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# **The Politics of Information:**

The Electronic Mediation of  
Social Change

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*edited by*

Marc Bousquet *and* Katherine Wills



electronic book review

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# The Politics of Information: An Introduction

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*Marc Bousquet*

The recent invasions of Iraq and Afghanistan by the United States rested in part upon unprecedented domination of information flow through military and commercial channels. Among the most obvious dimensions of this control include the sheets of data streaming through U.S. munitions, the corresponding degree to which the U.S. was able to interrupt opposing communication, and the various ways in which U.S.-based corporate media collaborated with the military in creating battlefield spectacle for global consumption. The Web of data enfolding U.S. military logistics enables central executive authority to act on the battlefield with the speed of a video game, and the media cooperated in giving the event a game-like affect for U.S. viewers.

Like any game, the invasion of Iraq had its own rules and terminology for would-be participants to learn. Within hours of the commencement of hostilities against Iraq, the public sphere was tagged throughout by a kind of “language of opportunity,” a set of new terms to be learned and circulated by those with a desire to participate in the war game. Adopting the militarized terminology of the spectacular moment (“shock and awe,” “decapitation,” “regime change,” “embeds,” “target of opportunity”) functions as a cheap and nearly effortless way for reporters and citizens to effectively participate in the spectacle itself. The new language is a kind of freemason’s handshake: strangers using the language of the Iraq invasion are able to recognize each other as persons who share the worldview, aims, and values of that invasion.

Furthermore, in a feedback loop, just as control over military and commercial information flow enabled the invasions, the invasions enabled previously unimaginable controls over military and commercial information flow, such as the “Patriot” act and such would-be sequels as Poindexter’s “Total Information Awareness” and Ashcroft’s Domestic Security Enhancement initiative (“son of Patriot”). With the assistance of a secret court, the U.S. executive enjoys substantial new freedoms to surveil, wiretap, and monitor the activities of its citizens. Even where a political will to oppose such excesses has surfaced (as in the limitation of data-mining by the government to non-citizens), the government has found it relatively easy to bypass these strictures – for instance, by

making police and intelligence use of data bases prepared for commercial use in direct marketing (which have not traditionally been covered by the same degree of privacy restraints as government data).

In the early 1990s, technological optimists represented the World Wide Web as an actual or potential public sphere or, alternatively, as an anarcho-subcultural new frontier, a place of self-fashioning where the liberal dream of autonomy and self-determination could be performed and realized. Many on the left additionally hoped, with Manuel Castells and others, that the proliferation of online interaction would foster new solidarities and social movements.

To a very real extent, some of this promise has been realized. The worldwide opposition to the invasion of Iraq, for instance, was in part coordinated by Web-mediated communications, and through this hijacking of the former Arpanet for purposes of peace, certain peace groups were able to stage massive demonstrations that compelled even the corporate broadcast media to transmit their message. For many political dissidents, Web-delivered independent news accounts of the conflict and the communications of the resistance movement constructed an alternative solidarity to the culture of “supporting our troops.” There were episodes of successful hacktivism, as when a spam campaign coordinated by Spain’s [www.noalaguerra.com](http://www.noalaguerra.com) shut down the website of that country’s pro-war ruling party.

Yet much of the hacktivist activity was not anti-war, but a partisan contribution to the conflict, as in the successful shutdown of the website belonging to Arabic television network Al-Jazeera by U.S. hackers who redirected the site’s visitors to a map of the U.S. with the slogan “God Bless Our Troops,” many of the weblogs posted by laptop-toting combatants, or the Al-Qaeda sympathizers who converted a U.S. student’s bulletin board into a propaganda outlet.

In the past decade, the World Wide Web and other virtual locations have become increasingly recognizable as managed and regulated space. It is by now clear that technological utopianism represented a widespread suspension of consciousness regarding the still-accelerating growth of commercial and state ideology, as well as a plethora of direct controls – an explosion of gateway structures, surveillance procedures, copyright protections, trademarks, standardization, advertising, certification processes, and other markers of intellectual property. The mutual intelligibility of commercial and state interests evident in the dizzying proliferation of technocapitalism and cybernetic governmentality over the past ten years make it clear that if the Web and other online spaces do in fact represent a public sphere, it is a public sphere vigorously traversed by property law and other structures of security, surveillance, command and control—the “informatics of domination” described by Donna Haraway in her 1986 cyborg manifesto.

How can students and citizens respond to this informatics of domination except with an answering informatic practice?

The five sections of this collection are devoted to exploring the possibilities of electronically-mediated resistance to a domination itself electronically mediated. In the first

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section, “Beyond the Voting Machine,” indie-media icons like DeeDee Halleck of DeepDish TV and Paper Tiger Television, Mark Amerika, Geert Lovink, and poet Charles Bernstein discuss the possibilities for forming oppositional consciousness and alternative solidarities. The next section, “Technocapitalism and the Politics of Information,” features a new interview with Donna Haraway by Lisa Nakamura, reflecting on the reception of the *Cyborg Manifesto*, essays on the social costs of digital capitalism by Tiziana Terranova, David Golumbia, and others, and some thoughts on alternative social arrangements by Nick Dyer-Witheford. A third section features discussions of intellectual property issues by Mark Poster, Caren Irr, Kembrew McLeod (who successfully trademarked the phrase “freedom of expression”™), George Landow, Paul Collins, Tara McPherson and Anne-Marie Schleiner. In “The Informatics of Higher Education,” Tim Luke, Ken Saltman and others discuss the consequences of technologically mediated management domination of the higher education workplace, learning environment, and citizenship mission. A final section, “Teaching the Cyborg,” features Katie King, Laura Sullivan, Greg Ulmer, Harvey Molloy, and others on the possibilities for arming students and ourselves with new tools for struggle, and of maintaining a horizon of alternate possibility in a world increasingly subject to commercial exploitation and executive command.



section 1

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# **BEYOND THE VOTING MACHINE**



# ***Section I: Beyond the Voting Machine***

## **Introduction**

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*Marc Bousquet*

This is 1933.  
This is Hitler's Germany.  
—*Missing Foundation, "1933" (1998)*

In January 2002, within months of the passage of the USA Patriot Act, the teenaged operator of alternative/anarchist media site *Raisethefist.com* was roused from his parents' L.A. home by two dozen agents of the FBI, Secret Service and LAPD, most wearing body armor and carrying shotguns. 18-year-old Sherman Austin's computer and collection of political literature were carried away: he had used the computer to simultaneously publish anarchist political views and some recipes for explosives manufacture. His bomb recipes were of the sort readily available in the *Anarchists' Cookbook*, or in books held in the average university or metropolitan library and on sale at Amazon.com. As Carnegie Mellon computer scientist David Touretzky reports, the same information is available on the websites of mass-media news outlets such as CNN.com (which has published a diagram that can be used to construct a pipe bomb). Charges were eventually filed against Austin under a 1997 law (18 USC 842p) making it illegal to distribute "by any means" information regarding the manufacture or use of an explosive device, and subsequently dropped.

One of the compelling aspects of the case is the special paranoia that the government reserves for electronic communication. With the passage of the putatively anti-terrorist "Patriot" act, the federal government acquired vast new powers to gather information about U.S. citizens and residents. The direct expansion of executive power by the Patriot act and related "anti-terrorist" measures include the establishment of a secret court with special powers of subpoena, the relaxation of laws governing attorney-client privilege (as a result of handling some domestic criminal procedures under the rules previously governing foreign intelligence gathering, Big Brother may in some cases be listening even when you talk to your lawyer), vast expansion of wiretap and surveillance

capacities, especially in relation to electronic communication, and the massive increase of penalties relating to “communication crime,” especially computer-mediated communication. U.S. judges are now required to grant the federal government permission to gather information on the Web surfing of any citizen if the government believes that this data might be “relevant” to an existing criminal investigation: the investigating agency is not accountable for this snooping to anyone, even the person investigated or the judge issuing the order. Service providers are protected from liability when they “voluntarily” share most kinds of information with investigators.

This troubling expansion of surveillance is only a fraction of the executive will to power expressed in such would-be sequels as the Pentagon’s Total Information Awareness initiative or the Attorney General’s 2003 Domestic Security Enhancement Act. By total information awareness, the Pentagon envisioned a massive data mining initiative that would capture, evaluate, and store the “information signatures” of suspected criminals through the creation of single central data bank combining the information now held in such diverse (and privacy protected) databases as hospital, physician, and insurer files, credit card and bank records, phone bills and e-mail accounts, book borrowing, Web surfing, and so on. With the explicit goal of breaking down legal barriers between such information streams as one’s employment records and one’s medical records, TIA is intended to provide the U.S. government with the capacity to instantly create a total data profile on anyone, anywhere. Tens of millions have been awarded to military contractors in connection with the project: as of this writing, the Defense Department is barred from engaging in data-mining the records of U.S. citizens, but continues to develop the program for overseas uses, as well as related projects such as a nationwide identification system and the biometric “Human ID at a Distance” program which brings together “gait recognition” (for target acquisition), face recognition, and iris recognition. The latter program as a mode of “perimeter defense” will have particular application for the militarization the borders surrounding Fortress America, as well as any lines the government cares to draw elsewhere, in the “homeland” or abroad. In some ways even more ambitiously dystopian, John Ashcroft’s Domestic Security Enhancement Act (the “son of Patriot”) aims to enlarge many of the government’s still-new powers to conduct surveillance, acquire data, and expel undesirables; provides for greater secrecy regarding government actions, such as subpoena and the detainment of persons; enhances penalties for attempting to evade surveillance by using encryption during criminal activity; and proposes to add DNA to the total information database of some individuals.

These “anti-terrorism” initiatives have consequences beyond the specific activities they limit or enable. They create an atmosphere of executive license that serves as an invitation to executive power everywhere (what we might call the “Patriot structure of feeling”). The evidence of this new executive dreamscape is piling up quickly, ranging from the Stasi-like ambition to create a nation of citizen informants (through

Operation TIPS), the hope for total executive control of the workplace (the creation of an office of “homeland security” was held up for months by the determined effort of Republicans to use the security imperative to break up the unions of the hundreds of thousands of federal employees reassigned to the office) to the virtual suspension of habeas corpus in connection with hundreds of 9/11 “terror suspects” – at this writing most of whom were still held without being charged for 18 months under draconian military law.

Ultimately we have to look beyond the specific prohibitions and prosecutions conducted under the Patriot laws, and look at the whole social formation surrounding their passage: the pattern of behaviors, values and material consequences associated with the circumstances that brought Patriot into being. In the broadest sense, the “war on terror” has produced an extraordinary narrowing of civil liberties in scenes of direct repression: in early 2003, for instance, there were two widely-publicized incidents of security-related censorship involving messages on t-shirts. (Yes, messages on t-shirts.) In one case, a Michigan teenager wearing a t-shirt labeling George Bush an international terrorist was ordered by a high school administrator to turn the shirt inside out or go home; in the other, a Connecticut lawyer was thrown out of a mall for refusing to remove a t-shirt with the slogan “Give Peace a Chance.”

The Patriot atmosphere of license under the sign of “security” invites entrepreneurial freelancing so that executive power everywhere – even the nebbishy vice principal and mall security guard in a nylon shirt – is invited to flex its muscles. But direct repressions like these are only a fraction of the story: every act of direct censoring is accompanied by countless acts of self-censoring, a regime or discipline in which average persons get the message of the security state: that inconvenience, hostility, possibly arrest and ostracism, can result from uttering pro-peace sentiments or satire of the executive. Silence becomes common sense, and the most pervasive form of surveillance generated by the Patriot structure of feeling is “Watch Yourself.”

The contributions in this section address the government’s current hysteria regarding electronic communication. Indie-media pioneer DeeDee Halleck observes in “The Censoring of Burn!” that censorship doesn’t require extreme executive powers, just a climate of fear, apathy, and self-interest. Some of the other contributions suggest that the government’s hysteria might be justified – because of the degree to which electronically-mediated interactions might provide opportunities for organizing dissent, monitoring the abuse of executive power, and creating a culture of solidarity, activism, and creative illegality. This is especially the case with the “Illegal Knowledge” colloquy between Geert Lovink, Ricardo Dominguez and Bruce Simon, and Chris Carter, asking such questions as whether activism should try to hack into the mainstream or develop channels of its own. Noting that “some disagreements are too extreme to be articulated politely,” language poet and host of SUNY Buffalo’s Electronic Poetry Center Charles Bernstein explores the future of thought in an increasingly criminalized Web. Ben

Voyles' "The Selling of E-thePeople" suggests both the passion for public speech and the degree to which that speech ultimately resists both commercialization and easy characterization. Fran Ilich's "Delete the Border!" traces the militarized informatics of regular border crossing between Tijuana and San Diego, ultimately narrating a creative disturbance of that regime in the Borderhack festivals. Finally, co-editor Katherine Wills and Alt-X publisher Mark Amerika perform an alternative to the Patriot discipline of the self in an exuberant re-circuiting of command and control.

# Electronic Pies in the Poetry Skies

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*Charles Bernstein*

Language reproduction technology – from the alphabet to the printing press to our current systems of photoelectronic reproduction – has a history of democratizing social space while at the same time not democratizing it enough.

Freedom is a relative value, not an absolute. The question is always freedom for what or from what, freedom for whom or from whom.

The utopian vision of the open spaces of the Web may also hold out the false promise that everything, at last, can be heard.

Nonetheless, our ideals for technology may incite greater freedom even if these ideals are not, perhaps cannot be, reached.

Authority is never abolished but constantly reinscribes itself in new places.

There is a virus out there but it is not trying to get to your hard drive but your outsides and insides.

The greatest contribution of small presses and magazines of the past fifty years has not been that they have been more “open” than the trade or commercial presses but that in many cases they have been more selective.

Every new path to freedom creates new, sometimes even more intractable, obstacles to freedom.

The goal of democratizing the Web, understood as an end in itself, may sometimes conflict with the creation of sites that allow for the articulation of alternative perspectives.

Populism is not the same as market share.

Access is a method not a goal.

The absence of physical or temporal bars to exchange in various interactive spaces does not necessarily allow for a greater range of exchange.

The group dynamics that hamper exchange in “live” settings have colonized our electronic interactions.

& you can never completely rid yourself of this virus but you can be a more or less hospitable host.

Decentralization allows for multiple, conflicting authorities not the absence of authority.

Authority is dead; editing begins.

Mass culture is not the same as popular culture.

Fostering dissent on the Web requires the invention of new formats.

Authority in the defense of liberty is not linear.

The destruction, in the U.S., of TV and radio as a space for the articulation of alternative political, ethical, and aesthetic points of view haunts all who imagine that new technologies might serve ends other than those of the market or its ideological underwriters.

For interactive sites such as discussion groups, it is always useful to consider whether the structure precipitates resentment over exchange, the average over the particular, mediocrity over difference, voice over thought, immediacy over reflection, recirculation over invention.

The purpose of supporting unpopular culture is not necessarily to make it popular but this does not mean that preserving unpopularity is itself a virtue.

In some ways, the intimate space of email discussion can leave one feeling more vulnerable to animosity than in “live” settings, where the presence of others serves as a buffer.

Freedom is never free.

The structural problem is how to foster counter-hegemonic perspectives, including aes-

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thetic ones, within an environment where accessibility and democratization are often used to erode such perspectives.

The Internet provides new opportunities for rumor, gossip, exploitation, and innuendo.

The lobotomizing of radio and TV has been done under the banner of democratization: Let the Majority Decide! Down with the Authority of Elites!

“This time it will be different” but never (quite) is and never is not (quite).

Majority rule via market and ratings systems, like our winner take all political system, has been far more effective than any state-run censorship in ensuring the minority rule of those with the greatest capital accumulation.

Electronic space is neither free nor unlimited because our lives are neither free nor unlimited.

Corporate America is now constructing elaborate Web on-ramp systems to control the flow of hits; that’s why AOL bought Time/Warner and not the other way around.

In some of the new Internet environments, there is a fairly high tolerance for flaming, ad hominen attack, libel, and diatribe, as if resentment is a measure of honesty.

The megacorporate control of the flow of hits, of consumer – not citizen – attention is far more important than short-term profits because the system of preserving profits depends upon it.

& sometimes there is nothing you can do about the virus, and those may be just the times when it seems most urgent to imagine that you can do something.

Not all unpopular culture is equal or equally worth supporting.

What’s the alternative?

The very ease of posting to a list may sacrifice necessity (not the same as substance) even while allowing for immediacy (not the same as urgency).

*Infrastructure, infrastructure, infrastructure.*

The Web necessitates ever more editing, more intensive intervention, lest our alternative spaces be rendered vacuous, or desperate, by default launching people into the official flows of information.

Yet righteous outrage is as likely to shut down exchange as provoke it.

Web space is not so much disembodied as differently bodied. And those different bodies can be as scary as the demons that haunt our dreams for human freedom.

While the proliferation of unmoderated spaces does of course allow for some of the otherwise unheard to speak, in the resultant din it may impossible to hear them.

We remain vulnerable to destabilization by *agent provocateurs* but also by provocative agencies within ourselves, our desire for purification through self-immolation.

Knowledge is constituted by the available information in a particular time.

It's not technology that will change the possibilities for dialogue but politics.

In my own experience as the editor/moderator of a listserv, I found it hard to be as grumpy as I needed to be and hard not to be too grumpy about the results.

The automation of language reproduction and exchange possible with the Internet is very alluring as it seems to save so much labor-intensive work in comparison to print publications or letters; ultimately, this is illusory since the labor of selection, editing, and involving participants/readers is still the essential ingredient, while the technical work of site and list formation and maintenance are themselves relatively complex and time-consuming tasks.

For alternative voices to make a difference, space must be created and maintained so that they can not only speak but also be heard; and this means creating spaces that earn the trust of their participants.

As much as we may be troubled by the growing concentration of "webtainment," we also need to be wary that as many of the most "ungoverned" sites purvey disinformation as offer critique.

Automation of language reproduction doesn't make things simpler but more complex.

If the discussion is always starting from scratch, the participants with greater experience may drop away.

Public space requires protecting rights as much as allowing access.

The contribution of small press publications is that they articulate specific, not general, aesthetic values; that they do not allow market forces to be the primary arbiter of value; and that they provide sharp contrasts with the otherwise available literature of the time.

Some disagreements are too extreme to be articulated politely.

The hardest thing is to create spaces that not only provide information but that also allow for exchange.

My own reluctance to impose sufficient restrictions almost allowed those antagonistic to the list to destroy it.

It may be as useful to participate in a conversation “over your head” as “at your level.”

The virus is in our systems of social reproduction.

The ideal of civility is as often a ploy to suppress dissent as a means of facilitating dialogue.

But because some things are beyond redress it does not follow that every circumstance is without recourse, nor every case without prospect.

There is a pleasure, also, in delusions: not of grandeur but of agency.

There’ll be a pie in the sky when you die.

But not likely.

*(January 2001)*

# Selling the Democracy Machine: e-thepeople.com

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*Bennett Voyles*

E- The People began in 1998 around a ping-pong table in a ratty SoHo loft. It had all the elements of a typical Silicon Alley saga, from overvalued stock options to prima donna programmers to radiator pipes that banged ominously in the winter—along with this novel twist: we thought we were doing something good. We were going to make it easier for people to communicate with government officials. The idea was that while you were e-mailing your congressman, we would be serving you an ad, and ultimately taking a modest fee for our part in rejuvenating the Republic.

As a business case study, there's no point in studying E- The People. We were like a thousand other dotcoms—long on ambition and confidence, short on almost everything else. (Even calling us a business is kind of a stretch: we never even had invoices until our second year of operations!) However, seen as a kind of biopsy into the American body politic, our story begins to get more interesting. .

The passion behind the outfit was a quietly audacious young Texan named Alex Sheshunoff. Alex and I had worked together previously on a city zine called *New York Now*, which attracted a little attention locally for its political commentary—mostly silly interactive cartoons making fun of Mayor Giuliani (my personal high point came the day his press secretary called us a “cheap and tawdry site” in the *New York Post*). Alex was the publisher; I was the editor. This time out, Alex asked me to be the executive producer. Since I enjoyed working for him and thought it would be more fun to try to sell democracy online than plus size women's clothes or sporting goods, I decided to stick around.

Alex's dream was to build a giant switchboard that would make contacting government officials as simple as finding a book on Amazon. E- The People, “America's Interactive Town Hall.” You could search by job title, search by location, search by a menu of political issues, even your own by zip code, and find the right official to e-mail your suggestion or grievance. As an afterthought, we decided to add interactive petitions, a suggestion of our 19-year-old Russian programmer. (Max was an Ayn Rand fan: his ver-

sion contained one Darwinian feature we later dropped: the Bad Idea Pile, a section of the site where all the weak petitions that couldn't get signatures would go to die of ridicule.) When we started, I thought the job was relatively simple and would take Max a few days. In fact, it took a year and a half and four or five programmers.

Then it was done, or nearly done. We had built a machine that made it possible for people anywhere to log onto our site and contact more than 140,000 local, state, and federal government officials by e-mail (we had almost everybody in there: if memory serves, even Monica Lewinsky was in the database). For officials who didn't have e-mail, we had made a deal with an e-mail-to-fax service, that would forward the letter by fax. You could search by issue; you could search by street address and zip code. We had even gone to the trouble of matching state legislators' districts to streets, which was a tall order, especially since so much of the country is still chronically gerrymandered, and at the time, only semi-computerized (in New York State, for example—I hope it's changed now—voters were assigned to districts after clerks looked at maps on the wall; at least that's what a clerk told me over the phone one day). There were bugs, especially at first, but on the whole, E- The People did what we said it would do.

Now came the fun part, at least for me: selling our democracy machine. My chief idea was that the only way we could sell something new and different was if we could associate it with something old and revered. That's how we happened to come up with the name "E- The People," and with the idea of this service being "America's Interactive Town Hall." This notion led me to mulling about the sentimental associations Americans have with electoral machinery in general (this was pre-2000), and the romance of the campaign. Finally, huffing on a treadmill one day in a SoHo gym, thinking about the stories of Lyndon Johnson's first Senate race—he crisscrossed Texas in anything that moved: cars, planes, even an early helicopter—I imagined the Grassroots Express.

My idea was to rent a bus and tour the country, whistle-stopping at the newspapers and nonprofit groups we hoped would be our clients, meeting with reporters and politicians along the way. This was 1998, remember, when for an Internet entrepreneur the only limits seemed to be set by one's own gall. Alex liked the idea, and in just a few weeks, he tracked down a bus, hired two frighteningly gifted PR people and a platoon of telemarketers to give some advance word of the arrival of our traveling circus, and in a very short while, put the show on the road.

In spite of all the preparation, it was a surprise to me to actually find myself three months later, in Lubbock, Texas, driving past the Buddy Holly Memorial, on our way to Waco. In the parking lot of the city library we had just met three TV crews, two librarians, and a frightened social worker with Tammy Faye eyelashes. She had reason to be frightened: dressed in our spiffy blue E- The People golf shirts, demonstrating cached copies of the site on computers on board the bus, we looked like members of some kind of cult. It didn't help that the Grassroots Express wasn't the earnest school bus I'd first envisioned, but a plush, leather-lined touring coach generally rented by cor-

porations for golf outings or country western singers for tours. True, we had gone to the trouble of wrapping it to look like a giant mailbox, but the illusion wasn't especially effective. And that night, outside a Dairy Queen in north Texas, stopped in the dark with the running lights on, I thought it looked more like a silver space ship.

We gradually became a little less—and a little more—polished, and people stopped looking at us with quite the same fearfulness. What we realized was that we needed to seem more relaxed, and we fixed up the bus to give it a more lived-in look, more like a kind of mobile campaign headquarters. That's when I began to notice that, although we always said that E- The People was a nonpartisan service, people saw us with their own agenda in mind. Lefties saw us as left, right-wingers saw us as right, populists saw us as populists.

In point of fact, we were genuinely, perhaps absurdly, nonpartisan. Alex wanted people to participate in the process, and thought the private sector was the best mechanism to encourage it. A peculiar kind of idealism, but maybe the only kind that was possible in the Nineties. The rest of us weren't an especially political lot either. The design and marketing people tended to have that kind of reflex liberalism that goes along with being young and working in media in New York City. For my part, I just wanted to see our wonderful democracy machine accomplish something. If pressed, I would have babbled something about free speech that was heartfelt but perhaps not as close to my heart as the joy of imagining that we were making a little minor history. The programmers, on the other hand, tended to be more complicated. Most of them were libertarians of one stripe or another. Our CTO kept a picture of Alan Greenspan above his desk, looking out over the room like some kind of world-weary archangel.

A T-shirt with the names of 80 cities on its back and a book of clips an inch thick is all that's left. At the time, whether I was aboard the Grassroots Express or back in Soho, moving a little cutout picture of the bus around a national map an inch at a time every day, I felt that maybe we were on to something big. In nearly every city we visited, two or three TV crews were there to meet us. In Los Angeles, a reporter from the AP rode with Alex for three or four days, and likened Alex to a modern day De Tocqueville. Sen. Barbara Boxer visited the bus and pronounced it just the sort of thing that the country needed more of. At one point that summer, there were stories about E- The People on every newsstand in America. Hundreds of newspapers and magazines wrote about us, from Forbes to the Utne Reader, Business Week, the New York Times, even the Financial Times and Der Spiegel ("Der Demokratie Maschine"). We held rallies, we served barbecue lunches to local social service directors and politicians; we even came perilously close to planting a speech in the Congressional Record (a lobbyist we hired to make introductions in Washington said we could get one of her "pet congressmen" to do it, but Alex demurred). At the end of the tour, in Austin, we even arranged for Ladybird Johnson to totter on board the bus and listen politely to our demo.

I've often wondered what it was about the tour that earned Alex his first 15 minutes of fame. Part of it had to do with those associations to politics and various journeys

that had started me thinking about the bus. Part of it had to do with providing a photo op for something inherently intangible: the Internet. Finally, I think we caught the hope of the time that technology would somehow make us better people than we were. (I've since learned that similar hopes have floated upward whenever a new mode of communication has come around, from the post office and telegraph on down to the present; it's almost part of the process, a bubble of technological idealism that inflates at the same time as the stocks.)

The issues we imagined that our users would tackle would be small and practical—a busy mom sending a letter to a park commissioner to fix a broken park swing was our standard example. We imagined ourselves building a kind of better post office—giving the people their own franking privilege. We were creating a kind of Jeffersonian world where citizens would e-mail concerns to their representatives in their state capitols or in Washington, and everyone who wanted to could “be heard”.

Then, in the months that followed the end of the tour, we learned that when it came to understanding what the People wanted from E- The People, we were all wrong. In point of fact, our users weren't especially interested in writing their congressman, or their mayor, or anybody official. They wanted to be heard all right, but most of them wanted to be heard by each other, not some congressional aide. (Almost no one wrote a letter; our users preferred petitions by about a 10-1 margin.) They also didn't care for local issues. Nobody wanted to fix that park swing we kept talking about. Though some had odd pet projects: solve dog and cat overpopulation by putting birth control drugs in their pet food. Or: keep federal grazing land open so America can continue “to produce some of the FINEST STEAKS that can be found anywhere in the world”; discourage child abuse by placing pedophiles' pictures on billboards. For the most part, however, the issues that concerned people most were largely national and highly emotional. Impeach Bill Clinton; get Mumia Jamal off of death row. Instead of a better post office, we had accidentally built a kind of karaoke bar for political debate.

The good news is that in general this system seemed to work pretty well. People signed petitions they liked and wrote long messages on our discussion boards about petitions that they didn't like. After six weeks on the site, the petition would be sent on to the official to whom it was addressed. The only problems that arose were the occasional bad egg. One problem in particular was a southern gentleman who liked to sign his comments C-4, and liked to try to intimidate and threaten when he could not persuade. Automatic searches took out profanity, but we couldn't do much about C-4's threats until I was eventually able to track him down to Lexington, KY, telephone him and ask him to stop. He was pleasant enough on the phone, and fortunately for everyone calmed down after that.

Aside from C-4's vicious streak, he was a typical E- The People user: older, rural, male. One market research study we conducted found a disproportionate number of our users were rural single men who weren't especially well-educated, but read more than average. (I joked about E- The People attracting the valuable Unabomber demographic. Why this was so I don't know. I have read that real-life petitions do better in the South

than other parts of the Union because people are more polite and more likely to sign out of civility. Maybe a similar principle was at work here.)

This all struck me as depressing at first—I really did want to see E- The People “do something,” and not be the home of a few cranks—but lately I’ve begun to see their non-doing in a more positive light. It turned out that the users of our democracy machine were even more democratically minded than we were: they weren’t interested in petitioning some wise statesmen to come solve their problems; they just wanted to find other people who would listen to their ideas.

When I talk to Alex about E- The People these days—I left two years ago, and he’s since donated the operation to a nonprofit group which is transforming E- The People to a dot-org—he talks mostly about the bus tour and the people he met on that 24,000-mile trip. He also speaks of the unsatisfying nature of publicity, not because the moment didn’t last, but because it just didn’t make any difference to him. He says he’s grateful to have learned that in his 20s, instead of seeing that as something to aim for later in his career. For me personally, I think mostly of my part in helping to create a circus like the Grassroots Express, and how I loved that campaign beyond all reason, with a reckless, carnival joy. I think of the waves of expectation that I could see flow towards

Alex at some moments on the tour, when our visitors’ eyes would mist over with patriotic nostalgia or populist glee or whatever it was the bus and the site had conjured up for them, and I would feel that our visitors were the ones who were really creating E- The People, not us. I think too of the cognitive dissonance between what we saw—the earnest bureaucrats who visited the bus, the mad homeless who wandered by, taking fistfuls of buttons and pens—and what people saw on the evening news. How in every city the TV crews would dutifully film our three-minute infomercial, complete with easily digested talking points, and serve up our staged images with fewer questions and fuss than we would have gotten from an advertising film crew.

I still don’t really know what to make of E- The People, either as an episode in my own life or as a sign of the times. It’s tempting to see this story as another victory of irony over idealism—a comic novel in which a party of true believers goes out to save the country and finds that the country doesn’t actually want to be saved—but what happened strikes me now as a little more complex than that.

Sometimes I think about a Dairy Queen where we stopped one night for dinner out outside of Midland-Odessa. The bus had broken down earlier, and now that it was running again, we were happy to be someplace where there were a few other people around. We ate our burgers in the back of the restaurant, in a room where the Kiwanis Club met. Along with their banners and photos, there were two shelves where the members kept their coffee cups, each cup with someone’s name on it. I remember going to a meeting of one or two of these kinds of clubs in high school in my little town in Oregon (the boosters were always giving out awards or scholarships), and sitting through the silly songs and glad-handing and finding it all kind of ridiculous. I’d read *Babbitt*, and I knew it was certifiably ridiculous. Yet, looking back on it, I’m not so sure. They were certainly enjoying their day together more than they would have if they’d been eating a

tuna sandwich by themselves in some back office. They were also helping to make our town more than a string of strip malls, or at least to make it feel like more than a string of strip malls. Given that we are herd animals by nature, it strikes me more and more that maybe those guys understood intuitively what I've only come to understand in the last year or two, and even more profoundly since September 11: we really do all need each other.

E- The People has not changed the world. It hasn't even changed a small part of the world. What it has done is give a few thousand people a way to get together and talk about ideas that mattered to them, and leave behind 225,000 electronic signatures on 5000 petitions. That may not be a big deal in the scheme of things, but in this strange vast country, so rich and so poor, so interconnected and so lonely, I'm beginning to think it's a start.

# The Censoring of Burn!

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*DeeDee Halleck*

The function of the university is to seek and to transmit knowledge and to train students in the processes whereby truth is to be made known.

—Statement on Academic Freedom, Academic Personnel Manual  
Robert G. Sproul, President, University of California, August 27, 1934

In 1993, before the Internet was a category on *The Hollywood Squares*, a group of students at the University of California, San Diego, set up one of the first websites. Wanting to take advantage of the university broad band, but also wanting a degree of autonomy, they built their own server, begged a few donations from local computer stores and repair shops and, with permission of the Department of Communication set up a server machine which they hoped would be a resource and an archive of political activism: it was called Burn!

For 17 years I taught at UCSD in the Department of Communication, which was founded by the late Herbert I. Schiller in the early seventies. Reflecting its origins, the department had a reputation for critical studies and support of free speech. The courses utilize texts such as Paolo Freire and Robert McChesney which emphasize the need for community empowerment and access to communications resources. Those very issues were to come home in late spring of 2000, as the department became embroiled in a struggle around freedom of speech that put to the test some of the theoretical concepts regularly featured in the midterm exams of undergrads and dissertation drafts of the graduate students. This struggle was over the Burn! website.<sup>1</sup>

The UCSD campus had been built over the remains of a military base on the desert cliffs of La Jolla in the totally administered style characteristic of the University of California. There was, however, an enclave of negativity in an abandoned Navy shed on one side of the campus that had housed the shower stalls for military recruits. This had

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been commandeered by students in the early 1970's who turned it into a kind of free space, named after the hero of the Cuban revolution, Ché Guevara. The Ché's vegetarian communal kitchen and cafe style gathering room served as the center of campus activism during the Vietnam War. With the post-war waning of activism, spurred by the death of UCSD's leftist mentor Herbert Marcuse, and the cleansing of radicals from the UC campuses by Governor Reagan, the Ché lost much of its initial impetus, until only the beret-topped face of the martyred guerrilla, painted on the exterior walls of the cafe, remained of the militant days of the past.

There were those of us who worried that the lack of activity at the Ché would spell its doom and the administration would finally be able to remove this pimple from its corporate face. In a move to rekindle interest in the resource, I decided to hold my classes there. This was also a way for me to escape the increasingly sterile atmosphere of the official classrooms. Concurrently, several students with a similar aversion to the university computer labs decided to set up a resource called *Germinal*, which would be a cozy Internet connection as an adjunct to the café: a place with terminals, 'zines, Paper Tiger videos and militant posters, modeled after the "info-shops" in Europe. The idea was to give students an option beyond the cold industrial atmosphere of the official computer labs, and a place where they could collaborate and create and get in touch with activists from around the country. The server was to be the center of this resource, with access to the fast and wide bandwidth of the university Net. With the growth of computer activity on campus, the university set about to upgrade its network trunk lines. The students were assured that the Ché would likewise be upgraded, but the lines bypassed the Ché so the Internet activity at the cafe was limited. The university was unwilling to do anything that would encourage students to use the Ché, as they saw it mainly as an "undeveloped" piece of real estate that would make way for the future expansion of research labs.

It was in this context that the *Burn!* website arose in April, 1993, through the organization, *Germinal*. Initially a text-only connection, the site developed and its visitors grew in number. People from around the world found their way to one of the first non-corporate websites. In order to be connected to the faster main Net of the university for the bandwidth needed to expand to graphics and to accommodate the growing community of users, the server, with the tacit approval of the Communication Department, was moved to the office of the Communication Department computer technician and hooked into what was by then a quite broad Internet connection.

The actual server machine was still owned and maintained by what became the *Burn!* collective, and supported by a few members of the Communication faculty. As I was the official advisor to *Germinal*, the department hookup for their computer was within my "research needs," in order to allow the students to use the extensive capacity of the university Net.

Over time extra memory was added, software was tweaked and serviced and the site (burn.ucsd.edu) became a sort of underground wildfire: picking up anarchists, rebels and a wide variety of international activists.<sup>2</sup> The server also had the capacity to host mailing lists, and be a service provider for groups who might not have such services available in their own countries or squats. It became known for its wealth of alternative political information, and was visited by activists and Internet mavens from all over the world.

This was conveyed in the Burn! collective's manifesto:

*BURN! Is...*

- *A freely-available collection of texts*
  - by groups excluded by the present global political order
  - which have been censored or are unavailable elsewhere
- *A laboratory for studying distributed (post-geographic?) social and political organization, publication, new forms of journalism and other cool stuff*
- *An experiment in cross-cultural communication and social organization*
- *A friendly place to experiment, learn, create and publish with computer communication technologies*
- *A group of activists working to prevent the enclosure of cyberspace and the domination of its inhabitants*

As one of the Burn! collective members put it:

We provide access to censored news and political viewpoints. Lots of people in places like Peru, Colombia, and Turkey can read things on our server that you could get tortured or killed for publishing in those countries, or that are simply unavailable elsewhere.

Among the special features of its archive were perhaps the most comprehensive online collection of graphics and texts from May 68 in Paris.<sup>3</sup> There were also drawings from Hiroshima and Nagasaki survivors, and a large collection of Spanish Civil War graphics. The site never flinched from radical political issues, and has maintained a steadfast non-sectarianism. It has posted anarchist archives, Marxist-Leninist manifestos, Situationist texts, and has been a uniquely open site for a wide range of political perspectives.

For many people around the world, Burn! has been a model of alternative communication. Most mainstream discussions of new technology center on business uses, for example, on e-commerce and initiatives by for-profit companies. Among the small but growing list of Internet researchers who study the uses of new technology by activists and community groups the Burn! website is seen as an important mode of Internet use. It is well known as pioneering a unique form of interactive posting and transparent dis-

course. Burn! was one of the inspirations for the tao site, based in Toronto. Another progeny of Burn! is the indymedia.org site, initiated in Seattle<sup>4</sup> during the WTO protests, which has had several million visitors while serving as a discussion board for environmentalists, union members and activists. Indymedia now hosts 44 location specific sites, including Prague, Chiapas and Melbourne.

Burn! has provided an important outlet for breaking news (during various crises in Mexico, Colombia, Peru, Bosnia, East Timor etc), for political art (the archive of posters from the Spanish Civil War), for environmental information, and for community exchange. Perhaps the key resource of the site has been the original materials, first hand communiqués from various insurgent movements: Mexico's Zapatistas, ERPI, PKK, FARC, MRTA, Liberation Tigers of Tamil Elam; organizer training manuals published by Brazil's MST; writings of antifascist groups in North America and Europe. In addition to posting space for web pages, organizations were also allowed to use the server for mailing lists. CHIAPAS-L on Burn! is one of the oldest mailing list on the Zapatista revolt in Chiapas, replacing the site from UNAM, which was taken offline. COL-INFO was for many years the only Colombia-specific mailing list in the world, and ATS-L provides difficult-to-find recent news on antifascist and insurgent movements to a worldwide subscriber base of about 500 people and news organizations. The archives of CHIAPAS-L and ATS-L represent some of the highest-quality resources available anywhere for people researching the last five years' history of these movements.

Most of the UCSD Communication faculty had no idea that this was taking place literally under their noses. One professor told me that he only heard about it when *Der Spiegel* called from Germany, wanting to interview him about the site. But they all found out about it when some of the university administrators pressured the department to get rid of it.

There were several flurries of activity that drew attention of the administrators (and the national security officials who probably alerted them) to Burn!. One happened when the Spanish government organized an e-mail bomb campaign against the website after closing down *Egin*, the Basque nationalist newspaper, and the *Egin Irratia*, (their radio station) in July 1998. In an unusual move for a government agency, a campaign of mail blitzes was initiated against the site, which caused a bit of consternation in the university network operations office. Literally hundreds of thousands of e-mails were suddenly sent to the site, almost bringing down the entire university mail system, and catching the attention of the network operators in the university computer office.

A similar thing happened with Turkey. Burn! hosted a Kurdish site, which was attacked by a huge volume of e-mails, emanating from Turkish government servers, although signed by "hackers":

Hi UCSD.EDU Administrator;

We are Turkish Hackers Association (THA). We send this e-mail to you because of <http://burn.ucsd.edu> ...We want (you to) remove this sites (<http://burn.ucsd.edu/~ats> is important for us) because these sites contain terrorism [sic] purposes material. If you don't remove this sites from your web server in 10 day, we will attempt to your servers with our 145 hacker member.

Yours Sincerely; Turkish Hackers Associations  
Sezgin Aynalibezgin  
[tha.2000@turkey.com](mailto:tha.2000@turkey.com)

Again the net ops people were alarmed and contacted the department about the problems of jammed lines. However, the response was not to close the site or question the use of the university net, but a more technocratic response: to ask for filter mechanisms which could limit the ability of people to jam it.

For two other incidents there was pressure from fairly high up in the university structure to demand that the site be closed. What is notable about the two campaigns to close the site is the timing: they followed two events directly involving U.S. foreign policy.

The first coincided in 1997, with the storming of the Japanese Embassy in Lima by the MRTA faction. Arm the Spirit, a Canadian autonomist/anti-imperialist information collective, posted MRTA communiqués on the Burn! website. The Burn! collective and Arm the Spirit took the position that this was a form of presenting primary source documents on events and organizations which were key historical participants. Indeed, the Burn! web site also had had documents for several years on the MRTA, but the aggression of the action in taking hostages brought the attention of the world to the Peruvian situation, and Burn! had hourly communiqués from inside the embattled Embassy. In the global press scramble for background information on these groups and the situation in Lima, the spotlight turned to the Burn! website during the tense standoff.

Since the Zapatista uprising in 1994, many pundits and “net terrorism” experts had been busy churning out theses about the dangers of Internet guerrillas. The Rand Corporation’s “The Zapatista Social Netwar in Mexico” sees this sort of communication as something that needs to be contained in the name of “global security”. The U.S. State Department web site [www.state.gov/www/global/terrorism/](http://www.state.gov/www/global/terrorism/) sees any use of the Internet by revolutionary groups as terrorism.

Sharp-eyed journalists in Europe realized that the MRTA communiqués were primary source messages and worked quotations from them into their stories, including the Burn! URL. Just as the 1994 communiqués from the Zapatistas had enabled the rebels to speak directly to the press, the government and the public, the rebels in Peru were

able to speak in the first person to the world. The net was becoming a formidable public sphere. Dr. Michael Dartnell of the Centre for International and Security Studies (CISS) and Department of Political Science, York University, has recently written, “A critical element in the formation of this public sphere is the ability to independently produce images and text to autonomously represent values, interests, and needs. Rather than simple propaganda, the focus then is the broader social, cultural and political context of electronic security. Insurgency online will be used to more accurately describe phenomena and assess risks.”

The URL of Burn! included the letters ucsd. Predictably, professors and administrators at UCSD were questioned by journalists and researchers about the University’s support for “terrorist” groups. This in turn brought the attention of the UCSD administration, some of whom were called and questioned as to why a “terrorist” organization would part of the august address, ucsd.edu. An article by Elizabeth Franz in *Time* said,

“In the give-’em-an-inch-they’ll-take-a-mile school of thought, the students who run the Solidarity Page and go by the name the Burn! Collective also provide links to a lot of other fringe political groups and radical organizations, including *Radikal*, the German resistance magazine banned in Germany; Arm the Spirit, the Toronto-based anti-imperialist collective; and the Zapatistas, who launched an uprising in Chiapas, Mexico.”<sup>5</sup>

*Time* drew a comparison between Burn! at UCSD and the State University of New York at Binghamton, which shut down a student site that had been posting material from the FARC (Fuerzas Armadas Revolucionario Colombiano). “It [the FARC site] was in clear violation of university policy,’ said Anita Doll, director of communications at Binghamton.” This was contrasted with the stated position of UCSD’s Communication Professor, Dan Hallin, whom they quote: “We’re proud that our students are part of that communications network. We don’t see any reason to get rid of it because it’s controversial.”

*Time* goes on to quote Jim Phillips, “terrorism” specialist at the Heritage Foundation: “It is outrageous that groups who have attacked Americans repeatedly in the past were allowed to worm their way into a situation where American taxpayers subsidized their propaganda on the Internet.”

In a *San Francisco Chronicle* article, “Terrorists Get Web Sites Courtesy Of U.S. Universities” (May 9, 1997), Robert Collier states,

“As the U.S. government fights against international terrorism, some rebel groups have found a safe niche at American taxpayer expense in state university Web sites. In California and New York, South American guerrilla groups have used sympathetic students to get free space on university Web servers—prompting complaints from critics that public funds are being misused.”<sup>6</sup>

There have been other cases of university web censorship, often centering around visual arts web sites. Many of these instances involve visual arts students posting nude or sadistic photos, usually in the context of a final project for a one-time class, and their removal does not constitute any sort of communication disruption. What was unique about the Burn! case was that here was a web site/server which had over five years of service to a wide community of users. The disruption of that service caused a hardship for the many people and organizations around the world that depended on the server for their e-mail.

### **THE “THREAT”**

The Vice Chancellor of the University received the following e-mail in May:

Date: Sat, 20 May 2000 11:09:35 -0500

*Dear Mr Chancellor.*

I am a common citizen of Colombia. A country that has been submerged in a bloody war initiated by terrorists of the worst kind, drug lords and corrupt politicians. Probably the most demoralizing aspect of my country's life is led by the so called leftist guerrillas. These are groups of narco-terrorists dedicated to kidnapping, murdering, extortion, drug dealing and general destabilization of a weak democracy. I do not have to explain to you the nature of such terrible organizations that, just last week, in order to extort the sum of 3.500 dollars out of a humble woman they placed around her neck a collar-bomb that exploded some moments later in front of her family killing, not only this poor woman but the anti-explosives agent that was trying to disarm the contraption and seriously wounding another soldier.

The organization that committed such a heinous crime has found a safe heaven just under your nose, Mr. Chancellor. The main web page of the FARC is originated from the USCD page. No one in its right mind can understand how can any organization like yours, in the name of freedom of speech provide a means to spread it's horrible poison to an organization like the FARC, the so called "Fuerzas Armadas Revolucionarias de Colombia", and be able to sleep peacefully.

In the name of humanity, Mr. Chancellor, please shut up these monsters, and very probably save a few lives.

*Yours truly  
Rodrigo Bueno*

The courses in the Communication Department might discuss empowerment through communication, but here was a case of Internet use by third-world peoples that was actually effecting events in the real world. This was too much for the university to tolerate.

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The timing seemed especially significant, as the US Congress was voting on military aid to Colombia. The Burn! collective responded:

It just infuriates the Colombian military and right-wing elites that people are allowed to be exposed to the FARC's point of view. It seems to have particularly irked them that the web pages gave the FARC the ability to reply to their attempt to blame the FARC for the murder of Elvia Cortes. That was intended to be their "Gulf of Tonkin Incident" just before the vote in the Senate on the Clinton/McCaffrey military aid package. So when the vote failed, they demanded our heads, and that's what the Chair gave them. By the way, we don't think this whole piece of theater was cooked up entirely by the Colombian right. We strongly suspect that the U.S government is also involved.

### **PULLING THE PLUG ON THE SERVER**

June 1, 2000

From the Chair of the Department of Communication

To the Communication Department:

Last week and through this week, we have had an unusual barrage of complaints about the Burn! Page. We've had them for some time, often as frequently as once a week, and as they came in, I would try to deal with them, or direct them to someone who could. But last week some individuals started sending e-mail messages complaining in particular about the FARC page to a list of UCSD administrators, naming one vice-chancellor as the individual who was "responsible for Burn!." The complaint was also directed to Gray Davis and a list of other people, probably drawn from the university's home page. Very quickly, I started getting calls and e-mail asking that there be a response to the political content of the site...and I got a specific call from certain top university officials to either respond or disconnect the site. I have chosen to disconnect it.

As someone who has no individual participation in any aspect of Burn!, I am in no position to respond to the content of Burn!. Because the site is largely anonymous, there is no named individual who can be contacted by those who are complaining about the site, as a result, complaints are scattered across campus, directed at different people, and different university administrators. As often as I try to explain the goals of the site, the complaints find even more targets, and this week, they found targets who were very offended at being wrongly associated with Burn!. As a chair dealing with an anonymous site, with little connection to individuals who actually run the site and who decide its content, I have lost the ability to stand in front of it.

The server is now in my office, and I will await the instructions of the Burn! collective as to where they want to move the server. The content is still there—it has

not been removed. The requirement is that Burn! needs to find a new network address as the burn.ucsd.edu address is no longer available to them.

*June 1 2000*

*Dear Faculty and Graduates,*

As the faculty member who has been most directly concerned with the Burn! web site, I am disturbed that the site was closed without first contacting me. I was not informed about the notices which were sent to and from various UC administrators. This is a site which was initiated by students who were working with me and has been continued by students with whom I have been working for several years...On June 17, I will be presenting a paper at a public media conference at the University of Maine about this sort of web activism. The Burn! site is an integral part of this research.

I realize that this sort of access to a variety of political views and news will often provoke reaction and dissension, but I hope that in the interest of supporting open communication, our department can speak up for open dialogue and free speech. The web site has been an important source of global dialogue. It is also a key aspect to my intellectual research.

I am requesting that the server be immediately reinstalled.

*DeeDee Halleck*

The Chair responded:

*June 1, 2000*

The pressure about the Burn! site has been continuing for some time, and I've been dealing with it as the complaints come...Last week a new set of complaints came through. Like many before them, they were about the FARC page, but this time they claimed to be Colombians, and the messages were in Spanish. There were no threats in them, otherwise if there were, we would have called the authorities, but the tone frightened one of the recipients of the messages—a vice-chancellor who demanded that some response be made to the complainants, and he demanded that it be made clear he was not responsible for the Burn! page although he had been named as "responsible for Burn!." We waited it out to see if the messages would cease, but they didn't, they escalated and were sent throughout the system, including to the governor's office. At this time, I started getting calls from the administrators demanding that there be a person or a collection of individuals who would step up and name themselves as responsible for the site. I wasn't prepared to name anyone, and I decided that given the extreme pressure, and the uncertainty of how to protect the Burn! site, I would temporar-

ily disconnect it and locate the server in my office.

It is ready for the Burn! collective to move it to another address. You can take it yourself, or perhaps you can recommend one of the other links as a site for the page. It is obvious, as you say, that the page serves an important link to others, and it should be set back up again soon... at an address less vulnerable than this one to this kind of overwhelming pressure.

A response to the closing came in Spanish and English signed by the FARC-EP:

Since the beginning of this month, the chair of the communications department of the university of the state of California at San Diego, with an intolerant and disrespectful attitude towards the rights of information, expression and of opinion, disconnected the Burn! server...The presence, on said server, of the homepage of the Fuerzas Armadas Revolucionarias de Colombia-Ejercito del Pueblo (FARC-EP) was supposedly rejected via telephone calls by a few people who claimed to be students, and via e-mails from a few people who claimed to be Colombians. Let's assume that these claims are true. Do these people represent anything among the millions of Colombians who are suffering the rigors of the war that the State has imposed? This action not only silenced said guerrilla organization; many other organizations and people were left without the opportunity to submit their opinions, and information to the cyberspace community. The rights of these people are being flagrantly violated by a functionary who exercises her power in a dictatorial spirit. Her decisions are implemented without the participation of the community that she is supposed to serve. Independently of whether or not one agrees or disagrees with the just and necessary struggle of the Colombian rebels, what is above discussion is their right to inform, and the right of the community to inform itself with their version of the Colombian reality so that with at least the two versions the community can build its own criteria and opinions.

In view of the preceding, we request that you express your inconformity with this situation by sending this message to the people and addresses that follow.

We denounce:

[a list followed of the e-mail addresses of the Chair, the Assistant to the Chair, the Vice Chancellor, the Chancellor and the President of the UC Regents.]

*For their attack on freedom of expression, of opinion, and of information of the community. We demand the immediate and unconditional reconnection of the Burn! server.*

## REACTION TO THE CLOSING OF BURN! FROM THE BURN COLLECTIVE

After seven years online, the UCSD Communication department chair...has censored the project hosted at burn.ucsd.edu. (The Chair) has made the decision against the wishes of the majority of department faculty and graduate students and without consulting or even informing any of the department faculty or students involved with the project, reported under pressures from the UC president Richard Atkinson. No explanation or justification for the shutdown was given, nor was any opportunity for a hearing or reconsideration of the decision. Host records were simultaneously removed from campus DNS servers, rendering burn.ucsd.edu nonexistent. Only a few hours advance warning was given to BURN! project representatives, leaving them no way to even contact most system users to inform them of what had happened or to arrange for moving to another address. When students retrieved the server hardware from the department chair's office, the CPU board no longer functioned and the Master Boot Record on the primary hard drive had been damaged. After ordering themachine offline, the department chair left on a trip to (Europe) for two weeks. The other faculty and graduate students have spent the last week debating what to do.

From informal communication with people in the department, and from statements by UCSD's campus spin doctors, we know that the University had received some complaints about burn.ucsd.edu from right-wing elements in Colombia, who objected to BURN!'s publication of information on the FARC-EP (Fuerzas Armadas Revolucionarias de Colombia-Ejército del Pueblo), and found in this an excuse for censorship. The university also claims that they didn't know who was responsible for the server, and therefore had no place to direct these complaints. This is patently false. More than ten BURN! members attended a department course-group meeting late last year, where they formally designated one student to be their official liason with the department. Last fall, a memo was also sent to remind the current department chair about this designated representative, and providing contact information. Both paper and e-mail copies of this memo were also given to each department faculty member. Also, the BURN! main homepage had a large disclaimer explaining that BURN! is a student project and that the university and communication department are not responsible for its contents. E-mail addresses to contact the BURN! project appeared prominently in several places, as well as hyperlinks to a web-based "corkboard" for public comments. In addition, the standard e-mail addresses postmaster@burn.ucsd.edu and webmaster@burn.ucsd.edu have always functioned and were monitored. By making these claims, university administrators are trying to obscure their eager complicity with right-wing Colombian elites in censoring the views of the FARC-EP and denying everyone access to the many other unique and hard-to-find resources published on BURN!

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Because The Groundwork Collective opposes censorship, we have decided to publish on the Groundwork website the materials formerly hosted on burn.ucsd.edu when it had its home in the UCSD communication department.

Statement (of the Groundwork Collective): The Groundwork Collective does this for two reasons: first and foremost, we are opposed to censorship of any kind and it is dangerous to allow anyone get away with it for any reason; second, the Groundwork Collective has been a registered student organization at UCSD for over 25 years and has a binding legal contract with the university. As such, the university cannot possibly claim that it does not have a place of contact to direct complaints against the site. There should now be no reason for censorship of any kind as the Groundwork Collective has formally responded to all official concerns supposedly created by the previous publication of the site. If they now try to censor the Groundwork Collective, it will be interesting to see how the university's excuses change.

*Yours in struggle,  
Burn! collective*

A graduate student posted a series of questions about the issue to the Burn! collective. One of the questions was why Burn! couldn't use a commercial server. This was the collective's response:

The UCSD communications department was probably one of the most secure places to host our materials, and will not easily be replaced. Before we hosted them, The FARC-related materials had already been forced out of at least 2 commercial ISP's and 2 universities in the US and Mexico by these same intimidation tactics. And every time somebody caves in it makes it even harder for the next site, as the attackers gain experience and feel more certain of their eventual success. No commercial ISP would tolerate these kinds of attacks for very long.

Another question was about the history of other attempts at closing Burn!

We've had lots of fights with fascists from all over the world. Turkish fascists howl about Kurdish materials we host. Peruvian and Venezuelan fascists complain about our publication of communiqués from the MRTA. Spanish nationalists mail bombed us for making Basque materials available. We've gotten death threats from Omega 7 & and Alpha 66 because of Cuban stuff posted here. KKK types from the US send us hate-mail and post anti-black, anti-Jewish and anti-Mexican stuff on our public corkboard. Macho men write to remind us that we're all fags. This latest stuff from the Colombian Right is nothing new. What IS new is the precision and timing of their attack, and the University's somewhat unusual eagerness to acquiesce. That's one reason we think this is coming at least partially from the US federal government.

In one communiqué, the Burn! collective, appealing to the self interest of faculty, alluded to the growing rift between the progressive faculty in the department and the increasing moves to privatize the university with corporate funding:

Imagine a new organization of radical faculty, dedicated to opposing this creeping privatization of the university. Next, imagine that such organization had its web pages, e-mail lists, accounts, etc. on Burn!. Wouldn't it then be quite a bit harder for anybody to mess with Burn?

## **REACTION TO THE CLOSING OF BURN! FROM USERS**

For the many users of Burn! the unplugging of the server meant that when they attempted to use their e-mail account or access a webpage, they would only receive a notice of termination. The Department of Communication shut the server without providing any forwarding site or notice as to the reason for the termination. The Burn! collective and others posted many notices that sped through other e-mail lists to inform the users of the situation:

June 11, 2000

Dear Friend of BURN!,

The UCSD Communication Department, which hosted the BURN! project at burn.ucsd.edu since it came online in April 1993 until we were censored for political reasons last May 31, is having a meeting on Wednesday, June 14 at noon local time (20:00 GMT). The outcome of this meeting will probably determine whether or not BURN! can continue to exist, and may also have fairly far-reaching effects on a variety of other radical projects in other places.

So we are asking for you (and all of your friends!) to send letters supporting BURN! to certain UCSD administrators on Monday and Tuesday. There are lots of other people here who support us, and we need to strengthen their position as much as possible in advance of the meeting on Wednesday.

The addresses of the chair and many members of the faculty were included and many passionate appeals came in. Several members of the faculty assumed that I was the one orchestrating those protests. One faculty member posted this to me:

DeeDee— The use of comm-talk to clog faculty mailboxes is almost certainly going to have a harmful effect at this stage in the process. The faculty have done what is do-able. I see absolutely no good coming out of an organized effort to hurt the faculty.

As is clear from the following excerpts from the messages which were sent to the

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department, many of which were posted on June 1 and 2, the day after the server was pulled, the response was not one which I or even Burn! needed to “organize”. Nor were any of these posts intended to “hurt” the faculty.

From Spain:

My first e-mail address was through Burn!. The recent (closure) greatly saddens me. If there is anything that those not associated with the university can do to ensure the survival of Burn! and similar forums for independent voice keep me in mind.

From Mexico:

As the director of the Mexico Solidarity Network... As the director of the Mexico Solidarity Network, a national coalition of 85 organizations, I write to express my deep concern over your censorship of the BURN! collective at UCSD. The BURN! listserves have been important sources of information for people all over the US. By closing BURN!’s listserves, you are silencing this important source of information.

From England:

I’m an academic and lecturer in an English college, probably akin to your community colleges. I am extremely disturbed by the threat to the BURN! project. Aside from the censorship issues, their site has been an invaluable resource to me and is one that I have recommended to other history, social science and politics colleagues of all political persuasions. It has proved invaluable. I urge reconsideration.

From the American Library Association:

As a Councilor of the American Library Association, a group dedicated to the protection of open access to information, intellectual freedom and free speech, I deplore the action, taken in response to political pressure, to shut down the BURN! website.

I have had many occasions to visit the site and have, as a librarian and social activist, referred many people to it. In my considered opinion there can be no legitimate reason for shutting down this outlet for information not found elsewhere.

It will be seen by many in the academic community as a rash and unprincipled move which reflects badly on both the Department of Communications and

UCSD. The decision should be reversed immediately.

From the University of Warwick, UK:

As a Ph. D. student the BURN! site has provided me with invaluable material on the conflict in Colombia on which I am basing my research. In my humble opinion, universities should promote and maintain freedom of speech and here we are encountering again a new case of net censorship motivated by unclear political means.

From Free Speech TV, Boulder, Colorado:

[Burn!] has provided information censored from the corporate media in the United States... The University's action seems one more proof that there is diminishing space within the institutions of the United States for voices that do not toe the party line. The absence of those voices from corporate media underscores the reality that the "market place" is as efficient a censor as the Soviet Ministry of Propaganda ever was. The overt censorship demonstrated by the disconnect of "Burn!" indicates that the censors are willing to use force when the normal means of censoring opposition voices proves inadequate.

From the Seattle Public Library:

I am a librarian. I use web-based information for our library patrons extensively...We encourage our patrons, especially students, to use primary sources when available. The BURN! web site provided such information about FARC. Shutting down the site looks like nothing else but censorship. The information found at the site cannot be found anywhere else.

From South Africa:

Burn! collective (and the web site) is invaluable. People from all over the world are able to remain "in touch" with events happening elsewhere. (and we don't all watch CNN's spin on world affairs.) Having lived under a repressive regime of apartheid, where censorship was commonplace and information was suppressed and distorted, it is distressing to note that in the "world's leading democracy", any institution should apply such restrictive measures. Certainly in South Africa, restrictions on the access of information (which were adhered to by most of the academic institutions and the press) were followed by partial and total bannings of individuals, organizations, newspapers, etc. The unwillingness and/or inability of media sources and academic institutions to resist the oppressive regime created a silence that allowed inhuman conditions to develop in this

country. and after almost seven years of democracy, we're still trying to untangle attitudes and ideas developed under the ignorance of censorship.

The closure of this website causes one to think back ... to voluntary censorship, official censorship, bannings, detention, torture, murder ... an ugly path, to trample on human freedom.

I would hope that you act quickly to put the Burn! server back on-line, and restore some part of the spirit of freedom of information, and some belief in our common humanity.

Harry Cleaver, from the University of Texas at Austin, who has tracked the evolution of the Zapatista use of the web wrote to the Department:

According to those reports you, or others in the UCSD administration, ordered the closing of Burn! because of protests letters from Colombia from those opposed to the existence of a FARC webpage! I have read several of those letters. None of them threatened anyone; they were just the normal sort of protest letters one expects from those who don't want the other side's story to be told. This is common in cyberspace and it is what makes it a freer media than any other....For the UCSD to shut down a student Internet operation just because someone objects to the content is a clear violation of academic freedom. If there is more to the story than that, if there are any mitigating circumstances, any good reasons why this decision should not be reversed, please let me know.

My interest in this is both academic and personal. On the one hand I publish on the role of the Internet vis a vis public policy making, and on the other I "own" a list that might be the next target of what appears to be politically motivated intervention into university affairs.<sup>7</sup>

A student at CUNY emphasized the loss for Latin American students:

I want to convey to you the practical implications of your decision. Hunter College has a large population of Colombian students...concerned about the civil war that is taking place in their country. Their concern has been intensified by the discussion in Congress of a \$1.6 billion dollar aid package to the Colombian government consisting largely of military equipment and training to carry out an offensive against the guerrillas of the FARC. Opinions among the Colombian students here are divided about both the FARC and the aid bill and feelings are running high. Students who sympathize with the guerrillas or who simply oppose the aid bill face intense hostility from other Colombians.

Young Colombians are afraid to tell their parents that they attended a lecture or a meeting. And yet a debate is taking place. There are currently no Spanish or English newspapers or television stations in New York City that carry critical views about U.S. intervention in Colombia, and certainly none that present the views of the FARC. The debate that is taking place depends on information gleaned from the Internet, in particular from the FARC site hosted on the Burn! server. Your decision to disconnect the Burn! server will effect the terms of debate happening at my school—it will effectively grant one side of the debate a monopoly on the means of communication. Whatever you may think about the FARC (and I am not a fan), they command the allegiance of several million very poor people in Colombia. Their views must be made accessible to people who are debating the merits of waging war on them.

It is a comforting myth of the Internet that no voice can really be silenced. Deprived of their site on the Burn! server, the FARC will find another server somewhere else in the U.S.. So we would like to believe. The fact is however that there are precious few servers that are in a position to stand up to the kind of pressure you are undoubtedly feeling if you have decided to shut down this server after so many years. Commercial hosting services routinely cave in to pressure to remove politically controversial content in a matter of weeks. Universities are really the only place where it can be hoped that this kind of material will be made available. If we take seriously the role of the university as an institution that fosters informed debate, discussion, and scholarship, it is our responsibility to ensure that voices that otherwise would not be heard have access to the forums provided by our institutions—both in lecture halls and cyberspace.

I trust that you are a decent and thoughtful person who already appreciates the fundamental issues of academic freedom and freedom of expression involved in your decision. You are in a position, undoubtedly not of your choosing, in which you have the power to permit or silence the voices of groups and individuals who are officially despised and, in the case of the FARC, the likely targets of direct or indirect U.S. military action. I don't doubt that there is considerable pressure on you to make this decision. I understand that this is not the first time such pressure has been put on you. I strongly urge you to do the right thing, to stand your ground, and to uphold the role of the university as forum for the free discussion of all ideas.

The effect on Latin American information services was indeed profound. David Wilson, who edits the Weekly News Update on the Americas, a monthly on-line publication, said that he had no idea how many of his correspondent/reporters were dependent on Burn! until the server went down. Many of his regular news providers were without e-mail or web sites due to the Burn shutdown.

The FARC-EP was likewise without e-mail. For those who were following events in Colombia, the timing of the closure seemed especially calculated, due to the impending vote in Congress over aid to Colombia. Some attributed the shut-down to negotiations which were going on in Sweden at the time. The U.S. had not been happy with the fact that the Colombian government has been willing to cede territory and concessions to the guerrilla movement, and would have reason not to want the negotiations to proceed. It is rumored that the FARC -EP representatives were left without e-mail for the negotiations. This is ironic in view of the statements of Ambassador Michael Sheehan, Coordinator for Counter-terrorism in a speech at the Brookings Institution, in February, 2000. He railed against cyberterrorism's ability to: "destroy or delay peace processes; provoke, prolong or entrench conflicts and otherwise accelerate the cycle of violence in areas of the world important to our national interest." One wonders why then it would be useful to impede the Colombian negotiations in the name of countering terrorism.

### **UCSD FACULTY AND GRADUATE STUDENT REACTION TO THE CLOSING OF BURN!**

A surprising number of the Department of Communication's faculty had never logged onto Burn! However, with all the increased attention, many of them would have liked to check out the site, but with the total shut down, there was nowhere to login, and no way to find out what all the fuss was about. There were several department meetings about the situation, and comments raged on the faculty/grad student listserv. One faculty member pointed out the proximity of the closing of Burn! and the debates in Congress about increased military assistance to Colombia:

June 1, 2000

I think that in any discussion of the importance of the Burn! website, and its role as an alternative political medium, we should have more information about what is happening in the unfolding war in Colombia (as well as the preparations for war in Chiapas), a war that is apparently heavily sponsored by the US. Unfortunately, for reasons that communications scholars ought to understand, accurate information with a historical perspective on the US involvement in the war isn't widely circulated.

It is quite a serious situation—many who are following it are calling it our next Vietnam—and my guess is that Burn! has been playing a very important role in informing an international community that would like to prevent yet another such monstrosity. So let's inform ourselves.

(This person then went on to post several articles from news sites about increasing US involvement in the war against the FARC.)

One of the graduate students also recalled the Vietnam involvement and wrote:

Not the least of these issues (which much be addressed) is the support and preservation of a source of information about the affairs of a region that our country's government is poised on the brink of becoming deeply involved in with potentially deadly and destabilizing (for Colombia) consequences. We may debate about the possibilities of grassroots activism and political action vis a vis the web, but who can say how things in Viet Nam would have turned out if there had been widespread access to contradictory information about the Tonkin Gulf baloney?<sup>8</sup>

One of the faculty wrote to urge that the department hold an open meeting to discuss these issues:

A department of communication, carrying forward an ongoing intellectual engagement with the relationship between power and expressive practice, should be singularly well-placed to provide for—and, indeed, to welcome—discussion of these issues.

Those who knew about and had supported the Burn! project were rather defeatist. The department computer technician who had been the one forced to pull the plug had this to say:

The forces of evil, combined with the cowardice of (or perhaps in concert with) the managers of the University have been successful in silencing the voices for change that the machine provided a platform for....Sometimes I think I'm wrong to resist the forces of capitalism. I think the only way it will die is for it to be crushed under the weight of its own contradictions, and resisting forestalls that occurrence.

The entire episode was deeply disturbing to many of the Communication graduate students who felt disappointed that their Chair and the majority of the faculty did not take a strong enough stand against the closure:

I, along with several other of the graduate students, have been very disturbed by the circumstances surrounding the removal of BURN!... I understand the difficult position that pressure from the administration has put the Chair in, but I think there are real and important issues that urgently need our attention here...Among many other things, I was disturbed by the way the personal security fears of senior university officials were described as a motivating factor in the pressure to remove the site. This despite the fact that NO THREATS HAD BEEN MADE (as it was explained to us). The fear, apparently, stemmed from the fact

that the e-mail complaints were *coming from “(the) Colombians”*. *I’m trying to follow the line of reasoning(?) here, but can only come up with the following: that complaints from ‘Colombians’ are akin to threats (even when no threats are made), because we all know how violent, dangerous, etc. ‘the Colombians’ are. [thought experiment: would the UC administrators be so terrified if they received a barrage of complaints from anonymous Canadians?]*

But this is really a side issue, since we as a community can’t be held responsible for the radicalized fantasies of senior UC officials. The same situation might (will) occur again when future e-mail complaint campaigns (which as we all know are relatively simple to orchestrate) are simply a pain in the ass to the UC administration. I’m concerned that the removal of controversial material becomes the easy and knee-jerk response of university officials, an informal ‘policy position’ that the BURN! situation would seem to provide a precedent for, and that the desire to make troublesome problems go away is satisfied at the price of a severely-restricted range of allowable debate within the UC’s electronic space.

I also wonder whether this latest incident, building on our earlier discussions re: university web policy doesn’t call for a more coordinated community effort to deal with these sorts of issues. I think it’s wrong ...to leave these sorts of decisions to the discretion of the chair. I do regard these things as matters of central concern to ALL members of the communication department, and don’t think we should put ourselves in a position in which the chair can, indeed is forced, to make what may amount to rather far-reaching policy decisions (although wrapped in the specificities of a particular case) in the absence of wider community input. Because these and related issues are only likely to grow in future, I’d like to suggest that we move to set up some sort of a web policy group or committee involving faculty, staff, grad and undergrad representation.

I would also support any move to invite BURN! back to the communication department server, although I don’t know if BURN! itself would choose to return (and I agree that given the dubious character of our public space, if BURN! can find a more secure home it would likely do well to do so).

Another student questioned the fact that the order for censorship came from outside the department. This presents questions about the traditional autonomy of the intellectual community which a department comprises:

Are we in action valuing more the request of someone from outside this dept. calling for the shutdown of the server over our valuing of academic freedom and protection of a space for political speech?

One of the graduate students who is active in Lesbian and Gay issues and who is doing research on the use of the web by activists wrote:

I think my concern is that often materials about queer sexualities meet with similar pressures and declarations of disapproval from the larger community. Many books with queer subject matter have been removed from community and school libraries on the grounds of their "objectionable content"...in fact, I am currently struggling to get my own book about queer youth into my old high school library; but, it has been deemed to "politically sensitive" an issue to put on the shelves.

This has been in the back of my mind since the beginning of the discussion of campus web policies and the Burn! site. If enough people object to a publication created by a queer collective on campus that did not have a spokesperson,<sup>9</sup> what would be the procedure for responding to demands for its removal? Would there be grounds if a large enough group (and/or an influential group) found it "offensive" to remove the queer group's server?

This same student a few days later wrote:

Ironically, I've been regularly mining the web for information on Queer Nation and the organization's history (currently an orals paper topic) to examine constructions of Queer Nation in various media as compared to internal/"private" records of the org...I came across a file online titled: "ATS-L Archives: ANTIFA INFO-BULLETIN, FBI Spying: A 'Public-Private Debate" ...and guess where the file was/is located?? [burn.ucsd.edu/archives/ats-l/1997.Jan/0106.html](http://burn.ucsd.edu/archives/ats-l/1997.Jan/0106.html)

So, in many ways my concerns that this dept. would not be in a position to protect work on queer issues has come (albeit circuitously and accidentally) to fruition.

One student drew parallels with the actions in Seattle:

Any administration that cuts itself off from dissenting viewpoints online sets itself up for defeat and underestimates the ground swell of popular support for alternative visions. If anything, the WTO demonstrations represented this in Seattle....It's in the best interest of the University leadership as well as ours to keep Burn! around.

As the consternation of the students became evident at the Department meetings and in the listserv, some faculty worried about the impression being given to the graduate students:

...in the eyes of the graduate students we are beginning to look excessively reticent and perhaps too passive over an issue that they obviously are very passionate about.

One faculty member had been away at meetings of the International Communication Association and came home to a Department in disarray:

I have been spending the past couple of hours catching up with the debates in the department. As I was reading through the e-mails, I felt a great sense of irony about myself: while attending an ICA conference in a Latin American resort (feeling very much like a tropical fish in a well-maintained fish tank) and listening to debates about the need for "canonic texts" in the field, a case study about free speech in cyberspace, questions of power, race, and international political economy, are unfolding in my own department.

These discussions were quite appropriate to current topics in the discipline and resonated with many of the courses offered by the department. This fact was not lost on one faculty member:

A department of communication, carrying forward an ongoing intellectual engagement with the relationship between power and expressive practice, should be singularly well-placed to provide for—and, indeed, to welcome—discussion of these issues.

One professor did not like the "attitude" of the Burn collective and seemed rather impatient and petulant. He reacted to a meeting at which the representatives of Burn! spoke with great passion about the need to restart the server and not keep the community of users without their resource:

Do they (the Burn! collective) have a monopoly on what it means to be "radical"? Must we concede to them the role of a vanguard in relation to whom other views appear to be no more than retrograde and reactionary?

When they accuse the faculty of somehow being suppliant and cowardly agents of the administration who, in their view, is in obvious conspiracy with the menacing world of corporate evil pulling the strings of every third world puppet dictatorship, must we simply accept it and chalk it up to their youthful bravado and naiveté? And by doing so, further confirm their assumptions?

Or is there perhaps an opportunity to open up a dialogue about the complex workings of power and responsibility, of authority and accountability within the university from which everyone could've learned something?...

When does a show of passion stir action and movement towards resolution, and when does it result in further foreclosing discussions, staging instead the liberal fantasy that identifies individual feelings of marginalization with the collective sufferings of other subjects in radically different settings? What are the strategic risks of employing a rhetoric of guilt and shame when approaching a group literally awash in good will and good intentions?

...and further: what is so radical about seeing the world, as I think the collective does, in starkly Manichean terms? Or claiming moral purity that allows you to cast others as unwitting or sinister pawns standing in the way of your crusade? Such a stance amounts I think to the fetishism of the political, or to a kind of romanticism about resistance. Of course, the collective is entitled to it, and not only because of their youth (indeed, this is not a stance that is restricted to youth as we all know. We are all prone to this sort of romance without which cross border coalitions and imagined solidarities would be impossible. But we are also responsible for taking a critical look at such romances and the effects they spawn, intended or otherwise). But the collective is not entitled to abuse this entitlement in the name of whatever it is they are fighting for. For this is what is at stake in the tone of their presentation, a tone which cannot be separated from their views, and which makes such views possible in the first place. It is a tone that carries with it not only the sound of idealism but also the specter of a certain violence inherent in confrontational rhetoric. It is therefore far from innocuous as anyone involved political organizing knows. And like all other forms of violence, it is productive as much as it is destructive of certain democratic possibilities. Yesterday's meeting was an opportunity for learning how such possibilities unfold.

Not all professors felt so troubled by the "tone" of the collective and their defenders. A faculty member who has written a book on the Internet said:

I would like to thank the graduate students for their comments and questions about the decision to shut down Burn! The matters you have raised are profoundly important.

### **QUESTION OF DEPENDENCY**

Geert Lovink, Internet researcher/activist, questioned why so much energy was going to the struggle with the university when there were now websites such as indymedia and freespeech that could accommodate such work. He objected when I used the word "censorship" in discussing the issue in a post to nettime:

Are you sure about that word censorship? I am actually happy that Burn! is no longer on a ucsd server. I think Burn! should finally grow up and become part of the movement of independent media and its centers. our server [www.contrast.org](http://www.contrast.org) here in amsterdam might host Burn!, but I think it should have its own server on the westcoast, no?

I responded:

While I fully endorse the need for independent media centers and independent servers in every community, I also think it is important to keep the public universities and university web open to radical ideas and radical information exchange.

In Holland (and perhaps Australia, and other relatively civilized societies) folks have access to certain public infrastructure. I wonder if the Next Five Minutes (the conference Lovink has co-organized several times in Amsterdam) could have taken place without public monies.

That sort of support is really non-existent here, except for what creative students, faculty and staff can carve out within the public universities. It is crucial that the few such spaces remain WITHIN those institutions.

I wonder if people around the world understand how quickly the U.S. is becoming a police state, where so many of our public resources go to build jails and equip the military.

Can you blame me if I am trying to help keep a tiny public space for Internet communication open to varieties of radical ideas in my not yet completely privatized university?

DeeDee

## THE RESOLUTION

In one of many ironies, one of the last posts to the website was the following correspondence, received on the very day as the shutting down of the server from a professor at another UC campus, asking for use of graphics:

From: Steve Rossen <[srossen@ucla.edu](mailto:srossen@ucla.edu)>

Subject: Permission to use graphics from your site in a book

Dear Sir or Madam: I have been a fan of your site for quite a while, but recently I had the opportunity to write a book with my wife for Houghton Mifflin enti-

tled "Teaching Online: A Practical Guide." A few chapters of the book are already up (<http://www.hmco.com/college>). In a chapter about Multimedia I used a few screen graphics of posters from your site and discussed how they might be used in a course dealing with the history of those times.

Professor Rossen was answered in the following post from a Burn! member using a different server:

The Chair of the UCSD Communications Dept, has censored us by ordering our server to be unplugged. This is the result of a successful letter-writing campaign against us orchestrated by the Colombian military and right-wing paramilitary groups, starting about two weeks ago. Our server was unplugged at about 9am this morning without any due process, and with less than 24 hours advance warning to us. We regret the disruption of your project and those of our other users.

Because of the many international cries of distress over the server being out, it was eventually allowed to be rebooted, the domain name restored and it was placed at Groundwork Books, the radical bookstore on campus on June 16, 2000, seventeen days after it was turned off. Although there is an open invitation for the server to return to the Communication Department, the Burn! collective felt that the action of shutting down the site was precipitous and hostile, and showed such disregard for the service that it was providing to groups from all over the world that they could not chance having that sort of arbitrary action occur again. Some felt that leaving it in the student center, which is periodically besieged by university administrators, would weaken its position, ultimately leaving the service without the theoretical and ethical support of a faculty supposedly committed to free speech and access to ideas and information. Several graduate students in the Communication Department deplored the move, stating that the Burn! server was something with which they were proud to be associated and which they felt was an important part of the department web presence.

This was one of the first posts received in the new location:

I am so delighted that Burn! and all of the associated pages—Arms The Spirit—and so on, are back on the Internet. Really, I could hardly contain my joy. I know a lot us in Canada will be feeling the same way...My sincere thanks.

Bethune Institute for Anti-Fascist Studies

## POST 9/11

There is a gap in the New York skyline. Airport personnel dressed in camouflage designed for the desert mountains of Afghanistan patrol with automatic weapons the airports and tunnels of the United States.

As we contemplate this changed landscape, I know that there are intense threats to the sort of information exchange that *Burn!* exemplified. At the very least, those posting information may be subject to careful scrutiny by federal authorities. A colleague who runs a community media center in a Midwest city had a recent visit from the FBI. Her center is the host server for most of the non-profits in her town. These organizations include everyone from the League of Women Voters to the local branch of Doctors Without Borders. Armed with both a search warrant and a judge's order, an external hard drive and two laptops, three FBI agents went to work on their central server, downloading data for four hours. My friend was not allowed to watch which files they entered and she had to sign a non-disclosure agreement that she would not discuss this incident with anyone. She is brave enough to violate that command (though fearful of giving out the name of her facility), but how many community and academic information spaces have been similarly violated?

The information wars are escalating.

## NOTES

1. Some say the name was derived from the film *Burn!* by Pontecorvo, starring Marlon Brando, about a slave revolt in the Caribbean, though others say the students just liked the in-your-face juxtaposition of the word "burn" with UCSD.
2. The rapidity with which this site grew, and the numbers of hits it garnered, is similar to the response to the recent Seattle-founded site, indymedia.org.
3. These graphics were used by Paper Tiger in the design of some refrigerator magnets. (See [www.papertiger.org](http://www.papertiger.org)) One of the graphics was updated to address Guillian's New York City).
4. Some of the technicians who set up indymedia had been members of the *Burn!* collective.
5. "The Real Revolution: Net Guerrillas", *Time Magazine*, July 21, 1997.

6. The Rand Corporation commissioned a study of “netwar”: David Ronfeldt, John Arquilla et al, “The Zapatista Social Netwar in Mexico”, Santa Monica, CA: Rand, 1998. See also Eliot A. Cohen, “A Revolution in Warfare”, *Foreign Affairs*, Vol. 75, No. 2, pp. 37-54.

7. See: Harry Cleaver, “The Zapatista Effect: The Internet and the Rise of an Alternative Political Fabric”, *Journal of International Affairs*, Vol. 51, No. 2, Spring 1998, pp. 621-640.

8. The Gulf of Tonkin incident (1964) was a fabricated attack that was supposed to have been carried out by North Vietnam. The “incident” was used by President Lyndon Johnson to attain authorization for a major escalation of the war. Most historians agree that it was part of a campaign by the Pentagon to win the hearts and minds of U.S. citizens to approve the war build-up.

9. The student is taking for granted the statements of the Chair and others that there were no “spokespersons” for Burn!. Although there were members of the collective who wanted to remain anonymous for fear of political reprisal, there were designated representatives who had been known to the authorities from the beginning of the Burn! website. There was also an e-mail contact on the web page which was never utilized by the administration. Nor was I, as the advisor to Burn!, contacted when any of the “problems” arose.

# Delete the Border!

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By Fran Ilich <[ilich@de-lete.tv](mailto:ilich@de-lete.tv)>

There was a time when I perceived the USA as some a kind of backyard to my city, Tijuana, a place where my happy family could go every weekend. We went to the US to enjoy ourselves, to buy our favorite groceries, get the clothes we liked and acquire the toys that drove our imagination. There was no question for me that the USA was the place to be, even though the government was bombarding all mMexicans with nationalist pride, to guard the borders against the USA, against imperialist invasion and *malinchismo*. In Tijuana, television was an Eenglish-language affair. There was no way that any young person with self-respect would give up Aamerican TV—tv—especially when the “Mmexican” broadcast alternative was basically reruns of old Aamerican shows (with bad Sspanish language dubbing). This I suppose was during the last moments of the Cold War.

Growing up in Baja California, was for me often more than I could manage. Just think for a moment what it is to grow up two and a half hours away from Disneyland, just five minutes from sunny California, but also to live the experience of the third world. Even by airplane, Mexico City was much further away. Between McDonald’s on the one hand and pyramids on the other, Tijuana was neither one thing nor the other, first world or third, modernity or historical landscape. And to further complicate matters, my mom had been a flower child of the hippy sixties, and my father a young intellectual who consumed international literature, including Ssoviet books. So their experiment (that is me) ended up reading everything, being exposed to lots of things. Trapped in Tijuana, every small thing I ever did nevertheless would end up compared to what a kid in Prague, Paris or Beijing was supposed to do.

So then....

So then we started getting old, slowly, living this phase called puberty, adolescence, and noticing that the houses in the beaches of Mmexico belonged to US citizens, that the people from the Mmexican government were as corrupt as they could be: the country was itself a business operation. We began to notice that what we thought were language differences stemmed from something much deeper than that. We might have

called it racism, but maybe that isn't the word for people who are simply not interested in Mmexicans, not unless they are cleaning their houses really cheap, doing the dirty work, or being that guy at the bar who gets them the next margarita.

As an exercise we can ask ourselves how many tourists from the USA want to make Mmexican friends in Mmexico? How many want to hang out in the places where Mmexicans are?

Cities in the north of Mexico like Tijuana are new. We are living cultural processes yet to be defined. Despite the fantasy of free flow, the border instead of being in a process of dissolution is still in a process of continuous (re)construction, both physically and psychically. For instance, in the 80s there was no material wall separating the national spaces. Now there is one. In one sense, this dividedness accurately represents the human relationship of the two countries and their societies. But many observe that all of the barriers simply describe the nature of the two countries' connectedness. The walls and guards can be viewed as participating in the active connection of the two countries, —serving as part of clever selection process ensuring that the USA receives only the “best” workers: those who are ready to pass lots of obstacles, abandon their past life, and be ready to settle in an environment where they'll be treated as the illegal Other.

Every time we were at the border gate to the USA the agents would ask questions: what are you bringing from México? Food? Bombs? Drugs? So we discovered that even our food was bad, that it was contaminated with bacteria, that our bodies played host to viruses capable of recreating diseases long forgotten.

And they would ask my family why my name was Ilich.

*—But that is a Russian name. Why?—*

And mom would smile, saying it was the name of that fabulous composer named Tchaikovsky. And that was it. That always got us waved through. And so I was free to shop in the land of the free. The agent would say bye as he was fiddling with his computer, making the next alien nervous while typing in the plates of his car. Because that is also inevitable for us: Mmexicans coming into the USA are aliens, not tourists, not travelers: aliens. What a nice warm word to receive one's neighbors!

This ritual happened every time. Dad would say “look normal” every time when getting near the border. Likewise the agents would always try to make us feel nervous. Why? Of course there were many nice agents. But the agents weren't the end of it. Sometimes at shops or parks I would notice we weren't treated the same by employees, or even acknowledged in a nice fashion by many people. So I could not help but know something was quite strange with us and this border even though, for me, a middle class Ttijuanaese and son of two Mmexican teachers, I really wanted to see San Diego (even all of the USA) as just another part of my city: the nice part, the place to be, the future. An agent asking for a passport and a visa to come to this other nice part of the city was in its own way perfectly normal.

Through the years there were many funny border crossing stories, and I couldn't possibly fit them all here. Once, when I was 18 years old, I was taken to secondary inspection because of carrying a Timothy Leary book and also because I was travelling

with an Aamerican citizen. This seemed amazing to me, so the next day I tried to cross again, but this time with a William S. Burroughs book. That time I was also taken to secondary inspection.

Prior to this, during the 80s my dad became a *rhodino*, but not us. That was the beginning of an extra border in our lives. His green card made him virtually an Aamerican citizen. So why did the rest of the family remain Mmexican? That made a lot of the agents suspicious. I especially remember one time in the 90s, at sixteen or seventeen years old, when I was arrested because of skating in a no skating zone, the police handcuffed me and held me against the street in the usual fashion of the 'Ccops' TVtv show, and then my dad saying afterward I shouldn't mention he was practically an Aamerican citizen or else he might lose his virtual nationality.

Those were the days when there where still many Mmexicans and Ccentroamericans trying to get into the USA via Tijuana, so you could see crowds and lines of them, all the way down the international highway, people camping and so on. I remember it was quite dangerous to walk in those places, not only because many of the people aspiring to cross were in complete poverty and desperation, but also because the people who took them into the USAusa were criminals: robbers, smugglers, drug dealers.

Back then there was a very Mmexican tradition, "smash the traitors." Because how could a Mmexican perceive another Mmexican that left his country for the USA, if not as a traitor? So this tradition involved hurting those who crossed. I remember one time after class, in high school, riding in a car with my friends, everybody drinking and smoking, and then when we got to the border area my friends threw bottles at the border-crossers. At least one of the bottles found a target. It made me wonder why did some Mmexicans think they were better than others just because they already enjoyed a middle class life in our chaotic system, while others more unfortunate had to leave for another country just to be able to eat. Back then there was a Mmexican answer to this, and it had to do with the word dignity, although I'm not sure that living in one's "own" country under such conditions involves large quantities of dignity. Such a nice word.

## KINDS OF BORDERHACKING

*Graffiti artists:* There was a graffiti krew in the nineties, they called themselves HEM, that is Hecho En México (Made In México), and they were basically a krew of teenagers from both countries. Kids who studied in the USA and lived in México, or Aamericans of Mmexican origin living in the US. They committed an amazing action against the border, one of those that impacted me the most, and perhaps the most naive and authentic. One morning the thousands of cars in line to cross into the USA could see just above the gate a graffiti that read: "sueño-kenos-HEM". This was just the signature of the individual taggers plus the name of their krew in Krylon spray painting. You have to understand: this wasn't just marking the border wall; this was placing a tag

on the US customs building itself. Yet not one of the local performance artists came out in support when the government put these teenagers in jail, or when right-wing groups targeted the tagging kids for assault and beatings. The left community was silent and even the democratic party was against taggers. They didn't like what this new generation was doing (much in the same way that we didn't like what the older generation was doing).

*Human organs and baby smugglers:* The legends say many older Americans buy the organs of healthy Mexicans who are worth more to their families dead than alive. Mexican infants are offered for sale as instant family members.

*Kid bunnies:* these are children, less than 13 years old, and sometimes even 6 or 7, whose job is to play with border patrol agents in order to divert attention from families who would immediately benefit from this confusion in order to start the race of their lives. They would sprint across the border entry, through freeway 5 (just where it starts), against traffic until they found cover in fields, a house, anywhere. Complete families would start racing with a backpack filled with their lives and dreams; the luggage of a please please please make this a bon voyage... and then families would split up against the rock of circumstance: those who got caught, those who couldn't run fast enough; those who were run over by a car. Do you remember those street signs of Mexican families running? I've seen them so many times, as much as they can be seen. And still just to think of it makes me want to cry. It's a sure bet. It never fails, like watching Cinema Paradiso yet another time.

*Narcojuniors:* kids spending their time on the drug business, smuggling illegal substances into the USA via borrowed cars, which sometimes they get to keep after a successful mission. In many border cities, this is one of the only ways in which young people can make a "fine" living.

*Polleros:* organized groups in charge of the exportation of Mexican cheap labor force into the USA. Their activity is treated as if highly illegal, although it is obvious that these persons are structurally permanent within the system. A few years ago their primary methods consisted of crossing people through the desert, but they have evolved in many ways, particularly the use of technology to make false ID papers.

*Students:* kids who decide to spend extra time commuting in order to get a U.S. education. One of their continual problems is language, both ways if they have to come back to receive Mexican education.

*Workers:* the original reason for the border and for the continuous human crossing of it.

## KEIN MENSCH IST ILLEGAL

In 1997, during a European event called "Documenta X", an idea for a Germany/Poland border festival was put forward. The festival was to be in the form of a camp where activists and artists would express their outrage towards the treatment of

illegal immigrants at the border. The camp became a reality in 1998, under the name *kein mensch ist illegal* (no one is illegal). In spite of several attempts by the police to cancel and sabotage the event, cyberculture personalities, artists, musicians, activists and human rights supporters successfully organized marches, talks, concerts and workshops. Through the years this effort has grown, and now the chain of border camps has grown to the point where there are now actions like Deportation Class, which happens in airports like Frankfurt International.

## THE BIRTH OF THE BORDERHACK

Inspired by international actions like *Kein mensch ist illegal*, Reclaim the Streets and the teknoalknoval raves of infamous sound systems like Spiral Tribe or Desert Storm, we decided to do our own version, in our part of the world. But we knew that Mexican authorities don't have a sense of humour, so such an event would be highly dangerous. The beginnings were really slow. We had to know the area and be sure that this is what we wanted; we had to make sure nobody would get hurt and, if possible, find a way to avoid the confiscation of our limited gear. In preparation, I wrote a screenplay in a UCLA extension course: the story started with a borderhack on both sides of the line. Screenwriting and thinking were as much as we could do at the time. A year and a half later, we found out that Alexei Shulgin was coming to Los Angeles to an event that Natalie Bookchin, a net.artist, was organizing as part of <net.net.net.>, a series of lectures and presentations sponsored by the California Institute of the Arts and the Museum of Contemporary Arts in LA. So I extended an invitation to Alexei to do an event in Tijuana. He said yes. We hoped that preparing for the 386 dx project of Alexei Shulgin was going to be the initial act of an independent media lab of our own. It turned out that Alexei couldn't come to Mexico because of visa problems: if he had crossed, he wouldn't have been allowed to return to the US because, as a Russian citizen, he was only given a one-entry visa. So we had to think of some way to make this happen. Natalie Bookchin set up a list with members of RTMark, Electronic Disturbance Theatre, Taco Shop Poets and Cinemátik. Soon we had the solution: Alexei would perform *on* the border.

This was in the message we sent to Nettime and other mailing lists (:

To: Nettime <[nettime-l@bbs.thing.net](mailto:nettime-l@bbs.thing.net)>  
Subject: <nettime> Cyberpunk Rock Knows No Borders  
From: borderconcert <[borderconcert@easylife.org](mailto:borderconcert@easylife.org)>  
Date: Thu, 16 Dec 1999 09:37:00 -0700

"Cyberpunk Rock Knows No Borders"),  
For Immediate Release

Contact: 323-644-1762 (US)  
011-52 (6) 6789571 (cell phone, Mexico)  
borderconcert@easylife.org  
<http://www.easylife.org/386dx>

Alexei Shulgin and his 386 DX Cyberpunk band will perform at the US/Mexican border on Saturday December 18, 1999 at 6:00 PM.

The internationally renowned artist from Russia was invited to perform at Tijuana Media Center, Cinematik (<http://cinematik.com>). Due to strict American visa constraints and complicated immigration bureaucracy, the only way for his performance to reach Mexico is through a crack in the fence at the border.

At 6:00 PM this Saturday evening, all are invited to join Shulgin and his 386 DX Cyberpunk band perform across the border. The band consists of a single old computer which sings rock'n'roll hits and features a multimedia light show extravaganza. Come to the border to witness the start of a new era in which computers are replacing humans at all levels, with or without borders.

We described our plan for the performance: "Shulgin will perform on the manicured lawn of Border Fields State Park, in the company of the uniformed gun-slinging men and women of the US Border Patrol, who will likely be patrolling the area for illegal Mexican immigrants. It is expected that the Patrol will execute a synchronous "ballet" for Shulgin's music by driving their distinctive white and green vehicles in the Tijuana river floodplain behind the artist." Since borders have become more permeable for products and less passable for people, we observed that Shulgin's computer would be allowed to travel freely between Mexico and the USA without a visa, but Shulgin must himself would have to remain behind the chain-link fence that separates his hosting country, the land of equal opportunity, from Mexico.

This Saturday evening Shulgin's 386 DX computer will be in Mexico. Assistants will hand Shulgin his keyboard (and the occasional taco) through a crack in the fence. All are welcome to attend in either the USA at Border Fields State Park or in Mexico at Las Playas de Tijuana (at El Faro, where the Pacific Ocean and the border meet).

To get to Border Fields State Park on the US side, take the Dairy Mart road (second of last exit on I-5) west until you arrive at the beach. In Mexico, take the Ensenada Highway west along the fence, get off at Las Playas, drive west to the beach, and then north to the fence.

End of message>

So immediately. At the performance, featuring Shulgin's computer-generated multimedia show, we had to check the area for places where we could borrow electricity, and so on. . In our view, the event was a hit, Alexei had to leave the area before the event started because the border patrol asked him to leave. Fortunately we had the computer on the Mexican side, and this was all we needed to keep the show going on. There were a few incidents that we learned from, including a clever Mexican opposition who were doing a binational *posada* by throwing candy among our electronics and cables hoping the kids would flood in and damage the equipment. After the attempted candy sabotage, the US border patrol turned on one of their best weapons against the electronic equipment supporting our borderhack: water sprinklers. After this first event, Natalie Bookchin and I decided to work jointly, and the <net.net.net.mx> series was born. Each of the lecturers and artists coming to participate in Los Angeles would also come to Tijuana. In discussion with people like Geert Lovink, Ursula Biemann, and Florian Schneider, the borderhack was born. even if Alexei had to leave the area before the event started because the border patrol asked him to leave. Fortunately we had the computer on the Mexican side, and this was all we needed to keep the show going on. There were a few incidents that we learned from, including a clever Mexican opposition who were doing a binational *posada* by throwing candy among our electronics and cables hoping the kids would flood in and damage the equipment. After the attempted candy sabotage, the US border patrol turned on one of their best weapons against the electronic equipment supporting our borderhack: water sprinklers. After this first event, Natalie Bookchin and I decided to work jointly, and the <net.net.net.mx> series was born. Each of the lecturers and artists coming to participate in Los Angeles would also come to Tijuana. In discussion with people like Geert Lovink, Ursula Biemann, and Florian Schneider, the borderhack was born.

### **EXCERPT FROM THE BORDERHACK! MANIFESTO:**

That is why we propose this Borderhack, a camp that does not pretend to destroy the border, but, in a worst case scenario, only to make us conscious of it. In the world of computers, Hacking is understood as the penetration, exploration or investigation of a system with the goal of understanding it, not of destroying it, and that is exactly what we are trying to do: to understand the border, to know what it represents and to become aware of the role that we play in it. All this with the goal of improving the relations between two worlds, the first and the third, Mexico and the US. We want not only to understand why this relationship has suffered under the influence of certain sectors of society that have fostered a climate of violence and racism, but also to understand the strange attraction that unites us. And what better way to accomplish this than by doing it right on the physical border?, spending three days trying to get to the bottom of the problem and really understand what is it that unites us and what is it that separate us.

We resign ourselves to looking through store windows as if they were postcards from Europe, knowing that we could only reach the other side in our dreams.

The border is unilateral, only when going from Mexico to the US. The other way around is a free zone: with no need for visas, tune ups, secondary inspections or paid permits. The border exists only when going North. The wall is “one way”. Our exchange rate is 10 to 1 in favor of the dollar, of the Americans. And then, at the end of the day we ask ourselves, *kein mensch ist illegal* (no one is illegal)? Or are we all illegal?

## THE FESTIVAL

Why borderhack? I try to think of an explanation that doesn't involve the actual hype of fashionable hacktivism, media activism, and political circus. For sure the answer doesn't involve terms and acronyms like 'digital divide' or 'wto', 'imf' 'fuck the usa', 'windows is not cool' or even 'capitalism is dead'. To be sincere we do know that the particular struggle of such a border action is so doomed that we try as hard as we can to economize resources in every possible way. Borderhackers also have a life. That is an important thing to remember: we can't always be involved in transnational sabotage or paramilitary media festivals. With that in mind, we strive to ensemble together, or better yet, “assemble” ourselves (as we also by “assembly” name the labor of workers just south of the border in this NAFTA time) in a festival of three days, but with effects that can last for as much as a year. And still to construct durable things amidst the entropy of an interzone is no easy task.

During the first Borderhack we tried to penetrate and understand the border with a very critical mindset, acknowledging the strange attractors that keep the people from both sides of the border together and at the same time apart. We tried to stay apart from the clichés of border activism. There is a reason why Mexicans gamble their lives in order to become American citizens. When people gamble their lives in the desert, river, freeway, etc., in order to “find a better future” in another country, it's because their situation has reached a limit.

Why are people leaving Mexico to go to the USA? If people could be happy staying where they are, with their current situation, why would they leave? There is a theory that these people leave home for the USA, “another place,” but it could also be that they're fleeing Mexico to find a place they can call home. Same thing, reverse perspective.

One thing is true. The border isn't as real as when you are next to it. The rusted metal borderwall goes all the way into the Pacific Ocean, the helicopters fly in the skies, the border patrols are everywhere. Next to the wall, there's no way you can deny or even forget that you are on the verge of a world. You can almost play back images of families running on Interstate 5 in order to catch up to their wonderful future... brown indigenous characters at U.S. Customs repeating “American citizen” like a scratched

record, d... students crossing the border every morning to attend school. The wall reminds you this is as far as you can get, one more step requires credentials, permits, and so on.

But once you pass the wall, you find a lot of bytes from the other side floating around, and they're constantly causing failures and fatal exemptions to the machine. Files get lost in the transaction; tension-causing riots in the actual hard drive. You find a Mexican California, and a Californified Mexico. The border is always hacking itself.

Don't be misled; hacking is not destroying. Hacking is done in order to get to know the system better. The system is always repaired by people who hack the system to understand it. Borderhack is a camp where the world of technology and the Internet - - tools of limit erasure --- meet with the world of physical borders and passport handicaps. Hacktivists, Internet artists, cyberculture devotees, border activists, electronic musicians and punk rockers can crash the border on Tijuana-San Diego if only for a few days, with java applets, port scans, radio, microwaves, ISDN, face-to-face communication, technology workshops, presentations, music events.

The idea to synthesize the camp is born out of the condition of dilettante border kids, years of crossing the border and doing a little window shopping, pretending that we could be part of the American Dream of wealth, happiness and freedom. We are confused by it and also we accept it. On one side, the malls are filled with happiness, and on the other --- the wrong side --- we are forever condemned to produce goods that we will never enjoy ourselves.

Our border is where we almost live in the U.S. We can smell the future coming from the freeways, from Silicon Valley, from Hollywood, yet we are trapped in a muddy hill with unpaved streets. We are the good neighbors of the U.S., always here, always smiling, ready to serve the next margarita. And ready to delete this border.

*Amor. Vida. Evolución. Siempre. Viva la revolución de los colores!*

Footnote: Borderhack at press time. In just two years, the event has grown up quite a bit, although its still small and home made, and true to its best ideals. In the daytime there are workshops, lectures, panels and so on. During the night there are concerts, films, and so forth. In 2001, we began the online exhibitions, one curated by Cristine Wang and the other by me. Some of the participants on the online exhibition include: Las Agencias, Antonio Alvarado, Mark Amerika, APSOLUTNO, Dan Arenzon, Marion Baruch, marco13bellonzi (Colectivo O Santo File), Justin Bennett, Zeljko Blace, Ángel F. Bueno, Marco Capelli, David Casacuberta, Nilo Casares, Patric Catani, Arcangel Constantini, Teresa Delgado & Jakob Kirchheim, Mark Dery, Verica Dimeska, Ricardo Dominguez, EC8OR, Electronic Disturbance Theatre, Raul Ferrera-Balanquet, Alex Galloway, Daniel García-Andujar, Quim Gil, Marina Grzinic, Aleksandar Gubas, Molly Hankwitz, Pedro Jiménez, JODI, Klubradio, Andreja Kuluncic, Rafael Lozano-Hemmer, Geert Lovink, Fernando Llanos, OG Mass T.lander, Pedro Meyer, Federica Michot, Paul Miller aka DJ Spooky, Angela Mitropoulos,

Ben Moretti, DJ Niño (Colectivo O Santo File), Diana Palaversich, Jose Luis Paredes Pacho, pavu.com, Antonio C Pinto, Oliver Ressler & Martin Krenn, Robin Rimbaud aka Scanner, Francesca Da Rimini, Douglas Rushkoff, Trebor Scholz, La Sexualidad de las Moscas, George Shirk (Wired News), Alberto Vazquez, Cristine Wang, Wofbot.org, and Yituey. You can see the borderhack Wweb at: <http://de-lete.tv/borderhack/attachment>

# Illegal Knowledge: Strategies for New-Media Activism

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*Bruce Simon*

*Note: This colloquy is an edited version of an e-mail exchange between Chris Carter, Ricardo Dominguez, Geert Lovink, and Bruce Simon that took place during winter 2000–2001. A short post-script from December 2001 is appended.*

**Bruce Simon:** When Geert Lovink originally proposed this project to Marc Bousquet, he conceived of it as “an exchange about strategies for media activism.” Our charge from Marc was to “address some of the opportunities that new media present for an ‘informatics of resistance.’” I wonder if we might take as our model Stuart Hall’s famous “New Ethnicities” essay from 1989, in which he sought to identify “moments” in Black British activist/representational strategies and what’s at stake in them. That is to say, as we discuss where we see net.activism heading or where we’d like to see it go, we can also address where it’s been and where it’s at. So who wants to start us off?

**Geert Lovink:** There are lots of questions about how the Net could be used best for campaigning. Should activists focus on spreading counterinformation into the mainstream or rather on founding their own alternative networks? Should efforts be aimed at spreading content or rather be focussed on confrontations at street level? Is the future in the Seattle model of Independent Media Centers (IMC), which is a wide collection of event-driven websites dictated by the agenda of Meetings of the Powers That Be? Or should net.activism concentrate on developing software, hijack sites, to keep exploring the backway alleys of the Net? How much do we have to worry about consolidation of freezones in the eye of the corporatization of the net and the rise of state control over new media?

We are here to discuss strategies, which, in my view, requires direction and an ability to make common decisions—and act upon them. Activism is different from a general public debate. It asks itself the question What Is to Be Done? If the answer is “everything,” not much will happen except for what is already happening. I think it’s

now time to speak about the dynamics of coalitions and alliances. The trick is to create “temporary unifying signifiers.” The question we are discussing here, as far as I interpret it, is what role the Net is playing in this and which hybrid media forms work in a specific social and cultural formation, and which don’t.

**Bruce Simon:** To Geert’s first question, I’d respond that there are several good reasons for activists to prioritize founding and sustaining alternative web-based networks over spreading counterinformation into the corporate media. First, it’s a bad idea to conceive of the ends of our activism as getting our issues onto the agenda of major “decision-makers” and “decision-making” organizations (lobbyists, legislators, think tanks, government subcommittees, transnational institutions, NGOs, etc.); in this view, the web simply becomes another medium for disseminating content, and use of it gets modeled after the mainstreamed uses of other media (print, radio, TV). We lose the opportunity to learn lessons from the strategies and defeats of those who, for instance, wanted radio and television to develop in radical democratic directions. Instead of thinking the web as a new and improved PR tool, we need to think about how to take advantage of its interactive and multi-media capabilities to change *who* gets counted as a “decision-maker” and *how* decisions get made. We ought to focus our efforts on developing those aspects of the web that allow for a different mode of campaigning than figuring out how to get something into the “spin cycle.” This leads to my second point: given that what happened to radio and television is happening with the web right now, the creation of alternative networks is even more important, for if we don’t create, sustain, and grow them, who will? Time-Warner? Disney? If we want it done right, we’re going to have to do it ourselves. There’s finally an efficiency argument for creating alternative networks for issue-or-event-oriented campaigning: corporate media won’t simply ignore alternative networks; they will seek to incorporate and appropriate that which is created and/or distributed by them—whether that be an event or a position paper. Spreading counterinformation into corporate media will be a happy accident of the creation of alternative networks, in other words—it doesn’t need to be a top or initial priority for net.activists.

This argument leads into my answer to Geert’s last question about the effects of “corporatization of the net and the rise of state control over new media.” Rather than worrying about these trends and forces, we need to figure out how to deal with the seemingly inevitable misrepresentations and imposition of standardized narratives that occur when any issue or event moves from alternative to corporate media. We can’t allow the “worry” that this will happen to paralyze us; we have to learn from other activists who also deal with this problem. In *The Working Class Majority*, Michael Zweig critiques the mainstream media’s tendency to report on strikes in ways that reinforce their readers’ and viewers’ identities as consumers rather than as workers; how different is this anti-union containment strategy from the representation of those protesting against corporatist globalization in Seattle or Washington as either loony idealists or dangerous disturbers of the peace? But consider the advantages of having alternative

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web-based networks—the way they allow for almost-instantaneous critiques of systematic bias and the dissemination of progressive and radical viewpoints—to having to rely only on print, radio, or television networks.

**Geert Lovink:** In fact, many of the IMCs are developing into longer-term alternative media institutions. On the other hand, the time frame of activism seems to be dictated by those we're all trying to counteract. Is the political agenda of the so-called anti-globalization movement constrained by "eventism," city-hopping from Washington to Prague, Melbourne and further? Is that a problem?

**Ricardo Dominguez:** "Eventism" as a strategy for now is fine. These sorts of global focus points allow the many threads and issues that surround neo-liberalism to gather, share, and strengthen the networks. They allow these global networks to re-flesh themselves in direct action and show that activism will be as transnational as capital. That was the basic trajectory of the "Encuentros" (Encounters) the Zapatistas have called for since 1994. Also, a number of activists see a direct genealogy from the Seattle actions to the Zapatistas' call for an "International Network of Struggle and Resistance" at the start of 1996. The Zapatistas have used this method of "eventism" to strengthen the concerns of the local autonomous communities of Chiapas to other global issues and they have done it in a very theatrical manner. At this very moment the Zapatistas are getting ready to march into Mexico City on March 11, 2001. It will be a two-week march that they are now calling the "ZapaTour." Very much part of their practice of "eventism."

**Bruce Simon:** I think there are many valid and effective ways to contribute to the "International Network of Struggle and Resistance" that the Zapatistas have called for; whether to focus more on content- or event-oriented on-line campaigning seems to me a matter of context and goals, and different groups with different priorities can combine their efforts. To take an example I know well, Marc Bousquet, Kent Puckett, Matt Gold, Christian Gregory, and I have worked to balance *Workplace: A Journal for Academic Labor* ([www.workplace-gsc.com](http://www.workplace-gsc.com)) between supporting organizing efforts by graduate students and adjuncts in the U.S. and Canada and putting the North American academic labor movement in a broader analytical frame. Two examples of the latter goal: Anthony O'Brien's "Global Workplace: An Activist Forum" featured interviews with activists in Australia, South Africa, and the United States who compared their struggles against the neo-liberal transformation of the academy (issue 1.2, December 1998), while Christian Gregory's "The WTO and After" featured a variety of analyses of the anti-globalization movement (issue 3.1, May 2000). This is to say that the web journal's function has been only to spread "content" or "counterinformation"; from the start, *Workplace* has been an organizing tool for graduate students, adjuncts, and tenure-track and tenured faculty already involved in or considering unionization, a site for debates over strategy and tactics within the academic labor movement and between it

other social movements, a lever for putting public pressure on professional associations and universities, and, since the May 2000 issue, a “portal” of sorts to other progressive and radical unionist web sites and e-journals. *Workplace* can take on these various roles only because of the existence and influence of a wave of organizing and activism by graduate students and faculty on individual colleges and universities, through municipal and regional organizing strategies, within academic unions like the American Federation of Teachers (AFT) and the National Education Association (NEA), within professional associations like the MLA or American Historical Association (AHA), and through organizations like the American Association of University Professors (AAUP), the Canadian Association of University Professors (CAUP), the Coalition of Graduate Employee Unions (CGEU), and the Coalition of Contingent Academic Labor (COCAL). *Workplace*, though, is one place where the analysis of the impact of casualization, managerialism, and corporatization on North American higher education systems can be linked to critiques of the impact of neo-liberalism on other institutions, communities, and peoples—including those done through events like the ZapaTour or the anti-globalization movement. This activity of theoretical or systemic “linking,” I believe, is a necessary supplement to the kinds of activities that shouldn’t be dismissed as mere “eventism.”

**Geert Lovink:** I would like to make a distinction here between content-based campaigning, lobbying, and PR work and the more technical hacktivism. The positions concerning “hacktivism” were more or less consolidated back in ’98. Back then, the model of the collective denial-of-service attacks (as promoted by the Electronic Disturbance Theatre) was fiercely criticised, from both hackers and activist sides. Yet, the very effective strategy of [www.McSpotlight.org](http://www.McSpotlight.org) which is focussed on research, outreach, and activist networking was never repeated on the same scale. Why not? Should we continue to make the distinction between good content and networking projects and “bad” criminal hackers? (No, but people still do.)

**Ricardo Dominguez:** Geert’s breakdown of net.activism into a binary of good activism ([www.McSpotlight.org](http://www.McSpotlight.org)), or digitally correct activism, vs. the bad hacktivism of the Electronic Disturbance Theater (EDT) strikes me as far too simple. EDT’s work was and is tactical theater; [McSpotlight.org](http://McSpotlight.org) was a long-term strategic action. So to compare one with the other disregards the context within which the Zapatista FloodNet (a virtual sit-in tool created by EDT members Brett Stalbaum and Carmin Karasic) was used, disregards that the actions were done to bring global focus on the situation in Chiapas, Mexico after the massacre in Acteal, and disregards that the tool was one small element within the larger long-term activism of the digital zapatistas movement in conjunction with the EZLN. The Zapatista movement as a whole has been one of the most important developments in international activism since they emerged out of the Lacandona in 1994. EDT’s actions just added one more channel for information distribution, the core of net.activism, via these theatrical-strikes. In fact, many net.communities had not even

heard or concerned themselves with the issues that the communities in Chiapas faced till we did these actions. The Zapatista FloodNet was a net.tactic tool that allowed a global network to bear witness to this atrocity and for them to become engaged via the net to something very real—these virtual actions structurally altered the electronic embodiment of the Mexican state and allowed networks to participate in the process. It also offered net.activists a new tactic for managing contemporary electronic nomadism without relinquishing the possibility of non-violent direct action on-line as a very real form of global political intervention. EDT's tools and actions were never meant to establish a long-term strategic design to counter the neo-liberal agenda. They are tools that can be used by any on-line or off-line community to disturb or slow down the high-speed virtualization so many face tactically, and not strategically.

**Chris Carter:** Sites like [www.McSpotlight.org](http://www.McSpotlight.org) generate a synergy between electronic activism and fully-embodied public confrontation. The interplay of multiple media makes palpable the conflicts on the streets and in the courthouses. McSpotlight's complex sensory experiences do not merely intensify readers' engagement with the web, but potentially awaken those readers to the realities of labor exploitation, misleading advertising, and animal cruelty. Additionally, and perhaps more importantly, the audio-visual force of the site awakens readers to brave acts of resistance.

Like McSpotlight, the Florida Research Ensemble's "Imaging Florida" project and the California Part-time Faculty Association website interweave varied media in virtual space in order to show that the work of resistance extends beyond the virtual. While "Imaging Florida" illustrates the field work of artists/theorists/activists attempting to counteract the commercialism of Florida tourism, [cpfa.org](http://cpfa.org) depicts the legislative struggles of contingent instructors attempting to expose and undermine the commercialism of higher education. In the case of CPFA, web-mediated resistance seems particularly crucial in order to slow the proliferation of virtual distance education. The bogus efficiency and cost-effectiveness of virtual education threatens to exacerbate the already excessive reliance of academic institutions on a contingent workforce. Instrumentalist technology threatens to relegate more and more teachers to part-time information deliverers and anonymous graders. [cpfa.org](http://cpfa.org), while fighting for the reduced dependence of California Community Colleges on contingent workers, deploys web technology against the forces of capital—even as that same technology facilitates capitalist exchange more effectively than any in history. CPFA members emphasize the public nature of their struggle by including audio-visual representations of their testimonies in state legislative hearings. The synergy of electronic activism and f2f confrontation energizes the organization, which has matured along with its website. Will CPFA's ostensibly counterhegemonic practices within the capital-intensive network slow the virtualization and increased commodification of education? Might the alternative networks that Geert imagines help sustain CPFA's activist techniques? Or does the creation of alternative networks for resistance only further assure the increased commercialization and governmentality of the Internet?

**Ricardo Dominguez:** The CPFA must look at the number of hybrid tactical and strategic net.activist and street.activist maps that have emerged and then deploy those that best fit the issues that they face. As in every activist case, the importance of the context and what information will reach and move the communities involved can only come from CPFA—who understand the issues intimately. In the best-case scenario, an element of invention will also emerge that can become the strange attractor for the issues, which will push the concerned community to another level of social response from those not directly involved—even though they should be. Does the “creation of alternative networks for resistance only further assure the increased commercialization and governmentality of the Internet?” The forces of “commercialization and governmentality” will increase no matter what we do. No matter if we do everything possible to stop them or do nothing—they will continue the rapid “diversification of integration.” The Zapatistas chose to do something, even if it meant that they would be surrounded by an endless cycle of low-intensity warfare. I don’t think we have much choice either. Does this mean that we can’t change the trajectory of neo-liberalism? I tend to fall on the side that believes that it maybe is possible—but, as Geert said at the start, activists can’t “do it all.” However, we can take what tools we have at hand and what network situations we find ourselves in—and do what we can.

My question is: can we “discuss strategies, which, in my view, requires direction and an ability to make common decisions—and act upon them” without falling into constant negation and binaries about good vs. bad net.activism? Would it not be more active to find what was or is most useful in each endeavor of net.activism and share that? But, perhaps all we can share is our negation and nothing else.

**Bruce Simon:** I think we can offer something other than negation. For one thing, we can attempt to clarify what’s at stake in various net.activist strategies and priorities—and perhaps model what that kind of collaborative yet contestatory process might look like (or at least provide an instructive example of how or how not to do it). At the very least, we can try to unsettle some pretty established binaries that seem to be already in place.

I’m wondering how our discussion thus far relates to what already seem like “classic” web issues: access, identity, “virtual communities,” the web as instantiating a “public sphere” or “free market of ideas” (either the realization of the bourgeois public sphere or some sort of necessarily democratic space), intellectual property. Hasn’t Napster created a virtual community/public sphere of sorts? is that web activism?

**Geert Lovink:** We could say that activists are no different from other web users. They all build sites, set up lists, have their own online events, just like the motorcycle gangs, video game fanatics and those interested in exchanging Indian cooking recipes. That may be true. They all form virtual communities and create both group and individual identities. Still, I think it should be the task of activists to go beyond the user level and question the workings of net subjectivity. I would hope that activists are more aware of the underlying power structures of the information economy. Armored with this criti-

cal knowledge, net.activists can go beyond the status of merely using applications. By questioning the way existing network architectures work, new strategies come into existence, both on the aesthetic level of the user interface and software. That's why there is such a high awareness of the open source issue in activist circles. At least, that's the ideal case. Ideally there is an exchange, and sometimes even collaboration between net.activists, artists and programmers. That's the difference to Napster. In the Napster model the users are just consumers (of a free service, in this case). The user is condemned to content. I think net.activism should not reduce itself to (good) arguments.

**Chris Carter:** Geert's move beyond argumentation into practical intervention leads "beyond the good" into Zizekian territory. In *The Ticklish Subject*, Slavoj Zizek sees "something 'terroristic' in every authentic act, in its gesture of thoroughly redefining the 'rules of the game,' inclusive of the very basic self-identity of the perpetrator." What new technologies might mobilize an ethically-charged terror? Ricardo spoke in an interview last year about the increasing use of countersurveillance devices such as webcams to expose and challenge officially-sanctioned forms of technological observation. Such webcams, in helping to obtain and disseminate dangerous information regarding corporate and governmental practices, seems to impose a greater terror than viruses or tools of information-destruction. Ricardo has already clarified the importance of using technologies that are appropriate to specific conflicts and particular locations. Effective activism (good terrorism?) depends on collective awareness of the range, stakes, and consequences of a locally-situated struggle. Might webcams, however, allow for the disruption of authorized panoptic practices in a variety of contexts? If so, what risks must activists bear in returning the tyrant's gaze?

**Ricardo Dominguez:** The development of counter-surveillance (watching Big Brother watch us) devices as a net.activist.tactic, I think could be effective—it could be "good terrorism." The risks would be much the same as any direct action work that creates a disturbance. But, it would be our hope that it would also be a gesture that would create a traumatic situation for the Command and Control networks. Creating a social trauma in the power nexus is the point of "good terrorism"—in much the same manner that FloodNet created a traumatic event among the digitally correct communities, who had a visceral response to this type of simulated DDoS (Distributed Denial-of-Service). EDT's counter-surveillance project is entitled "Anchors for Witnessing: Post-media for Off-grid Communities." The specific purpose of these wireless anchors will be to witness and send out real-time Netcast video of human rights abuses by paramilitary forces, the military and other governmental forces that many remote communities, like Chiapas, Mexico, face on a daily basis. These wireless anchors would use the covert technology developed by corporate and military communities in the First World to centralize Command and Control of indigenous lands. The Electronic Disturbance Theater's aim is to use this covert technology and reverse the gaze of power towards its own structural disregard of human rights with the speed of autonomous wireless networks. Such anchors for witnessing would allow remote communities under daily low-

intensity warfare the ability to witness, document, and disseminate to the networked world the abuses of power instantly—without having to have FirstWorld levels of high-band interconnectivity.

**Geert Lovink:** Ricardo, you know very well that there is also another critique of denial of service attacks, coming from hackers and system administrators. They have been explaining over and over again how ineffective DDoS attacks are. In many cases attempts to bring down an *enemy* server get lost in the Net, somewhere, near your own ISP or further down the line. The Electronic Disturbance Theatre has been criticized for its simulation of digital resistance. I agree with you that NGOs have been really scared by these new tactics. But let's not get distracted by their digital correctness. The question here should be not one of rhetoric or simulation but what models are effective in what situation, taking the specific local and cultural circumstances of the struggles and actions into account.

**Ricardo Dominguez:** I agree that we should not be distracted by the “question of technical effectiveness” or “digital correctness” in terms of what EDT has done. The Zapatista FloodNet was not attempting to be “technically effective”; effectiveness and efficiency, for EDT, are below the trajectory of symbolic efficacy. Our aim was not to “bring down the enemy,” our aim was to create a simulation of the “DDoS” event that would be “effective” in side-loading information beyond the local and offering a point of focus for the communities involved. It was an “event” that created a sense of the unbearable weight of beings in the middle of the super-highway for a limited amount of time. It created a state of disturbance—not of destruction. But, as I stated earlier, the “context of an action” is of the highest importance. A net.tactic should always take into consideration the strategic value that it will be framed by and what the “event” of the action will bring into focus.

What I was trying to add to the development of this dialogue around the “Anchors for Witnessing” project is that it does not have to work to have an effect on the nature of the virtual panopticon. That is what the Zapatistas have taught us about InfoWar, or better, InfoPeace net.tactics: one can create a low-fi simulation that can have an ‘effect’ on the .mils and .govs. After EDT started speaking about the possibility of “Anchors” happening, perhaps already having happened, in mass media filters during 1999 (like *Time* magazine, InfoWar journals, and net.culture journals), EDT started to receive requests for more information about this project from Mexican newspapers. This added to the belief that the Zapatista Force Field now had a new layer of real-time networked counter-surveillance up and running. By the end of 2000, Zapatista communities began to overrun Mexican military bases and the military did not stop them or fire on them. One can only think that the fear that the “whole world is watching” was in the minds of Fox and the PAN in this instance and created a space that allowed this “event” to occur.

As the Zapatistas recently stated during the “Zapatour”:

We came only to ask...

When the brother sees us, is he looking at us?  
When the brother does not see us, does he forget us?  
The one who loathes us, is it because he does not see us?  
Because he sees us seeing him? Because he does not see us seeing him?  
The one who sees us as bad, is he not looking at us?  
When we look, are we only looking at them looking at us?  
Can one be looked at who is only looked at?  
Who is the one who can stop seeing us looking and look at us?  
We came only to ask...

Another way to map these low-fi net.tactics of hacktivism can be done in three ways: physical, syntactical, and semantic. The physical infrastructure of the technosphere is unstable at many points and can be physically overwhelmed by any number of DDoS by a very real attack: MSN servers were taken down by just such an action at the end of January 2001 for several days. So one can reverse the challenge of Command and Control centers by just shutting them down completely, or taking control of the root commands of a system, or re-adjusting the interface with a statement. As you can see this type physical net.tactics falls into the definition of what we now think of as a traditional hacking—or better said, “cracking” of the system.

On the other hand, one can re-direct the logic of the systems by tweaking the syntactical structure of code and reversing the logic of the system, in order to make it function in manner it was never made to do. EDT's Zapatista FloodNet used the logic of the network to upload 404 files (or Files Not Found) in order to upload political questions into the Mexican government servers during our 1998 electronic actions. Questions, like, is “justice.html” found on this server? The Mexican government server would respond: “<justice> is not found on this server.” Here the logic of the system was used to create a counter critique within the structure of the government's servers, which also, pointed to the real political conditions of Chiapas, Mexico.

And last, but not least, is the semantic level of electronic resistance. It is at the semantic level that low-fi hacktivism has shown itself to be most useful. Semantic resistance (InfoWar) is what the Zapatistas have used since Jan 1, 1994. The Zapatistas' networks have displaced the structure of NAFTA trajectories and its neo-liberal agendas with poetic interventions, which hijack the logic of guerrilla war, and transgress the logic of InfoWar. Semantic, here, refers to using words as war to create a bottom-up social netwar on a global level, by using the simple tool of e-mail. E-mail should still be considered as the primary tool of hacktivism. For EDT the performance has been to slip between the syntactical and semantic trajectories, and to simulate the physical “event.” Each one of these types of hacktivism can become a useful net.tactic. But, no political organization should hang their hat on them to accomplish long-term strategic goals.

**Bruce Simon:** We don't need to go with this next question yet if people want to continue discussing the risks and rewards of counter-surveillance or other strategies that, as Geert put it earlier, “question the workings of net subjectivity” and “question the way

existing network architectures work,” but Ricardo’s closing comment about different political organizations’ long-term strategic goals made me wonder about a larger issue—the heavy influence of libertarianism and anarchism within net.activist circles. While radical strands of these political philosophies critique state power and the workings of multinational and transnational corporations, most of them haven’t shown much interest in the history of colonialism and imperialism or much affinity with marxist or postcolonialist thinking. Is this a problem? To use literature as a shorthand, does it matter that Neal Stephenson’s *Snow Crash* rather than Leslie Marmon Silko’s *Almanac of the Dead* appears on most net.activists’ reading lists for apocalyptic visions of possible capitalist futures and re-mappings of the neo-liberalizing present?

**Geert Lovink:** Libertarianism is philosophy at work. It is the dominating undercurrent at the dawn of the 21<sup>st</sup> century. I am always surprised to hear how mainstream thinkers are playing down its influence. Rather than writing the badly-needed *Critique of Libertarian Reason*, public intellectuals such as Zizek focus on dead horses such as Lenin, post-colonialism, cultural studies, and other “third way” sciences. And if they are really bored the professional thinkers will talk about the “chances and risks of globalization.” Libertarianism in the *Wired* style has hardly been researched, which could be an indication that it is unconscious consensus, not contested but rather denied. The book essay of Pauline Borsook, *Cyberselfish*, is a good attempt, even though it remains anecdotal, a bit light theory-wise, but it contains rich material which could be analyzed. So do the Stephenson novels, computer games, or more contemporary magazines such as *Fast Company*, *Red Herring* and *Business 2.0*. Libertarianism connects the left and right wing of the net, the entrepreneurial forces and the net activists. Corporate elements and state officials don’t like it. Their common sense is Third Way with the aim to curb the new forms of freedom of speech and commercial opportunities.

### **Postscript: December 2001**

**Bruce Simon:** After September 11, 2001, our earlier conversation reads as eerily prophetic, proleptically speaking. Does anyone want to address the question of where we stand today?

**Geert Lovink:** Concerning net activist strategies after the terror attacks of September 11, talking so briefly after all what happened I see a temporary voluntary restraint amongst activists to criticize US government policies. For good reasons no one wants to be associated with bin Laden and similar terrorist groups or even Islamic fundamentalists. I think that’s a wise tactic. One only has to refer to the fatal solidarity of the PLO and much of the Palestinians during the 1990/91 Gulf War period with Saddam Hussein’s regime and the dramatic consequences these gestures had. This does not imply a *carte blanche* for Bush. The currently growing peace movement has a broad agenda and is expressing concerns shared by great deal of people worldwide warning for US-Hawks within the ranks of the GW Bush administration who are

pushing for short term retaliations. Alright. This is all day-to-day politics. What we can say in retrospect about net activism before 911 is its frivolity and innocence, connected to the fairly peaceful 'belle epoque' of the Clinton era. I am not so sure how experiments which are testing the (legal) borders of electronic civil disobedience will look like in the near future. Much of the attention will shift to the defense of civil liberties. Information warfare is not something much of the activists that I know would like to be involved in under these circumstances. I suppose it much better to actively defend the open and decentralized character of the Internet and focus on real issues such a global warming, corporate power, working condition in the garment industry (for instance) and union rights in general. The global economic recession will see the rise of a lot of interesting movements and policies, very different from the slightly naive phase of (anti) globalization.

# Resisting the Interview: An Anti-Interview with Mark Amerika about Internet Art

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*Katherine V. Wills*

Art Disturbs, Science Reassures

—Georges Braque

Internet artist Mark Amerika's oeuvre distinguishes between an aesthetic of Internet art that marks class and an aesthetic of Internet art that demands political participation. To force political interaction into the artistic experience, Amerika constructs hypertextual works that require the audience to participate by making choices: to click or not to click into the virtual. Amerika's art embodies the advice of the late (h)activist Kathy Acker: "The only reaction against an unbearable society is equally unbearable nonsense." To dramatize art's servitude to bourgeois values, Amerika morphs himself into a commodity to be bought and sold. His entrepreneurial fervor pervades his art *ad nauseum* as he anticipates that the most astute members of his audience will resist the surfeit and begin to question their subjectivity as consumers of art: this is his purpose. Mark Amerika resists art enervated by its status as a commodity for the highest bidder. While Warhol iterated motifs of soup cans and starlets, Amerika uses the New Media palette challenge to pirate and replicate Internet Art. He challenges audiences to situate art as an interactive, ongoing, political process, not only as an aesthetic commodity.

Internet art's immateriality and simultaneity challenge longstanding notions of art as a static marketable commodity in the service of the hegemony. How *thingish* museum art was before the virtual: mummies, Louis XIV chairs, structural steel sculptures, and dour portraits. Amerika counters *thingification* with an art of process and participation. Artists and critics have just begun to formulate digital aesthetics. The classical Greeks situated aesthetics in the mathematical certainty of the Golden Mean; di Vinci situated aesthetics in the visceral by dissecting cadavers to reveal the underlying sanguine beauty.

In order for emerging Internet art and the aesthetics of informatics to move beyond pandering to the hegemony, artists through their work and audiences through their political participation need to counter the culture industry as described by Adorno. The culture industry openly promotes false needs and commodity fetishism. Needs are created in people that can rarely be satisfied. The need for fetishes increases as the price of those objects grows. Need satisfaction comes to those who have more purchasing power. To date, most Internet art can be accessed freely by audiences by computer.

At the intersection of informatics and aesthetics, Amerika seeks to resuscitate cultural production and distribution in at least three ways:

- recast cultural production and distribution of art as an interactive process that utilizes the mutability of hypertext instead of the fixity of consumer exchange. In doing so, Amerika reconstructs social subjectivity through hypermediation of the text;
- counter the capital-driven concept of intellectual or artistic property and the authoritative text by reviving notions of textual or digital remix and theft;
- revive subversion in art. Amerika, through his electronic network Alt-X and the Avant Pop movement provides an aesthetic of informatics—interactive and political—for audiences and artists who have succumbed to consumerism and wish to escape.

Vladislava Gordic, a critic of Amerika's work, notes that Amerika's Avant-Pop movement combines Pop Art's focus on consumer goods and mass media with the avant-garde's interest in subversion. Amerika foregrounds the subversive by reformulating himself into an entrepreneurial Internet art brand name—Amerika. He combines recent expressive forums such as hypertext, e-books, palm pilots, print texts, and books-on-demand with extant expressive forms such as the word, icon, event, and the party.

The danger remains, however, that the New Media, like the Old Media, will be in the service of the same masters. Note his recognition in the mainstream: recipient of the Whitney Biennial American Art award for GRAMMATRON; cited as one of *Time* Magazine's "100 Innovators;" Creative Writing Fellow at Brown University; faculty at University of Colorado at Boulder, and much more.

The following email interview with Amerika reads like a cyborgian interview slam. If the interview is challenging, it was meant to be so because this print interview resists conventions, commodification, and authorship. Amerika's art is exclusive in that it solicits a critical audience that questions artistic expression as measured by cash price. Amerika's art is democratic in that it is accessible by click-thru technology worldwide. The interview might appear like an imitative fallacy. In other words, in attempting to delineate aesthetics of fragmented information, fragmentation is produced. Yet, the interview holds together with snippets of linearity, code, idiosyncratic vernacular, enjambment, the human voice, and what seems to be non-sequiturs—if viewed from

the perspective of print conventions. The interview does not explain who is the interviewer and who is the interviewee: readers confront uncertain attribution. The medium is the message. Form follows function. The play is the thing. Amerika says, "I am intrigued with the idea of exploding the standard model for narrative construction." New Media demands its own aesthetics of Informatics situated in the political to disturb complacency about artistic production, distribution, participation and purpose.

ready...aim...[texting 1, 2, 3... texting 1, 2, 3...]  
 re:sampled  
 texting the machine  
 authenticating the silence  
 the subject of communication

"we are all cyborgs"

<<<...read yourself into me and then translate it back into an on-the-fly decharacterization of what you want to become>>>

<<<before becoming>>>

<<< "The self is a grammatical fiction" or: the writer as pseudo-autobiographical work-in-progress.>>>

<<<Every time I hear the word culture/ I reach for my checkbook.>>>

>>>YYYYYYYYYYYY>>>

>>>In the 1999 Steve Dietz Interview you say "Works that challenge the corporate aesthetic's "illusion of control" can cause the user to reflect on the nature of the medium he or she is using and perhaps point the way to a more proactive model of cultural production, instead of passive consumption."

<<<How does altx serve as an antidote to informationalization?>>>

<<<"by defamiliarizing what commerce has made common">>>

<<<How have you escaped the managed and regulated space of governmentality with its seminal/ovo/blood links to ARPANET?>>>

<<<"we have not escaped. we are trapped in the prison-house of email.">>>

<<<Have you hybridized altx into offline work?>>>

<<<“all the time...altx is a social network more than anything else...an always reconfigured/reconfiguring social network with major nodes in Boulder, New York, L.A., Chicago, San Fran, Rome, Berlin, London, Sydney, etc. we throw the best parties...”>>>

reconfiguring the author

I link therefore I am

machine orgasms

amerikan autopoeisis

the ends of man

<<<What changed when you changed your medium from the print of *Sexual Blood and The Kafka Chronicles* to GRAMMATRON? How did your authority change? Did it?>>>

<<<“I became liberated. First, I was free to escape the posture of copyright maximalism that attaches itself onto intellectual property laws. I was free to leave the distribution bottlenecks of the book world. I was free to say sayonara to the politically correct book review mechanism and its pseudo-liberal pretensions. Of course, for some cultural critics, this is the worst thing that could happen—a total disaster. All of a sudden, you don’t have the mainstream publishing world or the conservative literary academic world pulling on the reins, trying to keep you in what they would like the culture-at-large to perceive as an irrelevant avant-garde ghetto.”>>>

<<<“This all changes in a networked environment like the WWW. What you do is you put your work online and let the people decide if they want to engage with it or not. I did that with GRAMMATRON and in its short 3 1/2 year history, it has attracted over a million visitors. Can you imagine a million-plus people taking your book off the Border’s bookshelf? I released GRAMMATRON as a “public domain narrative environment”—what we might now call an “on-demand ebook” or “cluster of interconnected copyleft documents” that were always already published and—this is essential—exhibited in the electrosphere. GRAMMATRON also enabled me to start challenging what we normally think of as the ‘author function.’”>>>

<<<“Perhaps we should look at writing as a kind of network performance that lives in



<<<\*We're like machines. Only by pppppplaying out these phantasies that sharpen the faculties in our imaginations can we even begin to breakdown the structural unity of the State-machine that controls us. The machine is machining.\*>>>

<<<"machining is \_\_\_\_ . the social-cyborg texting other social-cyborgs in an endless feedback loop...an edified conversation...">>>

<<<It has not been definitively proved that the language of words is the best possible language. And it seems that on the stage, which is above all a space to fill and a place where something happens, the language of words may have to give way before a language of signs whose objective aspect is the one that has the most immediate impact on us. Considered in this light, the objective work of the *mise en scene* assumes a kind of intellectual dignity from the effacement of words behind gestures and from the fact that the esthetic, plastic part of theater drops its role of decorative intermediary in order to become, in the proper sense of the word, a directly communicative language.>>>

<<<"there you go texting me again. what sort of social-cyborg do you think I am? a reconfigured subject that not only undermines the concept of human subjectivity but threatens and promises to transform the very subject matter of the study of human communication?">>>

<<<YYYyes yes yes yes yes yes yes yesYYY>>>

<<<what sorts of questions does my texting raise for you?>>>

<<<"are you a passive reader or do you prefer to interact with the text? how is texting like making love? how is making love like making history—or making history up? are you culture-jamming the Unknown? does mere textuality make you wet or must there be a synchronized subjectivity informing the reconfigured author who texts you? is this even possible or is authorship vanishing in a blur of manipulated and manipulating data? if so, then who is doing the manipulating? who is the Other? is this feeling of "being manipulated" mutual? how does this effect our understanding of use-value and how can we even begin to take these arbitrary traces that find their way into this communicative space at their \*interface\* value? or is the interface disappearing too?">>>

<<<YYYI eat POWER. POWER Eats me. Power eating itsef...YYY>>>

I did not like that last e-mail

<<<being spammed>>>

<<<ergotic mantras>>>

<<<post-human waste>>>

<<<click-thru consumerism>>>

<<<self-questioning: “what is literature’s exit strategy?”>>>

<<<or: “who am I this time?”>>>

<<<“To each being, several other lives were due.”>>>

ready...aim...[clicking 1, 2, 3... clicking 1, 2, 3...]

<<<So tell me, Amerika, who has authored YOU? Who do you read while fingering authority?>>>

<<<“right now, I am being rewritten by many, most notably Celine, Stein, Acker, Beckett, Flusser, and an emerging avant-pop writer named Lidia Yuknavitch—check out her new novel ‘Liberty’s Excess.’ who do you read?”>>>

<<<I read the electronic conversations. I read bodies, Z, The Nation, In These Times. I read fiction from Sun & Moon, Dalkey Archive, and FC2/BIB presses. Like Curtis White I want to include those from alternative journals who leftist intellectuals seem to be exclude from their critical studies. I read Dick Grossman, Cris Mazza.>>>

<<<“oh, I see: a collectivist. me too (I think). where were we?”>>>

<<<The first time I saw you you were at Computers and Writing 2000 Conference in Fort Worth, Texas. You and the other speakers were textulating about copyleft, open code, Unix, the subversion of leaving text, flooding text, dropping text all over the place to subvert, well, I guess the old print authority, the dominant hegemony stuff, the old in-out. What DO you do as a copyleftist? When does it happen? How does copylefting operate on a significant cultural level and not just a witty semiotic or discursive jerking-off?>>>

O

:—- © \*

O

["copy machine," R. Mutt]

<<<Who is MA? If we were to clone you, what experiences must your clone have to be a writer/cyborg/editor/professor/artist/hactivist? Is there anyway we can understand your politics thorough your personal?>>>

THE LAST THING HE WRITES IS THIS:

HE WOULD BECOME A TERRORIST: HE WOULD FULFILL HIS OWN DESIRES AND START RANDOMLY ASSERTING HIS CREATIVE SELF WHEREVER HE FELT LIKE IT: HE WOULD BECOME AN ARTIST CYBORG EDITOR WRITER PROFESSOR HACTIVIST: THE ALL-IN-ONE OCCUPATION CURRENTLY UNDER SIEGE AS BEING THE MOST CRIMINAL IN ACTIVITY: HE WOULD TRANSPORT AN UNHINGED PRIMITIVE FLOW INTO THE UNDOMESTICATED WILDNESS OF HIS BODY SO AS TO DELIVER THE MOST FRENZIED STATE OF TRANSGRESSION EVER CREATED:

BUT: IN ORDER TO SET THIS RADICAL AGENDA IN MOTION: THE FIRST THING HE WOULD HAVE TO DO: WOULD BE: TO BECOME:

WOMAN

<<<That's the opening passage from your second novel, *Sexual Blood*. As a feminist, the rape scene of Danielle toward the middle of SB reminded me of a suede 60s/70s sex orgy. Mario Puzo on steroids, misogynist Kerouac rehash. All this "undress," "touch yourself," "spread your legs" and she obeys—agrees. Even then you were deconstructing notions of power and authority through the power metaphors of sexual politics.>>>

<<<"Yes, a close reading of this scene in SB will reveal, first of all, that this scene was for the most part written by a woman, a woman who has gone on record saying that she wrote these words to try and seduce a man she desperately loved (she succeeded). But even more than that, structurally, within the narrative of SB, this same exact scene repeats itself, almost word for word, 20 pages later when Mal is being seduced by the hip, young, African-American "feminist-goddess" who has changed her name to Zulu. Same words, different context—or maybe not so different depending on your reading. Also, don't forget the final passage of the book where Mal encounters the virtual

Madonna who, as telerobotically controlled machine, starts ripping pieces of her body off in acts random violence against what can only be the “self,” and then, as if unaware, begins forcing these body parts into all of Mal’s open orifices. Who’s controlling the virtual Madonna and why is she being so—emotional? These power metaphors you refer to are being refracted all throughout the story’s discourse.”>>>

<<<I see cadres of hactivistas organizing under a blinking banner of MA! MA! How do you teach your compadres resistance to tired authorship? How do you counter web authority? What is the music of resistance? Even a cyber-movement needs a beat, maybe.>>>

<<<“Oh yeah, definitely. Right now I’m continuing my recent investigations into the interrelationships between DJ remixing and cyborg texting. There was some of it in GRAMMATRON, but my second Internet art project, PHON:E:ME, which was commissioned by the Walker Art Center and nominated for a Webby Award in the Art category, is all about taking writing into remixable sound space. With PHON:E:ME, I started developing relationships with artists from various backgrounds and disciplines and I continued exploring the potential of reconfiguring the writing practice into something else altogether different, an expanded concept of writing, and in so doing envisioned an mp3 concept album about concept art, where the author function becomes something more in tune with network conduction. The Author as Network Conductor has many implications and possibilities, which I won’t get into here now, but the change is significant because it means that writers must make (h)activist cultural production a major part of their practice. I think this gets overlooked by too many intellectuals who are looking for the optimum comfort-zone for their theoretical musings and, needless to say, creates discomfort for many traditional writers who are bound by the book, intellectual property rights, and the big mainstream publishers and their publicity machines.”>>>

<<<“The first step in problematizing this notion of an “authoritative voice” [i.e. composing a counter or contraventionist art work that would challenge authorial control] was to digitally record my voice saying all of the phonemes in the English language. These digital recordings then became source-material for DJs to experiment with in their unique studio environments, taking what was supposedly the voice of the author, his utterances, the basic sound units that form sensible language, and manipulate them for their own (DJ) uses. I’m reminded of what my friend the late Kathy Acker said when we were doing a radio gig together and the M.C. asked her to talk about her voice. ‘What voice?’ she asked, incredulously. ‘I have no voice: I just steal shit.’”>>>

<<<“In addition to these sound manipulations, there was the creation of the hyper:liner:notes which accompanied and soon became a central feature of PHON:E:ME. The textual patterns that emerged and became the hyper:liner:notes

were also heavily manipulated. Each text chunk was some form of manipulated writing that came from pre-existing sources. The \*way\* each source gets manipulated is what keeps the narrative—the rhetorical flow—constant and somewhat interconnected, no matter what order they come up in. You can see them as hypermediated text chunks that then become randomized within a Shockwave interface. In fact, we tried to limit the so-called ‘hypertextual’ element as much as we could, reconceptualizing online narrative space as an anti-link (and thus anti-consumer) environment. We became more interested in what we started calling ‘openings,’ ‘wandings,’ ‘conducting,’ etc. How to make narrative something more akin to digital rhetoric—that was the experiment—and at times it was music to my ears. Other times it just came out noise.”>>>

<<<“My new project [it has multiple namings and renamings] will be a live network performance featuring streaming audio, live vocals and sound-manipulations by various DJs and myself. I’m interested in the way writing, sound, music and noise all work together in network-connected social environments. The world premiere is to take place in Switzerland (and simultaneously on the web) in April. Some might even call this kind of networked sound-writing performance a real-time publication...”>>>

<<<Nicky Hager’s article on Internet surveillance (Telepolis <http://www.heise.de/tp>) reviews New Zealand’s attempts to “hack covertly into individuals’ computers [thus]forcing people to hand over computer passwords and encryption keys so that e-mail communications and computer files can be read.” These interception methods could dam up the liquid architecture in the electrosphere.>>>

<<<yes, it’s amazing what governments will try to do in an attempt to dam up our workflow. Our utopian pla(y)giarism. we’re fighting our own battles here in the USA too. I just filed my fourth or fifth affidavit in the last two years against yet another conservative state Governor trying to limit free speech in cyberspace. Fortunately, my lawyers at the ACLU and I have yet to lose a case nor have we had to appeal it to the U.S. Supreme Court. At least not yet, but who knows what’s possible nowadays with the legislatures and executives trying to bully their way around the laws of the land.”>>>

(archi)textuality

a NEW and IMPROVED

0 0

}

[lingua mortis]

<<<Revisit your utopian days. How would you (would you?) qualify that utopianism?>>>

<<<“actually, I’m living my utopian days. my you-topian days are happening now...”>>>

## HARD CODE

elaborate me

openings

(h)activist

you-topia

<<<“But she was different like all single American women travelling are different. She had an open-endedness that came as a result of her wanting to escape. Everyone here was escaping authority. Mal knew this and wanted to be the beacon of anti-authoritarianism.” That’s also from *Sexual Blood*. You made the intuitive leap from page sex to cybersex and informationalized the body in *GRAMATRON*. Where can you take the post-novel-network-narrative while still cutting the edge of authority?>>>

<<<“I think it’s going to have to be live performance in globally-connected social networks. A kind of site-specific environmentalism that creates momentary utopias for those who want to participate in this kind of experiential reality. It need not happen on a mass scale. Most people I know are quite happy with their houses, SUVs, kids, and 24-hour TV-sedatives. But there are alternatives and there now exists a distributed community of social-cyborgs who are experimenting with their life-design in ways too cunning for elaboration here. The key thing is to begin using the emerging forms of digital rhetoric to augment one’s experiential reality. This kind of (h)activist practice would be a tonic to the vaporware logic of Virtual Reality. I’m reminded of what Allen Ginsberg asked me, off the top of his head, while we were discussing so-called Virtual Reality—he said, ‘yeah, but can it make you come?’ Good one, Allen.”

<<<You must have read Artaud. I watched a play about Artaud where he is sitting on a toilet and dying of rectal cancer. Artaud, the actor playing Artaud, covered with stage blood, jumped into the audience and began to drag horrified spectators onto the stage. What do you find most absurd about your work and the work of asking questions?>>>

<<< “I told you; no works, no language, no words, no mind, nothing. Nothing, except fine Nerve-Scales. A sort of impenetrable stop in the midst of everything in our minds.”>>>

---

<<<And?>>>

<<<“The truth is, the explosion of the World Wide Web into the mainstream culture has radically altered the way we give and receive texts. Writers can reconstitute social subjectivities.”>>>

<<<And?>>>

<<<“Hyperrhetorical gestures. How to be patient in a world that’s moving so fast you always feel left behind.” >>>

<<<??? >>>

<<<~~~>>>

<<<You are a writer native to the medium. What exactly is this new communication spawned by the WWW? I still see many of the issues of authority as in print technologies. And someone can always pull the plug or bug the cyberline. >>>

<<<“I guess it was Burroughs who said a paranoid person was someone who has all the facts at her disposal. Really, though, the bug is up our ass. The question is: who’s listening?”>>>

<<<This is not how I expected this to go.>>>

<<<Are expectations a form of authority—an anti-interview?>>>

<<<Has the medium taken over the message?>>>

<<<DEFANGED\_Meta meta meta\*\*\*\*&\*\*\*.>>>



section 2

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# **TECHNOCAPITALISM AND THE POLITICS OF INFORMATION**



## ***Section 2: Technocapitalism and the Politics of Information***

### **Introduction**

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*Marc Bousquet*

Perhaps the most persistent fantasy of Net lore is that cyberspace belongs to an entirely different economic universe – so that technology stocks, for instance, could be hoped to gain value in perpetuity (and do so exclusively from speculative activity), or that technology work is inherently artisanal and can never be industrialized like auto manufacture, teaching, or food preparation. Digital capitalism, it is fantasized, is really some other capitalism entirely, one without exploitation (“even secretaries get rich with IPOs!”), one to which everyone will “soon” have access (the half of the planet who has never made a telephone call will be glad to hear this, if we can find a way to get in touch with them). John Monberg’s essay describing the failure of industrial capitalism to deliver on its utopian promise, materializing instead the sort of blight characterized by Chicago’s Calumet region, asks us to imagine how the social relations of information capitalism will be materialized.

One of the persistent symptoms of digital-capitalist fantasy life is the curious but widespread misreading of Donna Haraway’s 1985 “Cyborg Manifesto” as a celebration of bourgeois fantasies of technoculture. Explicitly socialist-feminist in its commitments, the text of the Manifesto instead offers one of the most compelling portraits of technocapitalism as a global class war from above, the “informatics of domination” relentlessly engineering new social relations of exploitation with the new utopia-for-capital sustained by information technologies. It particularly emphasizes the accelerated domination of women in the global “integrated circuit” of production, consumption, and exchange in the social relations sustained by new-media technologies: the worldwide feminization of super-exploited wage labor in homework, flex work, sweatshops, domestic work, and migrant work; accompanied by the wholesale restructuring of health, education, welfare, worker’s rights and politics, so that the “considerable growth of membership in privileged occupational categories for many white women and people of color” is

accompanied by “a massive intensification of insecurity and cultural impoverishment, with common failure of subsistence networks for the most vulnerable” (171–172).

In the interview with Lisa Nakamura that caps this section, Haraway emphasizes what her (North American) readers often forget, sometimes through “a kind of motivated refusal,” that the Manifesto first appeared in *Socialist Review*, “not *Wired* magazine,” and that her cyborg was “not a celebratory, blissed-out wired bunny.” Reflecting on more than fifteen years of reception, Haraway’s interview attempts to recover the cyborg as a figure of class analysis, a figure for an entire world of labor and lifeways arranged by the informatics of domination, “not just designers and users,” but everyone in the service and homework economy: janitors, perma-temps, motherboard assemblers, as well as everyone in service of those economies, providing the feminized labors of reproduction, including child care, health care, and a deeply instrumentalized education. Only from this focus on the biopolitical and laboring body, and “the systematic suffering built into” the lifeways of the cyborg, does Haraway build out a subsequent vision of political articulation through differences (one that has much in common with the democratic practice of hegemony theorized by Laclau and Mouffe), toward the possibilities of movement-building that this collection terms “the informatics of resistance.”

Observing the informatic logic of increasing linguistic standardization on the Internet, David Golumbia pursues the skeptical tradition of Haraway’s work by observing the pre-eminence of English in the medium (of the world’s 6,700 languages). The system of social relations associated with the global domination of that language, together with the logic of dominant mark-up languages, has severe consequences for the possibilities of resistant deployment of the technology. Commenting on the sense of community-building that pervades Internet-utopian discourse (and which is implicit in such formulations as Manuel De Landa’s “meshworks”), Golumbia asks us to note that the various possibilities of a technology “should not distract us from understanding how the medium is actually being used.” In the case of the hypertextuality of the Internet, Golumbia observes for instance that the “active reader” of hypertext theory is in practice interpellated by net-capitalist and English-language media formations deriving “from a culturally-preconstructed taxonomy from which dissent is difficult to conceptualize, let alone practice.” Observing the role played by Internet mediation in the active eradication of conceptual and linguistic “metadiversity” in framing social reality, Golumbia’s reading of English and mark-up languages contributes significantly to Haraway’s thoughts regarding the colonization of the globe’s diverse lifeworlds by military and commercial interests. Even in such apparently disparate locations of dominant activity as biology and communications, Haraway identified their “common move” in “the translation of the world into a problem of coding, a search for a common language in which all resistance to instrumental control disappears and all heterogeneity can be submitted disassembly, reassembly, investment, and exchange”(164). Haraway’s feminist challenge (of “coding” an alternate feminist self to the compulsory informatic logic of the cyborg), is also Golumbia’s challenge, to get beyond the version of bioinformatic logic that is disseminated “at the explicit prodding of military and capitalist interests,” an efficiency and transparency that performs the work-for-capital of remov-

ing from cognition itself “the multiple, variant approaches to social reality encoded in the many thousands of human languages over time.” Similarly, Matt Kirschenbaum’s study of the rise and fall of VRML provides a focused instance of the linguistic and cognitive paucity of actual networked experience.

As Paul Smith observes, the process of global capitalist dominion produces a “third world” within the First, and a “first world” within the Third, a southern hemisphere of “underdevelopment” within the borders of industrialized liberal democratic Northern-hemisphere nations, and a slice of northern-hemisphere liberal democratic lifeways in the global South. This means, for instance, the appearance of North-American style shopping malls for the wealthy stratum in places such as Shanghai, Nairobi, and Jakarta, and the simultaneous appearance of super-exploitation among the service workers, flex-timers, and immigrants living within the national borders of the United States or Germany – not to mention the revival in the “developed world” of such “underdeveloped” forms of exploitation as convict labor, piece work, the sweatshop, and so on. Many of the forms of super-exploitation, in the United States and elsewhere, are state-sponsored and compulsory, such as welfare-to-work programming, convict labor, or the refusal to recognize graduate students as workers. In economic terms, this compulsion indicates the capacity of transnational capital to employ the state to get beyond the simple exploitation of wage labor characterizing the developed world (Marx ironically termed wage labor “free labor,” free in the “double sense” of formal citizenship rights but also free to starve in capital’s reserve army of surplus workers). The state-sponsored revival of unfree and semi-free forms of labor (super-exploitation) in the developed world is one unexpected form of the “new economy” of agile production made possible by the integration of information technology with capitalist domination.

Tiziana Terranova’s ironically titled “Free Labor” explores some of the ways that digital media capital bypasses the state in creating forms of super-exploitation. While convicts, students, and welfare recipients are generally compelled or induced to work for wages well below the rates of citizen workers by way of direct policy intervention, Terranova discusses the ways in which the ideological formations of the “digital economy” have given rise to workers whose labor is “free” in a third sense not envisioned by Marx in developed societies: labor that is literally donated to capital, “simultaneously voluntarily given and unwaged, enjoyed and exploited,” the massive and largely unpaid work of erecting the Web itself, from site-building, software creation, list monitoring, content creation through participation in discussions, blogging, posting, posing, and performing – even the labor of reading that can be accumulated as capital through the capturing of eyeball-time as profit. Particularly illuminating is her willingness to see the continuities between these forms of donating one’s labor to capital and earlier forms, such as the lengthy tradition of expropriating the labor of a life in confessional narratives, especially in such contemporary forms as serving as a “content provider” for Jerry Springer or *America’s Funniest Home Videos*. “In a sense, they manage the impossible,” she writes, “creating monetary value out of the most reluctant members of the post-modern cultural economy: those who do not produce marketable style, who are not

qualified enough to enter the fast world of the knowledge economy, are converted into monetary value through their capacity to perform their misery.”

The role played in digital-capitalist production by the whole ensemble of human social activities (what Marx termed our “species being”) is also the focus of Nick Dyer-Witheford’s contribution. Seizing on the spectacular size of the interactive-gaming market (in the U.S. alone, larger than Hollywood’s annual box office), he describes the ease with which technocapitalism has successfully incorporated the knowledge dimension of species being (“general intellect”), as well as some of the prospects for an other-than-capitalist elaboration of the same process. Just as the automobile represents the ideal commodity of Fordist industrial production, Dyer-Witheford argues that the video game can be considered the ideal commodity of post-Fordist production, “embodying its most powerful economic, social, and cultural tendencies.” For him interactive gaming “was a child not of the free market” but is instead “derivative of nuclear war preparations,” a “spinoff of the military-industrial complex,” emerging out of an ensemble of relations best described as a “military-entertainment complex.” As an experiential commodity, circulating in the “smoothly integrated circuit” of global capital, one which draws on the free R& D of unpaid beta-testers as well as the profit potential of excess propaganda work from the Pentagon, gaming offers a paradigm of knowledge-based capitalism. On the other hand, Dyer-Witheford notes, the very frictionlessness of accumulation in the gaming industry points to its greater risks: just as the gaming industry seems to seamlessly incorporate the knowledge-work of the species without compensation, so does the species seem to have the capacity to enjoy the gaming commodity without compensation – through piracy, for example. The very youth whose gaming energies, desires, testing labor-power, and eyeball-time are captured as profit are also dedicated to gaming without paying. Similarly, the rate of general technological innovation that creates a very cheap “upgrade economy” for the gaming industry also presents the continuous risk that the capital expenditures invested in research and development will be destroyed “before they can be translated into profit.” The material basis of gaming in *maquiladora* and sweatshop operations presents obstacles to the smooth circulation of gaming products: in a sped-up innovation economy, labor unrest presents the prospect of enormous losses.

But the most audacious of Dyer-Witheford’s suggestions is that gaming has potential socio-cultural consequences beyond the manifestations of piracy, hacktivism, and even the freeware manifestations (of “dot communism”): he suggests that gaming’s utopian impulses can be considered in relation to the possibilities of decentralized democratic planning, a form of socialist participatory economics based not on the “central processing” of the state, but on the possibility of highly distributed intellection. Not merely the utopian dimension of gaming structures this possibility, he insists: “What the Pentagon has put into general circulation is not just training to kill, but training to plan.”

# Metadiversity: On the Unavailability of Alternatives to Information

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*David Golumbia*

Despite its apparent global variety, the Internet is more linguistically uniform than it is linguistically diverse. Almost all Internet traffic is conducted in one of the world's 100 or so dominant languages, and the great majority takes place in the top 10 or so languages, with English being especially dominant due, among other reasons, to its use in the Internet's coding infrastructure. Unwritten and nonstandardized languages, which make up the majority of the world's approximately 6,700 languages, are hardly accounted for in the structure of Internet communication.<sup>1</sup> The emphasis in today's Internet development on informatic models and on structured information reveals a bias characteristic not only of modern technological practices but also of modern standardized languages. This bias may limit the Internet's effectiveness in being deployed for non-informatic uses of language, which have themselves been significantly underplayed in Western technological development and its theory.

## 1. INFORMATICS

Much cultural analysis of the Internet focuses on information – loosely, what is typically thought of as “content.” That is, the analytic object is what the user sees most prominently on the page, the words he or she types into a chat interface, the articles displayed and/or the aesthetic possibilities of website creation, and the means for transmitting, storing and replicating them.<sup>2</sup> We refer to the advent of the Internet as an “Information Revolution” and to the computing infrastructure as “Information Technology” (IT). All of this suggests that information was somehow what was in need of technological change and that the inefficient transfer of information was an obvious social problem requiring a revolution. But for the human users of the Internet, information is realized, nearly exclusively, via printed language. So in addition to being part of the computer revolution, the Internet needs also to be seen in the wider frames of human languages and language technologies, where the question of the informatic

nature of language is much more highly vexed than the IT revolution would make it appear.

Often, rather than IT, when we talk about what may be socially transformative about the Internet, we focus just as often on social connection and community. So although the Internet is seen principally as a valuable reservoir of information, its main contribution may one day be seen as a catalyst for the formation of communities. Since communities bound by common interests existed long before computers, it is not as if we have now entered the next stage in the evolution of society (the ‘information age’). Rather, computer meshworks have created a bridge to a stable state of social life which existed before massification and continues to coexist alongside it. (De Landa, *Thousand Years*, 254)

Yet Manuel De Landa himself points out that it is standardized languages in general and most of all standardized written English as a medium for technical communication that open the possibility of the Internet itself. “English became the language of computers, both in the sense that formal computer languages that use standard words as mnemonic devices (such as Pascal or Fortran) use English as a source and in the sense that technical discussions about computers tend to be conducted in English (again, not surprisingly, since Britain and the United States played key roles in the development of the technology)” (253).

De Landa sees, rightly at least in a limited sense, that the Internet is becoming a place where it can be possible for “pride of the standard [to be] seen as a foreign emotion, where a continuum of neo-Englishes flourishes, protected from the hierarchical weight of ‘received pronunciations’ and official criteria of correctness” (253–4). But the boundaries of this continuum are narrow precisely because it is neo-Englishes rather than a diversity of world languages that flourishes. It is no accident of history that the programming and markup languages that structure the Internet are almost exclusively written in standardized fragments of English, especially as English has been revisioned into the sub-languages of logic and mathematics.<sup>3</sup> It is, rather, characteristic of these historical developments and of their constitutive relation to modern identity itself. It appears, at best, premature to suggest that systems constructed within such highly formalized, abstracted and, in an important sense, fictional structures could be responsible to the texture of human language – a texture whose variety we have scarcely begun to apprehend.<sup>4</sup> (But which is at the same time familiar enough that we all understand the degree to which computers continue to fail to do anything very close to producing or understanding spontaneous human language.) For despite the appearance created in no small part by programming languages themselves, human languages need not be abstracted, one-to-one, univocally interpretable, or structured much like systems of propositional logic. In fact, these characteristics are rare across the languages we do find in human history and contemporary (but not, in this case, necessarily modern) social life.<sup>5</sup> Rather than a medium for transmitting and sharing human language, then, we must be prepared to see the proliferation of computer networks as part of an ongoing effort to shift the basis of language use toward one appropriate for an informatic econ-

omy.<sup>6</sup> It is the constitutive power of this phenomenon to which we must learn to be especially attentive.

## 2. HYPERTEXT

There is a curious lack of fit between the phenomenon called *hypertext* examined as an abstract or theoretical object, and hypertext as it is used on the Internet. As the term has been advanced in academic writing, hypertext refers to what might be thought of as a multidimensional intra-document linking system that helps us to “abandon conceptual systems founded upon ideas of center, margin, hierarchy, and linearity and replace them by ones of multilinearity, nodes, links, and networks” (Landow, *Hypertext*, 2). Taking as paradigmatic a particular kind of interactive narrative, including the works of Michael Joyce and the program Storyspace, these theories stress the ways in which “hypertext . . . provides an infinitely re-centerable system whose provisional point of focus depends upon the reader, who becomes a truly active reader in yet another sense” (*Hypertext*, 11).

To be sure, these distributive, informational networks do exist, but it is also fair to say that they are not the rule in terms of contemporary uses of hypertext. As the Web has matured, another and perhaps much more obvious usage of hypertext dominates, in which stability, centering, order, and logic are not necessarily resisted but may in fact be reinforced. Today’s web pages use hypertextual linking primarily to drive navigation in and among complete, stable, “sticky” application interfaces. This is what drives both standard and personalized portal pages. A personalized news page on a portal site such as Yahoo!, for example, consists of headlines in many areas of world and local news, divided into categories and subcategories that are intensely logical, that are in fact derived from a culturally-preconstructed taxonomy from which dissent is difficult to conceptualize, let alone practice. So the fact that some kinds of interesting and potentially transformative constructions are possible within a given medium should not distract us from understanding how the medium is actually being used, especially when these uses are very large-scale and very directly implicated in the production of contemporary subjectivities.

On our Web, HTML and hypertext are used to create rich, absorbing navigational experiences that instruct the user to stay where they are, with only occasional side glances to alternate information sources. Organizations focus workers’ daily experiences around wide-area websites, confirming exactly the identitarian structures that hypertext might be thought to resist. Every student, teacher, office worker, engineer, professor is compelled to have a relation to these stable, compelling, relentlessly logical interactive presences, in which documents are not so much intercut with each other as presented in orderly, menu-based groups.

In fact, it is odd that, instead of HTML, we speak of hypertext when we try to locate the salient analytic object in digital textuality. On reflection, HTML really does

define what happens on the Web to an astonishingly large degree, and HTML is far more defined and linear than the word “hypertext” would suggest. HTML is typically used to structure the page, and the user’s experience of the page, so as to lead the user in a particular direction with particular goals in mind. That these goals are so often commercial and so often transaction-oriented seems to expose, to literalize, the most profound aspects of the Marxist critique of ideology in language. HTML surrounds “written” electronic language with a literal meta-language, whose goal is overt and unavoidable: to structure explicitly the page’s functions.

While the ability of HTML to create links between documents and parts of documents is critical to the Web, it is also merely one of a large set of programmatic features available to the web page writer, all of whose purpose is to help create structure. To some degree this is content-neutral; obviously no particular paragraph of writing is barred from being surrounded with p and p tags. But the entire set of HTML tags is deliberately built up from a system whose purpose is to structure information for cataloging and retrieval: to mark each and every piece of linguistic source data with some kind of markup tag that allows post-processing and redelivery. In this way language is constrained within the informatic paradigm on the Internet to a surprising degree.

### 3. STRUCTURED INFORMATION

HTML (HyperText Markup Language) is typically thought of as a kind of design tool, and of course it is. But HTML is also a tool for structuring information: for applying general metadata to all the elements in a presentation set. “Structured information is information that is analyzed. . . . Only when information has been divided up by such an analysis, and the parts and relationships have been identified, can computers process it in meaningful ways” (DeRose, “Structured Information,” 1). HTML was in fact written originally by Tim Berners-Lee as a kind of simplified version of a language in which contents are explicitly tagged with meaningful metadata, called SGML for Standard Generalized Markup Language.<sup>7</sup> SGML was developed for engineering and military documentation, in which it is assumed that every piece of information needs to be indexed for rapid retrieval and cross-matching.<sup>8</sup>

Today HTML is used to apply structure to the general linguistic environment of the Internet. The primary structuring use of even the specific function known as hyper-linking is not that of connecting disparate documents or alternate paths through multidimensional content. Rather, linking is used for menus and other navigational elements. The big tabs at the top of the Amazon.Com page that allow the user to choose among Books, Video, and Lawn Tools are the meat of hypertext. The categories themselves are not arbitrary, but instead are generated out of much more highly-structured data environments (databases).<sup>9</sup> These tabs can even be thought of as a kind of exposure of the metadata environment of the website. In a commercial Web operation such

as Amazon.Com, this activity is inherently interactive with the user's patterns of spending, such that the entire structure of the hypertextual experience is laid in place by explicit logical programming rules, which operate ideally out of the realm of conscious comprehension. You don't know why the website seems to reflect categories that occasionally grab your interest or reviews of books that you have been wondering about.

The inherent structuring of HTML has been built on in recent technology by the advent of increasingly powerful dynamic web page generation language standards (such as Java Server Pages, Active Server Pages, and Cold Fusion pages – each of which can be identified by noting the presence of the extensions .jsp, .asp, and .cfm respectively in web page URLs). These technologies allow the incorporation of database content directly into what look like static HTML documents. They are very literally the language out of which the Web is largely delivered, for academic journals no less than e-commerce sites. Because these meta-rules are applied within the text of the apparent display language, they further blur the distinction that allows us to think of source code as metalinguistic and web page content as ordinary language – content.

Currently, the W3C has nearly finished the articulation of XHTML, a set of standards that allow all HTML content to be rewritten within XML-based contexts. XML stands for eXtensible Markup Language, and represents an explicit attempt to replicate the meta-linguistic tagging properties of SGML widely throughout the Internet (XML is actually a simplified form of SGML, although it has been extended beyond this original base). The standard pocketbook definition (literally) says that XML is a “meta-language that allows you to create and format your own document markups. . . . Thus, it is important to realize that there are no ‘correct’ tags for an XML document, except those you define yourself” (Eckstein, *XML*, 1).

That is, XML is a set of standards for expressing metadata in any form chosen by the programmer. Any viable set of categories should inherently be able to be realized in an XML implementation. In practice, of course, XML documents, especially their large-scale programmatic elements, are written exclusively in English (although the standard allows content to be written in any language, and some levels of tagging are certainly written today using European languages). More importantly, XML is rarely used by individuals or even community groups to create ad-hoc data structures; to the contrary, XML is most widely used by businesses to structure content for electronic commerce, and also for more directly technological applications. In these applications a standards committee drawn from members of prominent businesses and institutions within the appropriate domain is convened. The committee issues successive standards, which dictate exactly how content issued within the industry should be marked up. The neutral standards-based web page known as XML.org promotes itself as “The XML Industry Portal,” and offers pointers to standards for using XML within social domains as widely dispersed as Data Mining, Defense Aerospace and Distributed Management.<sup>10</sup> In fact, not surprisingly, SGML itself has survived in no small part due to its applicability in military engineering projects, where parts, features and functions are categorized to an exorbitant level.

In practice, then, the proliferation of XML and XML-like markup strategies suggests a remarkable degree of institutionally-controlled standardization. By incorporating display standards like XHTML into current web pages, developers can ensure the thorough categorization of every aspect of Web content. Rather than a page, the screen breaks down into more or less discrete units, served up in interaction with masses of data and statistical sampling that are by definition not available for the user to examine or understand. Instead, through such probability- and category-driven conceptions of “personality,” subjectivity itself is presented whole, pre-analyzed, organized, almost always around a central metaphorical goal, usually an economic one.<sup>11</sup> The user is free to choose whether she is interested in Sports or Finance, Hockey or Baseball, the Detroit Red Wings or the Seattle Seahawks. But she is hardly free to reassemble the page according to different logics, different filtering approaches, applying critical logic or any sort of interpretive strategy to the AP Newswire or Dow Jones news feed. This informatic goal instances itself in every aspect of the web page presentation, cultural-cognitive streambeds in which the water of thought almost unavoidably runs. It is not clear that our society has effective mechanisms for evaluating the repackaging of our language environment in this way, in the sense of allowing a large group of technicians and non-technicians to consider deeply its motivations and consequences.

#### 4. METADIVERSITY

Metadiversity is a term that fails to mean what we need it to. The term has been introduced by information scientists and conservation biologists to indicate the need for metadata resources about biological diversity, no doubt a critical requirement. But the term *metadiversity* suggests something else – a diversity of meta-level approaches, or even more directly, a diversity of approaches, of schemes, of general structuring patterns. Seen from the perspective of linguistic history, the linguistic environment of the Internet seems to offer not a plethora of schemes but a paucity of them, clustered around business-oriented and even military-based informatic uses. The language technology developed for the Web is primarily meant to make it easy to complete a transaction, close a deal, accept a payment; it is less clearly meant to facilitate open and full speech, let alone to foster a true diversity of approaches to language.

The history of language is rich with examples of structural alternatives to our current environment. These examples include phenomena found in what are today known as “polysynthetic” and other primarily oral languages. Such languages display grammatical and lexical differences from English, from European languages, and even from some modern non-European languages like the dominant languages of Asia. The languages stand in ambiguous relation to the kind of form/content split that has ground its way thoroughly into Western language practice, so much so that no less a linguist than Roy Harris can suggest that the triumph of computers represents the triumph of a “mechanistic conception of language” (*Language Machine*, 161). This is not some iso-

lated ideology that can be contained within the technical study of linguistics (whose participation in the system of disciplinary boundaries is already highly problematic), though its presence in linguistics is clear and unambiguous. It extends outward in every way to the culture at large, providing models of subjectivity for a great percentage of those who provide so-called intellectual capital for international business. The ideology precisely provides form for subjectivity, suggesting to many normative individuals that existence itself is subject to binary thinking and unitary pursuit of goals.

In the most curious way, this ideology reveals its power through a kind of strong misreading. Just as the term *metadiversity* is in effect encapsulated against its most direct lexical content, so the apparent homology between modern information networks is misrendered, resulting in a highly teleological area of research known loosely as *bioinformatics*. Thinking broadly of the effects various telematic changes have had on the development of modern consciousness, Gayatri Spivak writes that “the great narrative of Development is not dead. The cultural politics of books like *Global Village* and *Postmodern Condition* and the well-meaning raps upon raps upon the global electronic future that we often hear is to provide the narrative of development(globalization)-democratization (U.S. Mission) an alibi” (*Critique*, 371). The marriage of the deep biological/machine metaphor and the development narrative produces a desire to make information live, to replace and translate the units of biological information (genes) with those of an artificial, formal linguistic system, but which somehow manages always to work in accordance with the needs of transnational capital.

We see the marks of this deep ideology everywhere in culture, where it almost unfailingly works to support the processes of globalist, nationalist development (even where these merely comes down to the more local politics of academic disciplines) and against the claims of marginal, deterritorialized, often de-linguaged minority groups.<sup>12</sup> The deep metaphors at the heart of Chomsky’s writings have lately pushed closer to the surface, so that he now thinks of language in terms of “perfection” and “optimality.” “The language faculty might be unique among cognitive systems, or even in the organic world, in that it satisfies minimalist assumptions. Furthermore, the morphological parameters could be unique in character, and the computational system  $C_{HL}$  biologically isolated” (*Minimalist Program*, 221). This bio-computer, unique in nature (but ubiquitous in modern thought and fiction), must be characterizable in terms of algebraic or otherwise formal rules, which take their form not from human language but from the logical abstractions on which computers are built. It is no surprise that Chomsky’s writing has lately started to use as core terms, in addition to abstract words such as *Move* and *Derivation*, terms which sound derived directly from programming languages. *The Minimalist Program* invokes *Select* (226ff.), *Merge* (226ff.), *Spell-Out* (229ff.), and perhaps most tellingly, *Crash* (230ff.), which happens “at LF [Logical Form], violating FI [Full Interpretation]” (230) – all terms with wide applicability and use in various domains of computer science and programming languages. (From this small historical distance, it now seems hard to construe as accident that just as the use and development of the computer really takes off at MIT, so does the theory that lan-

guage should be understood primarily as the stuff that computers understand – symbols manipulated by a logical processor.<sup>13</sup> It is also no accident that much of this research was directly funded by the military for the express purpose of getting machines to understand speech, presumably for intelligence purposes.<sup>14</sup>

Within the field now called *bioinformatics*, misapplication of the bio-computer metaphoric cluster runs rampant, often mapped very precisely onto the direct-forward telos of capital. Most familiarly, the term refers to the collection of genetic data in computerized databases – where it already bleeds over into the ambition to read the human genome like a book, like a set of explicit and language-like instructions, again construing language explicitly as an information-transfer mechanism.<sup>15</sup> Perhaps the genes truly are like human language – in which case they would appear full of systemic possibilities, none of which are realized in similar or equipotent or equally meaningful ways. (Or maybe genes really are informatic, in which case the reverse cautions might also apply.) What would seem plainest on a dispassionate consideration of intellectual history is that there are probably all sorts of ways of processing genetic material that will not be at all obvious or literal. This leads implacably to the conclusion that, because we seem unable to consider what we are doing prior to operating, we are no doubt even now rewriting scripts whose meanings we scarcely know.

Would that this were the only place in which the bio-computer ideology drives us forward. But in fact other programs, also referred to as *bioinformatic*, grow not unfettered but with the explicit prodding of military and capitalist interests. These programs include efforts to create “living” programs, code that repairs itself, genetic algorithms, “artificial life,” and many others.<sup>16</sup> Of course many of these programs prove to be nearly as science-fictional as they sound, over time, but the fact that they exist as serious human propositions at all seems to me quite startling, and quite characteristic of the lack of metadiversity in our linguistic environment. In every case the motivation and the justification proceed hand-in-hand from remarkable, in-built assumptions about the inherent good in exploring basic natural phenomena via simulation and mimicry. I am not suggesting that such research is wrong, although I do hope it is less transgressive than it seems to want to appear. But it seems to me that an alternate perspective, derived from a cultural politics of the biological and linguistic-cultural environments, suggests that these research programs are profoundly ideological extensions of the public mind, rather than dispassionate considerations of possible roles for sophisticated linguistic tools in the human environment.

From such a perspective, in fact, what is striking about our world is not the attainments of our one linguistic society but the multiple, variant approaches to social reality encoded in the many thousands of human languages and cultures over time. As emblematic as the Internet is, it can be no more representative of the language environment than are the many linguistic technologies that have been systematically pressed out of modern awareness – and the fact that it is so heavily promoted by institutions of authority should, despite all the Internet’s attractions, give us pause. Reflecting on the natural world it seems hard to understand how human beings could come to any other

conclusion but that part of our responsibility is to preserve so that we might understand more deeply the many natural processes that have proven themselves to be, so far, largely beyond our ken. Instead, capital insists on the vivisection – or just outright destruction – of these biological and environmental alternatives. Less well-known is the plight of linguistic variety itself, the pressure exerted by English and standardization and the networked reliance on programming and markup languages on those existing remnants of the world's lost languages.<sup>17</sup> These languages must not be thought of as simple “formal variants,” alternate ways of approaching the same underlying material (which a computational perspective might seem to suggest). Instead, they are true examples of metadiversity – systems or quasi-systems that encode not just methods of approaching social relations but of the history of the self, the constitution of identity and otherness.<sup>18</sup>

With respect to our linguistic environment, even a dispassionate and so-called scientific perspective, no less a cultural materialist one, suggests that what is most vital to us is our multiplicity of structural alternatives, the heterogeneity of social interpretations whose variance itself is part of what allows society to be flexible, accommodative, meaningful.<sup>19</sup> We see again and again the record of apparently significant cultural histories characterized as myth, while one central set of metaphors derived from the success of the physical sciences continues to dominate investigation of not just the body but of human culture itself, which is to say language.<sup>20</sup>

## 5. FUTURES

Perhaps the promise of the Internet lies in the marks within it, even today, of mechanisms leading toward the creation and revitalization of alternate and variable kinds of languages and language-like formations, to some degree beyond and outside of information and communication. Of course a critical part of such formations is the raw assembling of communicative groups, such as newsgroups, chat rooms, website-based communities, and other devices wherein electronic communication is fundamentally multithreaded. Previous innovations in communication have generally been structured either on broadcast (one-to-many) communications, such as print publishing, television and radio broadcasting, where a generally powerful single entity is able essentially to create many copies of its own communications and then to distribute these widely among a population literate in the given medium. Another set of communicative technologies enable one-to-one interactions (the chief examples are letter writing, the telegraph and telephony). The Internet does encourage various and to some extent innovative kinds of both one-to-one and broadcast communications. Even more than these, however, the promise of the Internet seems to reside in its ability to facilitate something like many-to-many communicative formations. This is to approximate something not like the myriad forms of small group and peer communication that are characteristic of social groups.

In both the one-to-one and many-to-many registers we find true arenas for linguistic innovation. One reason there has been such proliferation of language in our world (prior to the work of standardized languages like English) is that both intimate and social communication, when unconstrained by institutional pressures that are especially characteristic of broadcast communicative praxes, provide especially fertile ground for experimentation and performative adoption of linguistic and cultural strategies.<sup>21</sup> Outside modern institutionalized standards, language is often perceived less as a set of static elements and rules to be applied according to pre-existing constraints, and more as cognitive medium for live innovation, deconstruction, creation, interaction.<sup>22</sup> One reason for the proliferation of languages the world over may be that linguistic diversity correlates somewhat directly with a kind of local adaptiveness – providing both for certain kinds of local cultural homogeneity but also for a great deal of real cultural diversity.<sup>23</sup>

There exists a relatively clear historical line from the monolingual policies and technologies that have been advocated especially by the West to the current relative monolinguality of the Web.<sup>24</sup> At the same time many of the phenomena described by critics of the Web – the bad spelling caused by typing emails quickly, poor editing of “fan”-created Web pages, apparently vague “emoticons” – demonstrate the power of noncanonical language to rise above the constraints on which standardization insists, usually for the purposes of social interaction, often far above or beyond meaning per se.<sup>25</sup> So does the Web’s ability to draw into interaction communities from many different language groups, including groups whose languages have not been part of the standardization process but who nevertheless wish to use the network to speak in other registers.<sup>26</sup> To some extent, then, what seems on the surface least political about the Web may be what is most important: providing raw bandwidth to those whose voices and languages have been pushed away by standardization. (However, the relative difficulty of sustaining broadcast media technologies in nonstandard languages such as low-power radio and television stations lends some caution to this view.)

This is not exactly to argue that we should resist technological innovation altogether (though see Mander, *Absence of the Sacred* and Abram, *Spell of the Sensuous* for surprisingly compelling statements in this direction). It is to say that, in the realm of linguistic technology, it may well be the case that the stuff of spoken language itself provides a kind of bare technological matter that can help us to restructure social life in significant ways. A more effective Internet may need to be not merely written, but verbal and visual; it may need to accommodate better the full range of human sight, sound and gesture, to allow us to push beyond the linguistic constraints print and standardization have unwittingly placed on us. It may also be interesting to see if it is possible to encourage the development of new, non-roman-script linguistic representations (such as emoticons) which lack strongly standardized underpinnings. If, in fact, some kind of change in language technology is needed to create a more flexible and diverse society (as the IT revolution seems to suggest on its face), we might look just as fruitfully to the innovations produced over tens of generations by thoughtful speakers of human languages, as

we do to the more short-term innovations produced in the name of the general reduction of social language to informatic technologies.

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## NOTES

1. On the worldwide distribution of languages see Grimes, *Ethnologue*.
2. See, for example, Landow, *Hypertext and Hyper/Text/Theory*, Lunenfeld, *Digital Dialectic* and Bolter and Grusin, *Remediation*, all of which problematize the informatic focus while more or less endorsing it. Lessig, *Code* and Poster, *The Mode of Information* are the best recent attempts to think critically about the informatic infrastructure. Turkle, *Second Self* remains a touchstone in thinking critically about the cultural-psychological consequences of the computing environment. Also see the references in Mann, "What Is Communication."
3. I discuss this at greater length in Golumbia, "Computational Object." Also see Lyotard, *Postmodern Condition*.
4. Reddy, "The Conduit Metaphor," remains the single best articulation of the distance between the formalized communicative object and ; also see Lakoff and Johnson, *Metaphors We Live By* and *Philosophy in the Flesh* and Mann, "What Is Communication."
5. See Golumbia, "History of 'Language.'"
6. As discussed in Golumbia, "Hypercapital."
7. See the World Wide Web Consortium's (W3C) web pages on HTML, e.g., <http://www.w3.org/MarkUp/>.
8. Robins and Webster, *Times of the Technoculture*, provides an excellent overview of some of the direct military interests involved in the information revolution; also see De Landa, *War* and Poster, *Mode of Information*.
9. See Poster, *Mode of Information*, especially Chapter Three, "Foucault and Databases: Participatory Surveillance."
10. See <http://www.xml.org>. The Oasis-Open project at <http://www.oasis-open.org> is currently the locus for the promotion of Structured Information on the Internet.
11. For examples see Birbeck, Duckett and Gudmundsson, *Professional XML* and Fitzgerald, *Building B2B Applications*.
12. See Grenoble and Whaley, *Endangered Languages* and Skutnabb-Kangas, *Linguistic Genocide*.
13. This is made clearest in Huck and Goldsmith, *Ideology and Linguistic Theory*, and Harris, *Linguistics Wars*, though it requires some interpretation of either of these works to arrive at the point I am making here. Also see Harris, *Language Machine*, Lyotard, *Postmodern Condition* and Turkle, *Second Self*.
14. See Harris, *Linguistics Wars*, and De Landa, *War*, but also see the footnotes and endnotes of many of the early works of generative grammar in which military funding is explicitly mentioned. It is, for example, an odd note of linguistico-political history that Chomsky's principal mid-sixties work, *Aspects of the Theory of Syntax*, "was made possible in part by support extended the Massachusetts Institute of Technology, Research Laboratory of Electronics, by the JOINT SERVICES ELECTRONICS PROGRAM (U.S. Army, U.S. Navy, and U.S. Air Force) under Contract No. DA36-039-AMC-03200(E) . . ." (*Aspects*, iv).
15. Eugene Thacker discusses this aspect of the phenomenon briefly in his "Bioinformatics."
16. See, for example, Brown, *Bioinformatics*, Holland, *Adaptation in Artificial Systems*, and Vose, *Simple Genetic Algorithm*.
17. See Crystal, *Language Death*, Grenoble and Whaley, *Endangered Languages*, Maffi, *Biocultural Diversity* and Skutnabb-Kangas, *Linguistic Genocide*.

18. Thus recent evolutionary theory has begun to point, for example, to social structuring processes as linguistically generative, perhaps more so than the putative features of Universal Grammar—see, e.g., Dunbar, *Gossip* and Goody, *Social Intelligence and Interaction*.

19. This is exactly what is suggested in Abram, *Spell of the Sensuous* and Maffi, *Biocultural Diversity*—quite literally that linguistic diversity constitutes a critical feature of the natural environment and even that the environment requires linguistic diversity to sustain biodiversity.

20. See Lakoff and Johnson, *Metaphors We Live By* and *Philosophy in the Flesh*.

21. This seems to me in line, to at least some degree, with the approach toward identity and cultural politics found, for example, in Butler, “Performative Acts” and *Gender Trouble* and Spivak, “Acting Bits/Identity Talk” and *Critique of Postcolonial Reason*.

22. See Columbia, “History of ‘Language’” and Harris, *Language Machine*.

23. See Abram, *Spell of the Sensuous* and Maffi, *Biocultural Diversity*. On local cultural homogeneity, see Sapir, *Language*. On areal diffusion and its influence on linguistic history see Dixon, *Rise and Fall of Languages*. Derrida, *Monolingualism of the Other* offers some provocative reflections on the consequences of monolinguality.

24. On the earlier parts of this history see, for example, Ong, *Interfaces* and *Orality and Literacy* and, in another register, Anderson, *Imagined Communities*. On the consequences of the abrupt imposition of such technologies on human societies more generally, see Mander, *Absence of the Sacred*.

25. In addition to the social approach suggested in Dunbar, *Gossip*, also see the work of more recent language ideology theorists such as Kroskrity, *Regimes of Language* and Schieffelin, Woolard and Kroskrity, *Language Ideologies*.

26. See Crystal, *Language and the Internet*.

# Free Labor: Producing Culture for the Digital Economy

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*Tiziana Terranova*

*The real not-capital is labor.*

—Karl Marx, *Grundrisse*

Working in the digital media industry is not as much fun as it is made out to be. The “NetSlaves” of the eponymous Webzine are becoming increasingly vociferous about the shamelessly exploitative nature of the job, its punishing work rhythms, and its ruthless casualization ([www.dis-obey.com/netslaves](http://www.dis-obey.com/netslaves)). They talk about “24–7 electronic sweatshops” and complain about the ninety-hour weeks and the “moronic management of new media companies.” In early 1999, seven of the fifteen thousand “volunteers” of America Online (AOL) rocked the info-loveboat by asking the Department of Labor to investigate whether AOL owes them back wages for the years of playing chathosts for free.<sup>1</sup> They used to work long hours and love it; now they are starting to feel the pain of being burned by digital media.

These events point to a necessary backlash against the glamorization of digital labor, which highlights its continuities with the modern sweatshop and points to the increasing degradation of knowledge work. Yet the question of labor in a “digital economy” is not so easily dismissed as an innovative development of the familiar logic of capitalist exploitation. The NetSlaves are not simply a typical form of labor on the Internet; they also embody a complex relation to labor that is widespread in late capitalist societies.

In this essay I understand this relationship as a provision of “free labor,” a trait of the cultural economy at large, and an important, and yet undervalued, force in advanced capitalist societies. By looking at the Internet as a specific instance of the fundamental role played by free labor, this essay also tries to highlight the connections between the “digital economy” and what the Italian autonomists have called the “social factory.” The “social factory” describes a process whereby “work processes have shifted from the factory to society, thereby setting in motion a truly complex machine.”<sup>2</sup> Simultaneously voluntarily given and unwaged, enjoyed and exploited, free labor on the Net includes

the activity of building websites, modifying software packages, reading and participating in mailing lists, and building virtual spaces on MUDs and MOOs. Far from being an “unreal,” empty space, the Internet is animated by cultural and technical labor through and through, a continuous production of value that is completely immanent to the flows of the network society at large.

Support for this argument, however, is immediately complicated by the recent history of critical theory. How to speak of labor, especially cultural and technical labor, after the demolition job carried out by thirty years of postmodernism? The postmodern socialist feminism of Donna Haraway’s “Cyborg Manifesto” spelled out some of the reasons behind the antipathy of 1980s critical theory for Marxist analyses of labor. Haraway explicitly rejected the humanistic tendencies of theorists who see labor as the “pre-eminently privileged category enabling the Marxist to overcome illusion and find that point of view which is necessary for changing the world.”<sup>3</sup> Paul Gilroy similarly expressed his discontent at the inadequacy of Marxist analyses of labor to describe the culture of the descendants of slaves, who value artistic expression as “the means towards both individual self-fashioning and communal liberation.”<sup>4</sup> If labor is “the humanizing activity that makes [white] man,” then, surely, humanizing labor does not really belong in the age of networked, posthuman intelligence.

However, the “informatics of domination” that Haraway describes in the “Manifesto” is certainly preoccupied with the relation between cybernetics, labor, and capital. In the fifteen years since its publication, this triangulation has become even more evident. The expansion of the Internet has given ideological and material support to contemporary trends toward increased flexibility of the workforce, continuous reskilling, freelance work, and the diffusion of practices such as “supplementing” (bringing supplementary work home from the conventional office).<sup>5</sup> Advertising campaigns and business manuals suggest that the Internet is not only a site of disintermediation (embodying the famous death of the middle man, from bookshops to travel agencies to computer stores), but also the means through which a flexible, collective intelligence has come into being.

This essay does not seek to offer a judgment on the “effects” of the Internet, but rather to map the way in which the Internet connects to the autonomist “social factory.” I am concerned with how the “outernet” – the network of social, cultural, and economic relationships that criss-crosses and exceeds the Internet – surrounds and connects the latter to larger flows of labor, culture, and power. It is fundamental to move beyond the notion that cyberspace is about escaping reality in order to understand how the reality of the Internet is deeply connected to the development of late postindustrial societies as a whole.

Cultural and technical work is central to the Internet but is also a widespread activity throughout advanced capitalist societies. I argue that such labor is not exclusive to the so-called knowledge workers, but is a pervasive feature of the postindustrial economy. The pervasiveness of such production questions the legitimacy of a fixed distinction between production and consumption, labor and culture. It also undermines Gilroy’s distinction between work as “servitude, misery and subordination” and artistic

expression as the means to self-fashioning and communal liberation. The increasingly blurred territory between production and consumption, work and cultural expression, however, does not signal the recomposition of the alienated Marxist worker. The Internet does not automatically turn every user into an active producer, and every worker into a creative subject. The process whereby production and consumption are reconfigured within the category of free labor signals the unfolding of a different (rather than completely new) logic of value, whose operations need careful analysis.<sup>6</sup>

## THE DIGITAL ECONOMY

The term *digital economy* has recently emerged as a way to summarize some of the processes described above. As a term, it seems to describe a formation that intersects on the one hand with the postmodern cultural economy (the media, the university, and the arts) and on the other hand with the information industry (the information and communication complex). Such an intersection of two different fields of production constitutes a challenge to a theoretical and practical engagement with the question of labor, a question that has become marginal for media studies as compared with questions of ownership (within political economy) and consumption (within cultural studies).

In Richard Barbrook's definition, the digital economy is characterized by the emergence of new technologies (computer networks) and new types of workers (the digital artisans).<sup>7</sup> According to Barbrook, the digital economy is a mixed economy: it includes a public element (the state's funding of the original research that produced Arpanet, the financial support to academic activities that had a substantial role in shaping the culture of the Internet); a market-driven element (a latecomer that tries to appropriate the digital economy by reintroducing commodification); and a gift economy element, the true expression of the cutting edge of capitalist production that prepares its eventual overcoming into a future "anarcho-communism":

Within the developed world, most politicians and corporate leaders believe that the future of capitalism lies in the commodification of information. . . . Yet at the "cutting-edge" of the emerging information society, money-commodity relations play a secondary role to those created by a really existing form of anarcho-communism. For most of its users, the net is somewhere to work, play, love, learn and discuss with other people. . . . Unrestricted by physical distance, they collaborate with each other without the direct mediation of money and politics. Unconcerned about copyright, they give and receive information without thought of payment. In the absence of states or markets to mediate social bonds, network communities are instead formed through the mutual obligations created by gifts of time and ideas.<sup>8</sup>

From a Marxist-Hegelian angle, Barbrook sees the high-tech gift economy as a process of overcoming capitalism from the inside. The high-tech gift economy is a pio-

neering moment that transcends both the purism of the New Left do-it-yourself culture and the neoliberalism of the free market ideologues: “money-commodity and gift relations are not just in conflict with each other, but also co-exist in symbiosis.”<sup>9</sup> Participants in the gift economy are not reluctant to use market resources and government funding to pursue a potlatch economy of free exchange. However, the potlatch and the economy ultimately remain irreconcilable, and the market economy is always threatening to reprivatize the common enclaves of the gift economy. Commodification, the reimposition of a regime of property, is, in Barbrook’s opinion, the main strategy through which capitalism tries to reabsorb the anarcho-communism of the Net into its folds.

I believe that Barbrook overemphasizes the autonomy of the high-tech gift economy from capitalism. The processes of exchange that characterize the Internet are not simply the reemergence of communism within the cutting edge of the economy, a repressed other that resurfaces just at the moment when communism seems defeated. It is important to remember that the gift economy, as part of a larger digital economy, is itself an important force within the reproduction of the labor force in late capitalism as a whole. The provision of “free labor,” as we will see later, is a fundamental moment in the creation of value in the digital economies. As will be made clear, the conditions that make free labor an important element of the digital economy are based in a difficult, experimental compromise between the historically rooted cultural and affective desire for creative production (of the kind more commonly associated with Gilroy’s emphasis on “individual self-fashioning and communal liberation”) and the current capitalist emphasis on knowledge as the main source of value-added.

The volunteers for America Online, the NetSlaves, and the amateur Web designers are not working only because capital wants them to; they are acting out a desire for affective and cultural production that is nonetheless real just because it is socially shaped. The cultural, technical, and creative work that supports the digital economy has been made possible by the development of capital beyond the early industrial and Fordist modes of production and therefore is particularly abundant in those areas where post-Fordism has been at work for a few decades. In the overdeveloped countries, the end of the factory has spelled out the obsolescence of the old working class, but it has also produced generations of workers who have been repeatedly addressed as active consumers of meaningful commodities. Free labor is the moment where this knowledgeable consumption of culture is translated into productive activities that are pleurably embraced and at the same time often shamelessly exploited.

Management theory is also increasingly concerned with the question of knowledge work, that indefinable quality that is essential to the processes of stimulating innovation and achieving the goals of competitiveness. For example, Don Tapscott, in a classic example of managerial literature, *The Digital Economy*, describes the digital economy as a “new economy based on the networking of human intelligence.”<sup>10</sup> Human intelligence provides the much needed value-added, which is essential to the economic health of the organization. Human intelligence, however, also poses a problem: it cannot be

managed in quite the same way as more traditional types of labor. Knowledge workers need open organizational structures to produce, because the production of knowledge is rooted in collaboration, that is, in what Barbrook defined as the “gift economy”:

The concept of supervision and management is changing to team-based structures. Anyone responsible for managing knowledge workers knows they cannot be “managed” in the traditional sense. Often they have specialized knowledge and skills that cannot be matched or even understood by management. A new challenge to management is first to attract and retain these assets by marketing the organization to them, and second *to provide the creative and open communications environment where such workers can effectively apply and enhance their knowledge.*<sup>11</sup>

For Tapscott, therefore, the digital economy magically resolves the contradictions of industrial societies, such as class struggle: while in the industrial economy the “worker tried to achieve fulfillment through leisure [and] . . . was alienated from the means of production which were owned and controlled by someone else,” in the digital economy the worker achieves fulfillment through work and finds in her brain her own, unalienated means of production.<sup>12</sup> Such means of production need to be cultivated by encouraging the worker to participate in a culture of exchange, whose flows are mainly kept within the company but also need to involve an “outside,” a contact with the fast-moving world of knowledge in general. The convention, the exhibition, and the conference – the more traditional ways of supporting this general exchange – are supplemented by network technologies both inside and outside the company. Although the traffic of these flows of knowledge needs to be monitored (hence the corporate concerns about the use of intranets), the Internet effectively functions as a channel through which “human intelligence” renews its capacity to produce.

This essay looks beyond the totalizing hype of the managerial literature but also beyond some of the conceptual limits of Barbrook’s work. It looks at some possible explanation for the coexistence, within the debate about the digital economy, of discourses that see it as an oppositional movement and others that see it as a functional development to new mechanisms of extraction of value. Is the end of Marxist alienation wished for by the manager guru the same thing as the gift economy heralded by leftist discourse?

We can start undoing this deadlock by subtracting the label *digital economy* from its exclusive anchorage within advanced forms of labor (we can start then by depioneering it). This essay describes the digital economy as a specific mechanism of internal “capture” of larger pools of social and cultural knowledge. The digital economy is an important area of experimentation with value and free cultural/affective labor. It is about specific forms of production (Web design, multimedia production, digital services, and so on), but is also about forms of labor we do not immediately recognize as such: chat, real-life stories, mailing lists, amateur newsletters, and so on. These types of cultural and technical labor are not produced by capitalism in any direct, cause-and-effect fashion;

that is, they have not developed simply as an answer to the economic needs of capital. However, they have developed in relation to the expansion of the cultural industries and are part of a process of economic experimentation with the creation of monetary value out of knowledge/culture/affect.

This process is different from that described by popular, left-wing wisdom about the incorporation of authentic cultural moments: it is not, then, about the bad boys of capital moving in on underground subcultures/subordinate cultures and “incorporating” the fruits of their production (styles, languages, music) into the media food chain. This process is usually considered the end of a particular cultural formation, or at least the end of its “authentic” phase. After incorporation, local cultures are picked up and distributed globally, thus contributing to cultural hybridization or cultural imperialism (depending on whom you listen to).

Rather than capital “incorporating” from the outside the authentic fruits of the collective imagination, it seems more reasonable to think of cultural flows as originating within a field that is always and already capitalism. Incorporation is not about capital descending on authentic culture but a more immanent process of channeling collective labor (even as cultural labor) into monetary flows and its structuration within capitalist business practices.

Subcultural movements have stuffed the pockets of multinational capitalism for decades. Nurtured by the consumption of earlier cultural moments, subcultures have provided the look, style, and sounds that sell clothes, CDs, video games, films, and advertising slots on television. This has often happened through the active participation of subcultural members in the production of cultural goods (e.g., independent labels in music, small designer shops in fashion).<sup>13</sup> This participation is, as the word suggests, a voluntary phenomenon, although it is regularly accompanied by cries of sellouts. The fruit of collective cultural labor has been not simply appropriated, but voluntarily *channeled* and controversially *structured* within capitalist business practices. The relation between culture, the cultural industry, and labor in these movements is much more complex than the notion of incorporation suggests. In this sense, the digital economy is not a new phenomenon but simply a new phase of this longer history of experimentation.

## KNOWLEDGE CLASS AND IMMATERIAL LABOR

In spite of the numerous, more or less disingenuous endorsements of the democratic potential of the Internet, the links between it and capitalism look a bit too tight for comfort to concerned political minds. It has been very tempting to counteract the naive technological utopianism by pointing out how computer networks are the material and ideological heart of informed capital. The Internet advertised on television and portrayed by print media seems not just the latest incarnation of capital’s inexhaustible search for new markets, but also a full consensus-creating machine, which socializes the

mass of proletarianized knowledge workers into the economy of continuous innovation.<sup>14</sup> After all, if we do not get online soon, the hype suggests, we will become obsolete, unnecessary, disposable. If we do, we are promised, we will become part of the “hive mind,” the immaterial economy of networked, intelligent subjects in charge of speeding up the rhythms of capital’s “incessant waves of branching innovations.”<sup>15</sup> Multimedia artists, writers, journalists, software programmers, graphic designers, and activists together with small and large companies are at the core of this project. For some they are its cultural elite, for others a new form of proletarianized labor.<sup>16</sup> Accordingly, the digital workers are described as resisting or supporting the project of capital, often in direct relation to their positions in the networked, horizontal, and yet hierarchical world of knowledge work.

Any judgment on the political potential of the Internet, then, is tied not only to its much vaunted capacity to allow decentralized access to information but also to the question of who uses the Internet and how. If the decentralized structure of the Net is to count for anything at all, the argument goes, then we need to know about its constituent population (hence the endless statistics about use, income, gender, and race of Internet users, the most polled, probed, and yet opaque survey material of the world). If this population of Internet users is largely made up of “knowledge workers,” then it matters whether these are seen as the owners of elitist cultural and economic power or the avant-garde of new configurations of labor that do not automatically guarantee elite status.

As I argue in this essay, this is a necessary question and yet a misleading one. It is necessary because we have to ask who is participating in the digital economy before we can pass a judgment on it. It is misleading because it implies that all we need to know is how to locate the knowledge workers within a “class,” and knowing which class it is will give us an answer to the political potential of the Net as a whole. If we can prove that knowledge workers are the avant-garde of labor, then the Net becomes a site of resistance;<sup>17</sup> if we can prove that knowledge workers wield the power in informed societies, then the Net is an extended gated community for the middle classes.<sup>18</sup> Even admitting that knowledge workers are indeed fragmented in terms of hierarchy and status won’t help us that much; it will still lead to a simple system of categorization, where the Net becomes a field of struggle between the diverse constituents of the knowledge class.

The question is further complicated by the stubborn resistance of “knowledge” to quantification: knowledge cannot be exclusively pinned down to specific social segments. Although the shift from factory to office work, from production to services is widely acknowledged, it just isn’t clear why some people qualify and some others do not.<sup>19</sup> The “knowledge worker” is a very contested sociological category.

A more interesting move, however, is possible by not looking for the knowledge class within quantifiable parameters and concentrating instead on “labor.” Although the notion of class retains a material value that is indispensable to make sense of the experience of concrete historical subjects, it also has its limits: for example, it “freezes” the

subject, just like a substance within the chemical periodical table, where one is born as a certain element (working-class metal) but then might become something else (middle-class silicon) if submitted to the proper alchemical processes (education and income). Such an understanding of class also freezes out the flows of culture and money that mobilize the labor force as a whole. In terms of Internet use, it gives rise to the generalized endorsements and condemnations that I have described above and does not explain or make sense of the heterogeneity and yet commonalities of Internet users. I have therefore found it more useful to think in terms of what the Italian autonomists, and especially Maurizio Lazzarato, have described as *immaterial labor*. For Lazzarato the concept of immaterial labor refers to *two different aspects* of labor:

On the one hand, as regards the “informational content” of the commodity, it refers directly to the changes taking place in workers’ labor processes . . . where the skills involved in direct labor are increasingly skills involving cybernetics and computer control (and horizontal and vertical communication). On the other hand, as regards the activity that produces the “cultural content” of the commodity, immaterial labor involves a series of activities that are not normally recognized as “work” – in other words, the kinds of activities involved in defining and fixing cultural and artistic standards, fashions, tastes, consumer norms, and, more strategically, public opinion.<sup>20</sup>

Immaterial labor, unlike the knowledge worker, is not completely confined to a specific class formation. Lazzarato insists that this form of labor power is not limited to highly skilled workers but is a form of activity of every productive subject within postindustrial societies. In the highly skilled worker, these capacities are already there. However, in the young worker, the “precarious worker,” and the unemployed youth, these capacities are “virtual,” that is they are there but are still undetermined. This means that immaterial labor is a virtuality (an undetermined capacity) that belongs to the postindustrial productive subjectivity as a whole. For example, the obsessive emphasis on education of 1990s governments can be read as an attempt to stop this virtuality from disappearing or from being channeled into places that would not be as acceptable to the current power structures. In spite of all the contradictions of advanced capital and its relation to structural unemployment, postmodern governments do not like the completely unemployable. The potentialities of work must be kept alive, the unemployed must undergo continuous training in order both to be monitored and kept alive as some kind of postindustrial reserve force. Nor can they be allowed to channel their energy into the experimental, nomadic, and antiproducer life-styles which in Britain have been so savagely attacked by the Criminal Justice Act in the mid-1990s.<sup>21</sup>

However, unlike the post-Fordists, and in accordance with his autonomist origins, Lazzarato does not conceive of immaterial labor as purely functional to a new historical phase of capitalism:

The virtuality of this capacity is neither empty nor ahistoric; it is rather an opening and a potentiality, that have as their historical origins and antecedents the “struggle against work” of the Fordist worker and, in more recent times, the processes of socialization, educational formation, and cultural self-valorization.<sup>22</sup>

This dispersal of immaterial labor (as a virtuality and an actuality) problematizes the idea of the “knowledge worker” as a class in the “industrial” sense of the word. As a collective quality of the labor force, immaterial labor can be understood to pervade the social body with different degrees of intensity. This intensity is produced by the processes of “channeling” a characteristic of the capitalist formation which distributes value according to its logic of profit.<sup>23</sup> If knowledge is inherently collective, it is even more so in the case of the postmodern cultural economy: music, fashion, and information are all produced collectively but are selectively compensated. Only some companies are picked up by corporate distribution chains in the case of fashion and music; only a few sites are invested in by venture capital. However, it is a form of collective cultural labor that makes these products possible even as the profit is disproportionately appropriated by established corporations.

From this point of view, the well-known notion that the Internet materializes a “collective intelligence” is not completely off the mark. The Internet highlights the existence of networks of immaterial labor and speeds up their accretion into a collective entity. The productive capacities of immaterial labor on the Internet encompass the work of writing/reading/managing and participating in mailing lists/websites/chatlines. These activities fall outside the concept of “abstract labor,” which Marx defined as the provision of time for the production of value regardless of the useful qualities of the product.<sup>24</sup> They witness an investment of desire into production of the kind cultural theorists have mainly theorized in relation to consumption.

This explosion of productive activities is undermined for various commentators by the minoritarian, gendered, and raced character of the Internet population. However, we might also argue that to recognize the existence of immaterial labor as a diffuse, collective quality of postindustrial labor in its entirety does not deny the existence of hierarchies of knowledge (both technical and cultural) which prestructure (but do not determine) the nature of such activities. These hierarchies shape the degrees to which such virtualities become actualities; that is, they go from being potential to being realized as processual, constituting moments of cultural, affective, and technical production. Neither capital nor living labor want a labor force that is permanently excluded from the possibilities of immaterial labor. But this is where their desires stop from coinciding. Capital wants to retain control over the unfolding of these virtualities and the processes of valorization. The relative abundance of cultural/technical/affective production on the Net, then, does not exist as a free-floating postindustrial utopia but in full, mutually constituting interaction with late capitalism, especially in its manifestation as global-venture capital.

## COLLECTIVE MINDS

The collective nature of networked, immaterial labor has been simplified by the utopian statements of the cyberlibertarians. Kevin Kelly's popular thesis in *Out of Control*, for example, is that the Internet is a collective "hive mind." According to Kelly, the Internet is another manifestation of a principle of self-organization that is widespread throughout technical, natural, and social systems. The Internet is the material evidence of the existence of the self-organizing, infinitely productive activities of connected human minds.<sup>25</sup> From a different perspective Pierre Levy draws on cognitive anthropology and poststructuralist philosophy to argue that computers and computer networks are sites that enable the emergence of a "collective intelligence." According to Eugene Provenzo, Levy, who is inspired by early computer pioneers such as Douglas Engelbart, argues for a new humanism "that incorporates and enlarges the scope of self-knowledge and collective thought."<sup>26</sup> According to Levy, we are passing from a Cartesian model of thought based on the singular idea of *cogito* (I think) to a collective or plural *cogitamus* (we think).

What is collective intelligence? It is a form of *universally distributed intelligence*, constantly enhanced, coordinated in real time, and resulting in the effective mobilization of skills. . . . The basis and goal of collective intelligence is the mutual recognition and enrichment of individuals rather than the cult of fetishized or hypostatized communities.<sup>27</sup>

Like Kelly, Levy frames his argument within the common rhetoric of competition and flexibility that dominates the hegemonic discourse around digitalization: "The more we are able to form intelligent communities, as open-minded, cognitive subjects capable of initiative, imagination, and rapid response, the more we will be able to ensure our success in a highly competitive environment."<sup>28</sup> In Levy's view, the digital economy highlights the impossibility of absorbing intelligence within the process of automation: unlike the first wave of cybernetics, which displaced workers from the factory, computer networks highlight the unique value of human intelligence as the true creator of value in a knowledge economy. In his opinion, since the economy is increasingly reliant on the production of creative subjectivities, this production is highly likely to engender a new humanism, a new centrality of man's [*sic*] creative potentials.

Especially in Kelly's case, it has been easy to dismiss the notions of a "hive mind" and a self-organizing Internet-as-free-market as euphoric capitalist mumbo jumbo. One cannot help being deeply irritated by the blindness of the digital capitalist to the realities of working in the high-tech industries, from the poisoning world of the silicon chips factories to the electronic sweatshops of America Online, where technical work is downgraded and worker obsolescence is high.<sup>29</sup> How can we hold on to the notion that cultural production and immaterial labor are collective on the Net (both inner and outer) without subscribing to the idealistic cyberdrool of the digerati?

We could start with a simple observation: the self-organizing, collective intelligence of cybercultural thought captures the existence of networked immaterial labor, but also neutralizes the operations of capital. Capital, after all, is the unnatural environment within which the collective intelligence materializes. The collective dimension of networked intelligence needs to be understood historically, as part of a specific momentum of capitalist development. The Italian writers who are identified with the post-Gramscian Marxism of *autonomia* have consistently engaged with this relationship by focusing on the mutation undergone by labor in the aftermath of the factory. The notion of a self-organizing “collective intelligence” looks uncannily like one of their central concepts, the “general intellect,” a notion that the autonomists “extracted” out of the spirit, if not the actual wording, of Marx’s *Grundrisse*. The “collective intelligence” or “hive mind” captures some of the spirit of the “general intellect,” but removes the autonomists’ critical theorization of its relation to capital.

In the autonomists’ favorite text, the *Grundrisse*, and especially in the “Fragment on Machines,” Marx argues that “knowledge – scientific knowledge in the first place, but not exclusively – tends to become precisely by virtue of its autonomy from production, nothing less than the principal productive force, thus relegating repetitive and compartmentalized labor to a residual position. Here one is dealing with knowledge . . . which has become incarnate . . . in the automatic system of machines.”<sup>30</sup> In the vivid pages of the “Fragment,” the “other” Marx of the *Grundrisse* (adopted by the social movements of the 1960s and 1970s against the more orthodox endorsement of *Capital*), describes the system of industrial machines as a horrific monster of metal and flesh:

The production process has ceased to be a labor process in the sense of a process dominated by labor as its governing unity. Labor appears, rather, merely as a conscious organ, scattered among the individual living workers at numerous points of the mechanical system; subsumed under the total process of the machinery itself, as itself only a link of the system, whose unity exists not in the living workers, but rather in the living, (active) machinery, which confronts his individual, insignificant doings as a mighty organism.<sup>31</sup>

The Italian autonomists extracted from these pages the notion of the “general intellect” as “the ensemble of knowledge . . . which constitute[s] the epicenter of social production.”<sup>32</sup> Unlike Marx’s original formulation, however, the autonomists eschewed the modernist imagery of the general intellect as a hellish machine. They claimed that Marx completely identified the general intellect (or knowledge as the principal productive force) with fixed capital (the machine) and thus neglected to account for the fact that the general intellect cannot exist independently of the concrete subjects who mediate the articulation of the machines with each other. The general intellect is an articulation of fixed capital (machines) *and* living labor (the workers). If we see the Internet, and computer networks in general, as the latest machines – the latest manifestation of fixed capital – then it won’t be difficult to imagine the general intellect as being well and alive today.

The autonomists, however, did not stop at describing the general intellect as an assemblage of humans and machines at the heart of postindustrial production. If this were the case, the Marxian monster of metal and flesh would just be updated to that of a world-spanning network where computers use human beings as a way to allow the system of machinery (and therefore capitalist production) to function. The visual power of the Marxian description is updated by the cyberpunk snapshots of the immobile bodies of the hackers, electrodes like umbilical cords connecting them to the matrix, appendixes to a living, all-powerful cyberspace. Beyond the special effects bonanza, the box-office success of *The Matrix* validates the popularity of the paranoid interpretation of this mutation.

To the humanism implicit in this description, the autonomists have opposed the notion of a “mass intellectuality,” living labor in its function as the determining articulation of the general intellect. Mass intellectuality – as an ensemble, as a social body – “is the repository of the indivisible knowledges of living subjects and of their linguistic cooperation. . . . An important part of knowledge cannot be deposited in machines, but . . . it must come into being as the direct interaction of the labor force.”<sup>33</sup> As Virno emphasizes, mass intellectuality is not about the various roles of knowledge workers, but is a “*quality* and a distinctive sign of the *whole* social labor force in the post-Fordist era.”<sup>34</sup>

The pervasiveness of the collective intelligence within both the managerial literature and Marxist theory could be seen as the result of a common intuition about the quality of labor in informed societies. Knowledge labor is inherently *collective*, it is always the result of a collective and social production of knowledge.<sup>35</sup> Capital’s problem is how to extract as much value as possible (in the autonomists’ jargon, to “valorize”) out of this abundant, and yet slightly intractable, terrain.

Collective knowledge work, then, is not about those who work in the knowledge industry. But it is also not about employment. The acknowledgment of the collective aspect of labor implies a rejection of the equivalence between labor and employment, which was already stated by Marx and further emphasized by feminism and the post-Gramscian autonomy.<sup>36</sup> Labor is not equivalent to waged labor. Such an understanding might help us to reject some of the hideous rhetoric of unemployment which turns the unemployed person into the object of much patronizing, pushing, and nudging from national governments in industrialized countries. (Accept any available work or else. . . .) Often the unemployed are such only in name, in reality being the life-blood of the difficult economy of “under-the-table,” badly paid work, some of which also goes into the new media industry.<sup>37</sup> To emphasize how labor is not equivalent to employment also means to acknowledge how important free affective and cultural labor is to the media industry, old and new.

## EPHEMERAL COMMODITIES AND FREE LABOR

There is a continuity, and a break, between older media and new media in terms of their relationship to cultural and affective labor. The continuity seems to lie in their common

reliance on their public/users as productive subjects. The difference lies both in the mode of production and in the ways in which power/knowledge works in the two types. In spite of different national histories (some of which stress public service more than others), the television industry, for example, is relatively conservative: writers, producers, performers, managers, and technicians have definite roles within an industry still run by a few established players. The historical legacy of television as a technology for the construction of national identities also means that television is somehow always held more publicly accountable.

This does not mean that old media do not draw on free labor, on the contrary. Television and print media, for example, make abundant use of the free labor of their audiences/readers, but they also tend to structure the latter's contribution much more strictly, both in terms of economic organization and moralistic judgment. The price to pay for all those real-life TV experiences is usually a heavy dose of moralistic scare-mongering: criminals are running amok on the freeways and must be stopped by tough police action; wild teenagers lack self-esteem and need tough love. If this does not happen on the Internet, why is it then that the Internet is not the happy island of decentered, dispersed, and pleasurable cultural production that its apologists claimed?

The most obvious answer to such questions came spontaneously to the early Internet users who blamed it on the commercialization of the Internet. E-commerce and the progressive privatization were blamed for disrupting the free economy of the Internet, an economy of exchange that Richard Barbrook described as a "gift economy."<sup>38</sup> Indeed maybe the Internet could have been a different place than what it is now. However, it is almost unthinkable that capitalism could stay forever outside of the network, a mode of communication that is fundamental to its own organizational structure.

The outcome of the explicit interface between capital and the Internet is a digital economy that manifests all the signs of an acceleration of the capitalist logic of production. It might be that the Internet has not stabilized yet, but it seems undeniable that the digital economy is the fastest and most visible zone of production within late capitalist societies. New products and new trends succeed each other at anxiety-inducing pace. After all, this is a business where you need to replace your equipment/knowledges and possibly staff every year or so.

At some point, the speed of the digital economy, its accelerated rhythms of obsolescence, and its reliance on (mostly) "immaterial" products seemed to fit in with the postmodern intuition about the changed status of the commodities whose essence was said to be *meaning* (or lack of) rather than *labor* (as if the two could be separable).<sup>39</sup> The recurrent complaint that the Internet contributes to the disappearance of reality is then based *both* in humanistic concerns about "real life" *and* in the postmodern nihilism of the recombinant commodity.<sup>40</sup> Hyperreality confirms the humanist nightmare of a society without humanity, the culmination of a progressive taking over of the realm of representation. Commodities on the Net are not material and are excessive (there is too much of it, too many websites, too much clutter and noise) with relation to the limits of "real" social needs.

It is possible, however, that the disappearance of the commodity is not a material disappearance but its visible subordination to the quality of labor behind it. In this sense the commodity does not disappear as such; rather, it becomes increasingly ephemeral, its duration becomes compressed, and it becomes more of a process than a finished product. The role of continuous, creative, innovative labor as the ground of market value is crucial to the digital economy. The process of valorization (the production of monetary value) happens by foregrounding the quality of the labor that literally animates the commodity.

In my opinion, the digital economy challenges the postmodern assumption that labor disappears while the commodity takes on and dissolves all meaning. In particular, the Internet is about the extraction of value out of continuous, updateable work, and it is extremely labor intensive. It is not enough to produce a good website, you need to update it continuously to maintain interest in it and fight off obsolescence. Furthermore, you need updateable equipment (the general intellect is always an assemblage of humans and their machines), in its turn propelled by the intense collective labor of programmers, designers, and workers. It is as if the acceleration of production has pushed to the point where commodities, literally, turn into translucent objects. Commodities do not so much disappear as become more transparent, showing throughout their reliance on the labor that produces and sustains them. It is the labor of the designers and programmers that shows through a successful website, and it is the spectacle of that labor changing its product that keeps the users coming back. The commodity, then, is only as good as the labor that goes into it.

As a consequence, the sustainability of the Internet as a medium depends on massive amounts of labor (which is not equivalent to employment, as we said), only some of which is hypercompensated by the capricious logic of venture capitalism. Of the incredible amount of labor that sustains the Internet as a whole (from mailing list traffic to websites to infrastructural questions), we can guess that a substantial amount of it is still “free labor.”

Free labor, however, is not necessarily exploited labor. Within the early virtual communities, we are told, labor was really free: the labor of building a community was not compensated by great financial rewards (it was therefore “free,” unpaid), but it was also willingly conceded in exchange for the pleasures of communication and exchange (it was therefore “free,” pleasurable, not imposed). In answer to members’ requests, information was quickly posted and shared with a lack of mediation that the early Netizens did not fail to appreciate. Howard Rheingold’s book, somehow unfairly accused of middle-class complacency, is the most well-known account of the good old times of the old Internet, before the Net-tourist overcame the Net-pioneer.<sup>41</sup>

The free labor that sustains the Internet is acknowledged within many different sections of the digital literature. In spite of the volatile nature of the Internet economy (which yesterday was about community, today is about portals, and tomorrow who knows what), the notion of users’ labor maintains an ideological and material centrality that runs consistently throughout the turbulent succession of Internet fads.

Commentators who would normally disagree, such as Howard Rheingold and Richard Hudson, concur on one thing: the best website, the best way to stay visible and thriving on the Web, is to turn your site into a space that is not only accessed, but somehow built by its users.<sup>42</sup> Users keep a site alive through their labor, the cumulative hours of accessing the site (thus generating advertising), writing messages, participating in conversations, and sometimes making the jump to collaborators. Out of the fifteen thousand volunteers that keep AOL running, only a handful turned against it, while the others stayed on. Such a feature seems endemic to the Internet in ways that can be worked on by commercialization, but not substantially altered. The “open source” movement, which relies on the free labor of Internet tinkers, is further evidence of this structural trend within the digital economy.

It is an interesting feature of the Internet debate (and evidence, somehow, of its masculine bias) that users’ labor has attracted more attention in the case of the open source movement than in that of mailing lists and websites. This betrays the persistence of an attachment to masculine understandings of labor within the digital economy: writing an operating system is still more worthy of attention than just chatting for free for AOL. This in spite of the fact that in 1996 at the peak of the volunteer moment, over thirty thousand “community leaders” were helping AOL to generate at least \$7 million a month.<sup>43</sup> Still, the open source movement has drawn much more positive attention than the more diffuse user labor described above. It is worth exploring not because I believe that it will outlast “portals” or “virtual communities” as the latest buzzword, but because of the debates it has provoked and its relation to the digital economy at large.

The open source movement is a variation of the old tradition of shareware and freeware software which substantially contributed to the technical development of the Internet. Freeware software is freely distributed and does not even request a reward from its users. Shareware software is distributed freely, but implies a “moral” obligation for the user to forward a small sum to the producer in order to sustain the shareware movement as an alternative economic model to the copyrighted software of giants such as Microsoft. *Open source* “refers to a model of software development in which the underlying code of a program – the source code, a.k.a. the crown jewels – is by definition made freely available to the general public for modification, alteration, and endless redistribution.”<sup>44</sup>

Far from being an idealistic, minoritarian practice, the open source movement has attracted much media and financial attention. Apache, an open source Web server, is the “Web-server program of choice for more than half of all publicly accessible Web servers.”<sup>45</sup> In 1999, open source conventions are anxiously attended by venture capitalists, who have been informed by the digerati that the open source movement is a necessity “because you must go open-source to get access to the benefits of the open-source development community – the near-instantaneous bug-fixes, the distributed intellectual resources of the Net, the increasingly large open-source code base.”<sup>46</sup> Open source companies such as Cygnus have convinced the market that you do not

need to be proprietary about source codes to make a profit: the code might be free, but tech support, packaging, installation software, regular upgrades, office applications, and hardware are not.

In 1998, when Netscape went “open source” and invited the computer tinkers and hobbyists to look at the code of its new browser, fix the bugs, improve the package, and redistribute it, specialized mailing lists exchanged opinions about its implications.<sup>47</sup> Netscape’s move rekindled the debate about the peculiar nature of the digital economy. Was it to be read as being in the tradition of the Internet “gift economy”? Or was digital capital hijacking the open source movement exactly against that tradition? Richard Barbrook saluted Netscape’s move as a sign of the power intrinsic in the architecture of the medium:

The technical and social structure of the Net has been developed to encourage open cooperation among its participants. As an everyday activity, users are building the system together. Engaged in “interactive creativity,” they send emails, take part in list-servers, contribute to newsgroups, participate within online conferences and produce websites. . . . Lacking copyright protection, information can be freely adapted to suit the users’ needs. Within the hi-tech gift economy, people successfully work together through “. . . an open social process involving evaluation, comparison and collaboration.”<sup>48</sup>

John Horvarth, however, did not share this opinion. The “free stuff” offered around the Net, he argued, “is either a product that gets you hooked on to another one or makes you just consume more time on the net. After all, the goal of the access people and telecoms is to have users spend as much time on the net as possible, regardless of what they are doing. The objective is to have you consume bandwidth.”<sup>49</sup> Far from proving the persistence of the Internet gift economy, Horvarth claimed, Netscape’s move is a direct threat to those independent producers for whom shareware and freeware have been a way of surviving exactly those “big boys” that Netscape represents:

Freeware and shareware are the means by which small producers, many of them individuals, were able to offset somewhat the bulldozing effects of the big boys. And now the bulldozers are headed straight for this arena.

As for Netscape [*sic*], such a move makes good business sense and spells trouble for workers in the field of software development. The company had a poor last quarter in 1997 and was already hinting at job cuts. Well, what better way to shed staff by having your product taken further by the freeware people, having code-dabbling hobbyists fix and further develop your product? The question for Netscape now is how to tame the freeware beast so that profits are secured.<sup>50</sup>

Although it is tempting to stake the evidence of Netscape’s layoffs against the optimism of Barbrook’s gift economy, there might be more productive ways of looking at

the increasingly tight relationship between an “idealistic” movement such as open source and the current venture mania for open source companies.<sup>51</sup> Rather than representing a moment of incorporation of a previously authentic moment, the open source question demonstrates the overreliance of the digital economy as such on free labor, both in the sense of not financially rewarded and willingly given. This includes AOL community leaders, the open source programmers, the amateur Web designers, mailing list editors, and the NetSlaves willing to “work for cappuccinos” just for the excitement and the dubious promises of digital work.<sup>52</sup>

Such a reliance, almost a dependency, is part of larger mechanisms of capitalist extraction of value which are fundamental to late capitalism as a whole. That is, such processes are not created outside capital and then reappropriated by capital, but are the results of a complex history where the relation between labor and capital is mutually constitutive, entangled and crucially forged during the crisis of Fordism. Free labor is a desire of labor immanent to late capitalism, and late capitalism is the field that both sustains free labor *and* exhausts it. It exhausts it by subtracting selectively but widely the means through which that labor can reproduce itself: from the burnout syndromes of Internet start-ups to underretribution and exploitation in the cultural economy at large. Late capitalism does not appropriate anything: it nurtures, exploits, and exhausts its labor force and its cultural and affective production. In this sense, it is technically impossible to separate neatly the digital economy of the Net from the larger network economy of late capitalism. Especially since 1994, the Internet is always and simultaneously a gift economy *and* an advanced capitalist economy. The mistake of the neoliberals (as exemplified by the *Wired* group), is to mistake this coexistence for a benign, unproblematic equivalence.

As I stated before, these processes are far from being confined to the most self-conscious laborers of the digital economy. They are part of a diffuse cultural economy which operates throughout the Internet and beyond. The passage from the pioneeristic days of the Internet to its “venture” days does not seem to have affected these mechanisms, only intensified them and connected them to financial capital. Nowhere is this more evident than in the recent development of the World Wide Web.

## ENTER THE NEW WEB

In the winter of 1999, in what sounds like another of its resounding, short-lived claims, *Wired* magazine announces that the old Web is dead: “The Old Web was a place where the unemployed, the dreamy, and the iconoclastic went to reinvent themselves . . . The New Web isn’t about dabbling in what you don’t know and failing – it’s about preparing seriously for the day when television and Web content are delivered over the same digital networks.”<sup>53</sup>

The new Web is made of the big players, but also of new ways to make the audience work. In the “new Web,” after the pioneering days, television and the Web con-

verge in the one thing they have in common: their reliance on their audiences/users as providers of the cultural labor that goes under the label of “real-life stories.” Gerry Laybourne, executive of the Web-based media company Oxygen, thinks of a hypothetical show called *What Are They Thinking?* a reality-based sketch comedy based on stories posted on the Web, because “funny things happen in our lives everyday.”<sup>54</sup> As Bayers also adds, “until it’s produced, the line separating that concept from more puerile fare dismissed by Gerry, like *America’s Funniest*, is hard to see.”<sup>55</sup>

The difference between the puerile fare of *America’s Funniest* and user-based content seems to lie not so much in the more serious nature of the “new Web” as compared to the vilified output of television’s “people shows” (a term that includes docusoaps, docudramas, and talk shows). From an abstract point of view there is no difference between the ways in which people shows rely on the inventiveness of their audiences and the website reliance on users’ input. People shows rely on the activity (even amidst the most shocking sleaze) of their audience and willing participants to a much larger extent than any other television programs. In a sense, they manage the impossible, creating monetary value out of the most reluctant members of the postmodern cultural economy: those who do not produce marketable style, who are not qualified enough to enter the fast world of the knowledge economy, are converted into monetary value through their capacity to perform their misery.

When compared to the cultural and affective production on the Internet, people shows also seem to embody a different logic of relation between capitalism (the media conglomerates that produce and distribute such shows) and its labor force – the beguiled, dysfunctional citizens of the underdeveloped North. Within people’s shows, the valorization of the audience as labor and spectacle always happens somehow within a power/knowledge nexus that does not allow the *immediate* valorization of the talk show participants: you cannot just put a Jerry Springer guest on TV on her own to tell her story with no mediation (indeed, that would look too much like the discredited access slots of public service broadcasting). Between the talk show guest and the apparatus of valorization intervenes a series of knowledges that normalize the dysfunctional subjects through a moral or therapeutic discourse and a more traditional institutional organization of production. So after the performance, the guest must be advised, patronized, questioned, and often bullied by the audience and the host, all in the name of a perfunctory, normalizing morality.

People shows also belong to a different economy of scale: although there are more and more of them, they are still relatively few when compared to the millions of pages on the Web. It is as if the centralized organization of the traditional media does not let them turn people’s productions into pure monetary value. People shows must have morals, even as those morals are shattered by the overflowing performances of their subjects.

Within the Internet, however, this process of channeling and adjudicating (responsibilities, duties, and rights) is dispersed to the point where practically anything is tolerated (sodomasochism, bestiality, fetishism, and plain nerdism are not targeted, at least

within the Internet, as sites that need to be disciplined or explained away). The qualitative difference between people's shows and a successful website, then, does not lie in the latter's democratic tendency as opposed to the former's exploitative nature. It lies in the operation, within people's shows, of moral discursive mechanisms of territorialization, the application of a morality that the "excessive" abundance of material on the Internet renders redundant and even more irrelevant. The digital economy cares only tangentially about morality. What it really cares about is an abundance of production, an immediate interface with cultural and technical labor whose result is a diffuse, non-dialectical contradiction.

## CONCLUSION

My hypothesis that free labor is structural to the late capitalist cultural economy is not meant to offer the reader a totalizing understanding of the cultural economy of new and old media. However, it does originate from a need to think beyond the categories that structure much Net debate these days, a process necessarily entailing a good deal of abstraction.

In particular, I have started from the opposition between the Internet as capital and the Internet as the anticapital. This opposition is much more challenging than the easy technophobia/technophilia debate. The question is not so much whether to love or hate technology, but an attempt to understand whether the Internet embodies a continuation of capital or a break with it. As I have argued in this essay, it does neither. It is rather a mutation that is totally immanent to late capitalism, not so much a break as an intensification, and therefore a mutation, of a widespread cultural and economic logic.

In this context, it is not enough just to demystify the Internet as the latest capitalist machination against labor. I have tried to map a different route, an immanent, flat, and yet power-sensitive model of the relationship between labor, politics, and culture. Obviously I owe much of the inspiration for this model to the French/Italian connection, to that line of thought formed by the exchanges between the Foucault/Deleuze/Guattari axis and the Italian Autonomy (Antonio Negri, Maurizio Lazzarato, Paolo Virno, Franco Berardi), a field of exchanges formed through political struggle, exile, and political prosecution right at the heart of the postindustrial society (Italy after all has provided the model of a post-Fordist economy for the influential flexible specialization school). On the other hand, it has been within a praxis informed by the cybernetic intelligence of English-speaking mailing lists and websites that this line of thought has acquired its concrete materiality.

This return to immanence, that is, to a flattening out of social, cultural, and political connections, has important consequences for me. As Negri, Haraway, and Deleuze and Guattari have consistently argued, the demolition of the modernist ontology of the Cartesian subject does not have to produce the relativism of the most cynical examples of postmodern theory. The loss of transcendence, of external principles which organize

the social world from the outside, does not have to end up in nihilism, a loss of strategies for dealing with power.

Such strategies cannot be conjured by critical theory. As the spectacular failure of the Italian Autonomy reveals,<sup>56</sup> the purpose of critical theory is not to elaborate strategies that then can be used to direct social change. On the contrary, as the tradition of cultural studies has less explicitly argued, it is about working on what already exists, on the lines established by a cultural and material activity that is already happening. In this sense this essay does not so much propose a theory as it identifies a *tendency* that already exists in the Internet literature and online exchanges. This tendency is not the truth of the digital economy; it is necessarily partial just as it tries to hold to the need for an overall perspective on an immensely complex range of cultural and economic phenomena. Rather than retracing the holy truths of Marxism on the changing body of late capital, free labor embraces some crucial contradictions without lamenting, celebrating, denying, or synthesizing a complex condition. It is, then, not so much about truth-values as about relevance, the capacity to capture a moment and contribute to the ongoing constitution of a nonunified collective intelligence outside and in between the blind alleys of the silicon age.

## NOTES

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1. Lisa Margonelli, “Inside AOL’s ‘Cyber-Sweatshop,’” *Wired*, October 1999, 138.

2. See Paolo Virno and Michael Hardt, *Radical Thought in Italy: A Potential Politics* (Minneapolis: University of Minnesota Press, 1996); and Toni Negri, *The Politics of Subversion: A Manifesto for the Twenty-first Century* (Cambridge: Polity, 1989) and *Marx beyond Marx: Lessons on the “Grundrisse”* (New York: Autonomedia, 1991). The quote is from Negri, *Politics of Subversion*, 92.

3. Donna Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (London: Routledge, 1991), 159.

4. Paul Gilroy, *The Black Atlantic: Modernity and Double Consciousness* (London and New York: Verso, 1993), 40.

5. Manuel Castells, *The Rise of the Network Society* (Cambridge, Mass.: Blackwell, 1996), 395.

6. In discussing these developments, I will also draw on debates circulating across Internet sites. Online debates in, for example, *nettime*, *telepolis*, *rhizome* and *c-theory*, are one of the manifestations of the surplus value engendered by the digital economy, a hyper-production that can only be partly reabsorbed by capital.

7. See Richard Barbrook, “The Digital Economy,” (posted to *nettime* on 17 June 1997; also at [www.nettime.org](http://www.nettime.org)); “The High-Tech Gift Economy,” in *Readme! Filtered by Nettime: ASCII Culture and the Revenge of Knowledge*, ed. Josephine Bosma et al. (Brooklyn, N.Y.: Autonomedia, 1999), 132–38. Also see Anonymous, “The Digital Artisan Manifesto” (posted to *nettime* on 15 May 1997).

8. Barbrook, “The High-Tech Gift Economy,” 135.

9. *Ibid.*, 137

10. Don Tapscott, *The Digital Economy* (New York: McGraw-Hill, 1996), xiii.

11. *Ibid.*, 35; emphasis added.

12. Ibid., 48.

13. For a discussion of the independent music industry and its relation to corporate culture see David Hesmondalgh, "Indie: The Aesthetics and Institutional Politics of a Popular Music Genre," *Cultural Studies* 13 (January 1999): 34–61. Angela McRobbie has also studied a similar phenomenon in the fashion and design industry in *British Fashion Design: Rag Trade or Image Industry?* (London: Routledge, 1998).

14. See the challenging section on work in the high-tech industry in Bosma et al., *Readme!*

15. Martin Kenney, "Value-Creation in the Late Twentieth Century: The Rise of the Knowledge Worker," in *Cutting Edge: Technology, Information Capitalism and Social Revolution*, ed. Jim Davis, Thomas Hirsch, and Michael Stack (London: Verso, 1997), 93; also see in the same anthology Tessa Morris-Suzuki, "Capitalism in the Computer Age," 57–71.

16. See Darko Suvin, "On Gibson and Cyberpunk SF," in *Storming the Reality Studio*, ed. Larry McCaffery (London: Durham University Press, 1991), 349–65; and Stanley Aronowitz and William DiFazio, *The Jobless Future: Sci-Tech and the Dogma of Work* (Minneapolis: University of Minnesota Press, 1994). According to Andrew Clement, information technologies were introduced as extensions of Taylorist techniques of scientific management to middle-level, rather than clerical, employees. Such technologies responded to a managerial need for efficient ways to manage intellectual labor. Clement, however, seems to connect this scientific management to the workstation, while he is ready to admit that personal computers introduce an element of autonomy much disliked by management. See Andrew Clement, "Office Automation and the Technical Control of Information Workers," in *The Political Economy of Information*, ed. Vincent Mosco and Janet Wasko (Madison: University of Wisconsin Press, 1988).

17. Barbrook, "The High-Tech Gift Economy."

18. See Kevin Robins, "Cyberspace or the World We Live In," in *Fractal Media: New Media in Social Context*, ed. Jon Dovey (London: Lawrence and Wishart, 1996).

19. See Frank Webster, *Theories of the Information Society* (London and New York: Routledge, 1995).

20. Maurizio Lazzarato, "Immaterial Labor," in *Marxism beyond Marxism*, ed. Saree Makdisi, Cesare Casarino, and Rebecca E. Karl for the Polygraph collective (London: Routledge, 1996), 133.

21. The Criminal Justice Act (CJA) was popularly perceived as an antirave legislation, and most of the campaign against it was organized around the "right to party." However, the most devastating effects of the CJA have struck the neotribal, nomadic camps, basically decimated or forced to move to Ireland in the process. See Andrea Natella and Serena Tinari, eds., *Rave Off* (Rome: Castelvecchi, 1996).

22. Lazzarato, "Immaterial Labor," 136.

23. In the two volumes of *Capitalism and Schizophrenia*, Gilles Deleuze and Félix Guattari described the process by which capital unsettles and resettles bodies and cultures as a movement of "decoding" ruled by "axiomatisation." Decoding is the process through which older cultural limits are displaced and removed as with older, local cultures during modernization; the flows of culture and capital unleashed by the decoding are then channeled into a process of axiomatization, an abstract moment of conversion into money and profit. The decoding forces of global capitalism have then opened up the possibilities of immaterial labor. See Gilles Deleuze and Félix Guattari, *Anti-Oedipus: Capitalism and Schizophrenia* (London: Athlone, 1984); and *A Thousand Plateaus: Capitalism and Schizophrenia* (London: Athlone, 1988).

24. See Franco Berardi (Bifo), *La nefasta utopia di potere operaio* (Rome: Castelvecchi/DeriveApprodi, 1998), 43.

25. See Kevin Kelly, *Out of Control* (Reading, Mass.: Addison Wesley, 1994).

26. Eugene Provenzo, foreword to Pierre Levy, *Collective Intelligence: Mankind's Emerging World in Cyberspace* (New York: Plenum, 1995), viii.

27. Levy, *Collective Intelligence*, 13.

28. Ibid., 1.

29. See Little Red Henski, "Insider Report from UUNET" in Bosma et al., *Readme!* 189–91.

30. Paolo Virno, "Notes on the General Intellect," in *Marxism beyond Marxism*, 266.

31. Karl Marx, *Grundrisse* (London: Penguin, 1973), 693.
32. Paolo Virno, "Notes on the General Intellect," in *Marxism beyond Marxism*, 266.
33. *Ibid.*, 270.
34. *Ibid.*, 271.
35. See Lazzarato, "New Forms of Production," in Bosma et al., *Readme!* 159–66; and Tessa Morris-Suzuki, "Robots and Capitalism," in *Cutting Edge*, 13–27.
36. See Toni Negri, "Back to the Future," in Bosma et al., *Readme!* 181–86; and Haraway, *Simians, Cyborgs, Women*.
37. Andrew Ross, *Real Love: In Pursuit of Cultural Justice* (London: Routledge, 1998).
38. See Barbrook, "The High-Tech Gift Economy."
39. The work of Jean-François Lyotard in *The Postmodern Condition* is mainly concerned with *knowledge*, rather than intellectual labor, but still provides a useful conceptualization of the reorganization of labor within the productive structures of late capitalism. See Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi (Minneapolis: University of Minnesota Press, 1989).
40. See Arthur Kroker and Michael A. Weinstein, *Data Trash: The Theory of the Virtual Class* (New York: St. Martin's, 1994).
41. See Howard Rheingold, *The Virtual Community: Homesteading on the Electronic Frontier* (New York: Harper Perennials, 1994).
42. See Howard Rheingold, "My Experience with Electric Minds," in Bosma et al., *Readme!* 147–50; also David Hudson, *Rewired: A Brief (and Opinionated) Net History* (Indianapolis: Macmillan Technical Publishing, 1997). The expansion of the Net is based on different types of producers adopting different strategies of income generation: some might use more traditional types of financial support (grants, divisions of the public sector, in-house Internet divisions within traditional media companies, businesses' Web pages which are paid as with traditional forms of advertising); some might generate interest in one's page and then sell the user's profile or advertising space (freelance Web production); or some might use innovative strategies of valorization, such as various types of e-commerce.
43. See Margonelli, "Inside AOL's 'Cyber-Sweatshop.'"
44. Andrew Leonard, "Open Season," in *Wired*, May 1999, 140. Open source harks back to the specific competencies embodied by Internet users in its pre-1994 days. When most Net users were computer experts, the software structure of the medium was developed by way of a continuous interaction of different technical skills. This tradition still survives in institutions like the Internet Engineering Task Force (IETF), which is responsible for a number of important decisions about the technical infrastructure of the Net. Although the IETF is subordinated to a number of professional committees, it has important responsibilities and is also open to anybody who wants to join. The freeware movement has a long tradition, but it has also recently been divided by the polemics between the free software or "copyleft" movement and the open source movement, which is more of a pragmatic attempt to make freeware a business proposition. See debates online at [www.gnu.org](http://www.gnu.org) and [www.salonmag.com](http://www.salonmag.com).
45. Leonard, "Open Season."
46. *Ibid.*, 142.
47. It is an established pattern of the computer industry, in fact, that you might have to give away your product if you want to reap the benefits later on. As John Perry Barlow has remarked, "Familiarity is an important asset in the world of information. It may often be the case that the best thing you can do to raise demand for your product is to give it away." See John Perry Barlow, "Selling Wine without Bottles: The Economy of Mind on the Global Net," in *High Noon on the Electronic Frontier: Conceptual Issues in Cyberspace*, ed. Peter Ludlow (Cambridge: MIT Press, 1996), 23. Apple started it by giving free computers to schools, an action that did not determine, but certainly influenced, the subsequent stubborn presence of Apple computers within education; MS-Dos came in for free with IBM computers.
48. Barbrook, "The High-Tech Gift Economy," 135–36.
49. John Horwarth, "Freeware Capitalism," posted on *nettime*, 5 February 1998.
50. *Ibid.*

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51. Netscape started like a lot of other computer companies: its founder, Marc Andreessen, was part of the original research group who developed the structure of the World Wide Web at the CERN laboratory, in Geneva. As with many successful computer entrepreneurs, he developed the browser as an offshoot of the original, state-funded research and soon started his own company. Netscape was also the first company to exceed the economic processes of the computer industry, inasmuch as it was the first successful company to set up shop on the Net itself. As such, Netscape exemplifies some of the problems that even the computer industry meets on the Net and constitutes a good starting point to assess some of the common claims about the digital economy.

52. Ross, *Real Love*.

53. Chip Bayers, "Push Comes to Show," in *Wired*, February 1999, 113.

54. *Ibid.*, 156.

55. *Ibid.*

56. Berardi, *La nefasta utopia*.

# Sim Capital: General Intellect, World Market, Species Being and the Video Game

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*Nick Dyer-Witthford*

## 1. INTRODUCTION

Today's headlines, "NASDAQ Drop Leads Global Market Fall," promises a definitive answer to the question as to whether "digital cultural objects" are "assimilable within the capitalist commodity form": "no."<sup>1</sup> Or perhaps just "not as easily as was thought last year." Raymond Williams once complained that bourgeois theorists always construed short-term fluctuations as long-term trends. None of us would want to be guilty of *that*. But even exercising due prudence, it seems fair to say the recent misadventures of a dot.com sector heavily involved in "digital cultural objects" have revealed cybercapitalism as more problematic than it appeared in the halcyon days of the new economy. I approach these issues through three large concepts, all mutated marginalia of Marx—"the world market," "general intellect," and "species being"—applied to an examination of one digital cultural object, the video game.

Some definitions may be useful. The "world market" is simply planetary capitalism, *a.k.a.* "globalization," a system of generalized commodity exchange now operating with unprecedented geographical reach, speed, dominion and nomadism.<sup>2</sup>

"General intellect" is introduced by Marx in *Grundrisse*, where he prophesies that at a certain moment in capitalism's development of productive forces the direct expenditure of labour power will cease to be the most important factor in the creation of use-values.<sup>3</sup> Wealth will instead depend on the forces of social knowledge—the "development of the general powers of the human head." This will manifest in technological innovation and the increasing importance of machinery—"fixed capital." Marx points to two technological systems in particular as signs of the activation of general intellect. One is automation, the other the network of transport and communication devices that achieve the famous "annihilation of space by time."

Read sympathetically, “general intellect” can be seen as a prescient figurative glimpse of today’s knowledge economy, with production teams, innovation millieux and university-corporate research partnerships yielding the “fixed capital” of robotic factories and global computer networks. The dialectical prediction of “classical” Marxism was that “general intellect,” though generated by the world market, would destroy and supersede it. Technologies of automation and communication, by reducing direct labor-time and thoroughly socializing production, would render wage labour and private ownership obsolete, so that “capital . . . works towards its own dissolution.”<sup>4</sup> The assertion of neoliberalism, although phrased in very different terms, is that the world market is completely compatible with general intellect. The concept of “the new economy” — is one of a marriage made in heaven between high-technology systems and the commodity form, a perfect union of Net and Market: “friction free capitalism.” (au: end of graf?)

In contrast to both positions, the proposal of this paper is that the congruence of general intellect and world market, or of the information society and global capital, is partial, incomplete and contested. It follows a line of argument developed by Antonio Negri, Paolo Virno, Michael Hardt, and Maurizio Lazaratto, and others who suggest that, in the consideration of “general intellect” the crucial issue it is not just the accumulation of the “fixed capital” withof advanced machines.<sup>5</sup> Rather, it is the variable potential of the human subjectivity that continues —to be critical for the creation and operation of this high technology apparatus—although often as indirect and heavily mediated, rather than direct, hands-on, labor. This subjective element they variously term “mass intellect” or “immaterial labour.”<sup>6</sup> It is the human “know-how”—technical, cultural, linguistic, and ethical—that supports the operation of the high-tech economy, especially evident in the communicational and aesthetic aspects of high-tech commodity production. The question is how far capital can contain what Jean-Marie Vincent calls “this plural, multiform constantly mutating intelligence” in the structures of the world market.<sup>7</sup>

What is at stake in the development of “general intellect” is nothing less than the trajectory of species being. “Species being” is the term Marx uses refers to humanity’s self-recognition as a natural species with the capacity to transform itself through conscious social activity.<sup>8</sup> In the era of general intellect the application of social knowledge to production make this issue urgent and concrete; e.g. the Human Genome Project. Given this context, the recent revival of the concept of species being by authors such as David Harvey and Gayatri Spivak, rather than constituting a reversion to a much-reviled “Marxist humanism,” marks a crucial consideration about the collective control and direction of a techno-scientific apparatus capable of operationalizing a whole series of post-human or sub-human conditions.<sup>9</sup> Alienation takes on a whole new dimension when it reaches up to the creation of “alien” —non-naturally occurring —life forms, and when the cut and paste biology of gene splicing and xenotransplants makes the body itself tends toward the status of “digital cultural object.”

The specific example on which I bring these large concepts to bear, the video game (more properly, video and computer games, which together make up the “inter-

active play” business) may seem too slender to bear their weight. But the interactive game is a—perhaps even *the*—exemplary “digital cultural object” of cybercapitalism. Three decades have seen its transformation from whimsical invention of bored Pentagon researchers into the fastest expanding sector of the entertainment industry. The US interactive-game business is now larger than the Hollywood box-office.<sup>10</sup> Counting both console and computers, over half of North American households, and some 80% of those with children, have a game playing system. Over one-third of consumer software sales in the US are games. Business analysts scan the virtual communities coalescing around on-line games such as *Quake*, *Ultima* and *Everquest* for e-commerce models. In many ways, interactive game industries have been the poster boys of information capitalism’s “new economy,” for, as Nicholas Garnham notes, they “are in fact the first companies . . . to have created a successful and global multimedia product market.”<sup>11</sup>

The interactive game reveals two sides of the world market / general intellect interface. It displays the dazzling success of cybercapitalism in integrating general intellect into the structures of the world market. It simultaneously demonstrates the traumas and limits of this process. These ambivalences, though in some respects particular to the game industry, also disclose more general dynamics of the “dot.com” meltdown. In the last section of the paper, I ask whether interactive gaming offers us a ny glimpses atof ways of organizing the activities of general intellect *other* than through the world-market. This , a question which assumes a particular cogency when we see how video games mirror contemporary dilemmas about issues of species -being.

### THE IDEAL COMMODITY:

If we look first at the success of capital in enclosing general intellect, one entry point is through the Regulation School’s account of Fordist and post-Fordist regimes of accumulation. In their account, Fordism is the mass production, mass consumption, Keynesian constellation of capital’s post-war Golden Years, that fell apart in the 1970s; post-Fordism an emergent synchronization of digitized production systems, segmented and transnationalized markets, and neoliberal economic policies. The literature on post-Fordism can be seen as an analysis of capitalism’s galvanization and enclosure of the new work forms and technologies of “general intellect.” But while Regulation School theorists tend to assume this project will succeed, those who talk of “general intellect” see the outcome as less certain.

Martin Lee suggests that that each regime of accumulation has an “*ideal-type* commodity form”—one that reflects “the whole social organization of capitalism at any historical and geographical point in its development.”<sup>12</sup> Thus, for Fordism, the ideal-type commodities were “standardized housing and the car,”<sup>13</sup> Cars and houses were imprinted with the stamp of mechanical, industrial production processes; sustained core industrial sectors of the Fordist economy; and arrayed around themselves a whole set of

social practices and values vital to the regime. They incarnated the “sense of fixity, permanence and sheer physical presence” characteristic of Fordist consumer culture.<sup>14</sup> If post-Fordism is a major shift in capitalism, we should, Lee says, expect to see this reflected in a different ideal-type commodity-form.<sup>15</sup> Without specifying particular products, he vaguely, cites “high-tech commodities” and services such as “information, data, and access to means of communication.”<sup>16</sup>

I nominate the video game as an “ideal-type commodity” for post-Fordism, embodying its most powerful economic, social, and cultural tendencies. To make this case, I schematically unfold the commodification of interactive games along the length of an expanded model of the circuit of capital. This includes the moments of production (where commodities are made, and surplus value created); consumption (where commodities are purchased, and surplus value realized); circulation (where the passage between production and consumption is enabled by operations of marketing, retailing and distribution); social reproduction (where subjects are prepared and trained for their positions as workers and consumers); the reproduction—or non-reproduction—of nature (where raw materials are extracted from the environment and wastes returned to it); and spatial expansion (whereby the scope of all the preceding operations is territorially enlarged).<sup>17</sup>

In production, interactive gaming is a paradigmatic information age sunrise industry. It demonstrates both the new technological paradigm of post-Fordism—digital objects constructed with digital tools—and its mobilization of immaterial labor in new, collectively organized forms of knowledge work. Here, the lab/studio teamwork conditions of software development appear to confirm some of the more optimistic prophecies about post-Fordism as a site of an emergent digital artisanship.

This new industry was a child not of the free market but in the Keynesian welfare/warfare state. Interactive gaming—like the Internet—is a spin-off of the military-industrial complex, a derivative of nuclear war preparations; the most generally accepted candidate for first digital game is “Spacewar,” a military simulation “hacked” into being by defense-related workers at MIT.<sup>18</sup> The digital game was thus born out of a state-led social mobilization of collective resources that could (in however distorted, destructive or inadequate a form) be seen as a rudimentary model of “general intellect.”<sup>19</sup> We are dealing here with more than the originating military influence at the root of so many media technologies: interactive gaming has a far more organic, persistent relation with the weapons complex; not just “spin-offs” from the military to civilian applications but “spin-backs” and “spin-ons.” Pentagon simulation-makers constantly transfer to commercial game-making, while the military frequently contracts services from, adapts products of, or enters into co-development partnerships with, the civilian industry—making interactive gaming the most persuasive instance of a “military-entertainment-complex.”<sup>20</sup>

It is, however, in the realm of consumption that interactive games have had their greatest influence. Here they exemplify what many authors see as a characteristic of post-Fordism—a switch in emphasis from material to experiential commodities. Digital

games build on and extended foundations laid down by older generations of broadcast media; console games depended on physical connection to the ubiquitous television set for their entry into the home. But interactive gaming altered the economics and dynamics of this penetration of domestic time and space. They directly commodify in-home entertainment, —rather, than like broadcast TV's reliance relying on the indirect commodification of advertising. They also dramatically intensify and fluidify the consumption experiencesuch, since they can be played anytime, almost anywhere. The escalation of this process runs from Nintendo's introduction of the hand-held 'Game Boy' to the edicts issued by North American office-managers against the playing of 'Doom' on LAN, to the development of game capable cell phones and PDA's; the most recent is Electronic Art's *Majesty*, an X-Files type conspiracy game in which players will be supplied with clues through their "real life" email, fax or cell-phone, so that they may be contacted by game characters during a work meeting, over dinner, or in bed.

Crucial to this intensified absorption of cultural commodities has been a smoothing and speeding of circulation. Though video game companies first relied on the novelty of the new technology to attract interest, they rapidly realized high-intensity marketing was critical to growth. In the early 1990s, competition between Nintendo and Sega made video games test commodities for aggressive, ironic, twisted "in your face" MTV-style television advertising. Nintendo and Sega were amongst the first companies to "brand" on the electronic frontier, creating an enveloping ambience of games-tips, phone lines, magazines, films, merchandising tie-ins, virtual tournaments, sponsorships, web-sites, game rentals and trials and a host of other marketing and public relations strategies. Such an apparatus not only transmits advertising, but also simultaneously gathers transactionally generated information about customer preferences and habits to be rescribed into the production and marketing process. Video gaming thus became one of the first industries to perfect a post-Fordist "cybernetic cycle" between production and consumption.<sup>21</sup>

The cycleis process reaches new heights with digital gaming's e-commerce experiments. Networked play became widely available with the popular explosion of the Net in the early 1990s. On-line game sites have been test beds for a variety of e-revenue models: subscriptions, pay per play, advertisements, sponsorships for tournaments and other gaming events, and numerous hybrids. Equally importantly, on-line players are guinea pigs for experiments in yet more effectively "closing the loop" between capital and consumer: culling on-line information, practicing forms of "viral" marketing, getting players to add value to games by distributing their own levels and scenarios; and creating worlds of sociality—virtual communities—predicated on renewed commodity consumption.

The degree of controversy attending interactive gaming may be can however only be explained by the ways it impinges on the sphere of social reproduction. One aspect of post-Fordism's search for new markets has been an explosion of selling aimed at youth and children, a process that really ignited in the 1980s. Early video games were part of this moment. They were sold as toys—targeted primarily to boys, aiming to

enlist their sense of rebellion and transgression and mobilize their “pester-power” to open parental wallets. For the industry, this early implantation yields opportunities to expand by continually “up aging” its products—so that games are now marketed heavily to young adults familiarized with them a decade ago. For cybercapital as a whole, however, the juvenile targeting of interactive toys has a wider significance. Gaming familiarizes children—especially boys—with digital skills (while contributing to a plague of obesity amongst youthful “mouse potatoes”). It thus constitutes a sort of an extra-curricular training ground for immaterial labor, and e-consumers.

All these developments are occurring on an increasingly international scale, in the process hyperbolically represented by popular accounts of globalization—where digital games often figure prominently. Ken Ohmae, business theorist of a “borderless world” speaks of “the Nintendo kids” as a cosmopolitan echelon of youth who are “forging links to global economy, turning their backs on older generations and traditional values, and using new technologies, such as the Internet, to circumvent government restrictions.”<sup>22</sup> Such accounts point for substantiation to the mixed genealogy of video gaming, which began as a US industry, annihilated itself in the Atari crash of 1984, and was revived by a triad of Japanese companies—Nintendo, Sega, and Sony, to subsequently evolve a series of trans-Pacific and trans-Atlantic enterprise webs. These economic forces underpin a cultural hybridization of Japanese *anime* cartoon styles, American super-heroes, British neo-colonial nostalgia, and German military precision, in a demonstration of post-Fordist “time-space compression” where “the cultural streams of East and West swirl into the Tastee-Freeze of global entertainment.”<sup>23</sup> The head of Nintendo’s game development says, “We don’t find any difference in kid’s feelings nation-wide or world-wide. Our development R&D is thinking about the world as a target for each of their products.”

In all of this, we are dealing not just with a “world market,” ceaselessly expanding its spatial dimensions, but also with a “worlds market,” generating increasingly persuasive virtual realities. Writing of electronic financial markets, McKenzie Wark refers to post-Fordism’s creation of Third Nature, a sphere of communication and information flows called into being by advanced capital to control and coordinates the industrial structures of Second Nature, and the biosphere of First Nature. Video gaming is the domestic version of this domain. As such, it is a quintessential part of the postmodern ethos often seen as the cultural correlative of post-Fordist production. “Hyper-reality” is precisely what the industry promises. Fredric Jameson’s famous description of simulacrum culture as one where “the world . . . momentarily loses its depth and threatens to become a glossy skin, a stereoscopic illusion, a rush of filmic images without density”—an experience “terrifying” and/or exhilarating—could well be an account of playing a level of *Unreal Tournament*.

In an “ideal” post-Fordist capitalism, computerized production, digital media, e-business, global expansion, and postmodern culture would connect in a smoothly integrated circuit. The digital game embodies the virtuous cycle of this virtual economy: it gives us virtual consumer goods constructed with virtual tools to meet virtualized needs

in virtual environments, “all hermetically sealed by the institutionalized forces organized around the technology”: Sim Capital.<sup>24</sup>

## THE NIGHTMARE NON-COMMODITY

But interactive games also embody the contradictions between the world market and general intellect. They display the forces that make immaterial labor, informational technologies, and digital cultural products resistant to commodification. Interactive games constantly threaten to flip from ideal commodity to nightmare non-commodity. Once again, this process can be schematically followed around capital’s circuit.

In production, interactive gaming is an example of what Tessa Morris Suzuki characterizes as information capitalism’s “perpetual innovation economy,” in which business seeks to maintain continual expansion by generating and marketing a ceaseless stream of new commodities with ever-shortening product cycles and life spans.<sup>25</sup> This speed of innovation comes from the systematic mobilization of immaterial labor, and the accelerated cycles of information flowing from producers to consumers and back. Such velocity of change—Schumpeterian “creative destruction” not just as episodic convulsion but daily *modus operandi*—promises information capital a higher rate of profit than the slower cycles of traditional manufacturing.

But it also brings greater risk, “as the investment needed for innovation is high and the window of opportunity to realize the investment is ever smaller.”<sup>26</sup> The danger is that the blistering pace of change will immolate vast expenditures of research and development before they can be translated into profit.<sup>27</sup> Such an upgrade economy places a premium on renewing and expanding consumer capacities to absorb digital commodities. But the conditions of “general intellect” simultaneously undermine consumption power, in a variety of ways that track back to the system’s requirements—and lack of requirements—for human labor.

The most dramatic of these drains on consumption is piracy. Digital gaming, with its origin in the unauthorized play of MIT programmers, is a child of hacking. And while information does not want to be free anymore than it wants to be paid, there are plenty of people who want free information and, and free games, —and know how to get them. This is a result of what Peter Lunenfeld refers to as the “commerce of tools.”<sup>28</sup> The software commodities that are amongst the most attractive offerings of digital capitalism are not only consumer goods, but also “the tool commodities of technoculture,” which enable “new commodities and new work.” So the relationship between producers and consumers is no longer simply “a case of sellers and buyers” but of “a relationship between hyphenates: between manufacturer-producers and consumer-producers.”

Lunenfeld notes how this process pushes what Marx termed “the social character of private labor” to an unprecedented intensity, so that “although the commodity still retains its awesome power, the “made” character of the technocultural commodity is consistently foregrounded for the consumer-producer.”<sup>29</sup> But this informal take over of

the means, not just of production, but also of near- instantaneous and costless *reproduction* by immaterial labor, constitutes a major dilemma of the world market in the era of general intellect.<sup>30</sup> In the game business, two pirating technologies have recently attracted especial attention—“emus” (software “emulators” that enable software for one platform to be played on another), and “modding” (modification that enables people to copy and play game CDs). But these are only the latest manifestations of an endemic problem.

According to the Interactive Digital Software Association, game pirates released approximately \$3.2 billion worth of packaged goods last year: this figure is *only* for packaged software, and excludes Internet traffic in games, for which, according to Douglas Lowenstein, president of IDSA, “there are no hard figures.” Since worldwide sales of legal games are approximately \$17 billion, this would mean that pirated games are equivalent to just fewer than 20% of total business. Such figures should be viewed with skepticism, since they rests on the improbable assumption that all these games would have been bought at the normal market price. Game makers’ associations have an interest in overstating the problem in order to persuade government action against pirates.<sup>31</sup> But even allowing for hyperbole, illicit, free software is clearly having a major impact: according to Lowenstein “Piracy in all its forms represents the biggest threat to the continued growth of the industry.”<sup>32</sup>

This problem is inseparable from the intensified speed and scope of cybercapitalism’s preferred means of circulation—the Net. A highly sophisticated, competitively organized system of on-line game “warez” has flourished for years, using private FTP servers, Internet Relay Chat (IRC) and, to a lesser extent, short-lived Web sites to distribute “cracked” titles.<sup>33</sup> The peer-to-peer explosion will multiply this problem. Although the music giants have been the first in the firing line, interactive games companies will be next, as video-capable P2P networks such as Swapoo emerge.<sup>34</sup> “I think Napster and Gnutella are pretty serious threats to the games industry,” Lowenstein says: “As you get to more broadband, I think they become even more dangerous.”<sup>35</sup>

The hazards of perpetual innovation and the hemorrhage of piracy place a premium on expanding digital markets. Gaming participates in the “80:20”—actually more like “90:10”—formulae common to many cultural industries. A small minority of “hits” supplies the vast majority of profits. Making money depends on selling these hits very fast, very widely, before the obsolescence of perpetual innovation and the bleeding of piracy take effect. But here too, the industry faces a problem of its own success—that of extreme market segmentation.

We have already noted as digital gaming colonization of youthful minds that can be cultivated on a life-long basis. But the particular line along which this youth market has been developed creates its own limits. For most of their brief history, digital games have been “toys for boys.” The version of “general intellect” cultivated by the military entertainment complex is actually not general, but partial: a masculine collective mind—half, dominated by the most reactionary element of a quite traditionally gendered [AU: OK?] a social brain. The complex grooves worn between the weapons complex and the

gaming industry have suffused game content with the narratives and the subject positions of “militarized masculinity.” This has made it a target of criticism from educators, parents and psychologists concerned about the effects of media violence—and about a gendering of digital play that deprives girls of an informal high-tech head-start program. The industry has an interest in responding to such criticism—and not just to avoid political heat and pre-empt regulatory legislation and civil actions. Expanding beyond the male niche offers the eminently attractive possibility of selling to more than 49% of the population. Throughout the late 90s there was a swirl of activity around the realization of “girl games.”<sup>36</sup>

But breaking out of the testosterone zone is easier said than done. Experimentation with marketing to female players is a gamble in the “risk versus repetition” quandary that pits the possibility of huge profits—or losses—from audacious innovation against safer income from a steady stream of tried-and-true clones, sequels, and knock-offs. While the former route may open interactive entertainment to greater participation by girls and women, the inertial momentum and feedback loops of the latter keeps it in a tight orbit around male players.<sup>37</sup> Many companies find it safest to deepen the established male game niche, up-aging and internationalizing markets.<sup>38</sup> But here too, digital capital encounters its own limits.

## SPATIAL EXPANSION

We have already invoked the “80:20” formula of the interactive gaming industry, whereby 20 % of game titles bring in 80% of revenues. But there is another “80:20” split crucial to the industry: —the division between the rich world and the poor is such that 20% of the world’s population owns 86% of its wealth.<sup>39</sup> Nearly all —game industry sales are within advanced capital’s triadic core of North America, Europe and Japan. There are sporadic attempts to penetrate beyond these zones: there is, apparently, currently a gaming boom in South Korea. : Electronic Arts recently made its first marketing ventures in Thailand.<sup>40</sup> But from a truly planetary perspective, only a fraction of the world’s population is participates in digital game culture. The statistics are basic but inexorable. For one sixth of the world’s population, a Sony PlayStationII, with its \$300 plus price tag, costs a year’s income, while even a hand held Nintendo Game Boy console represents three months livelihood; the 250 million global child laborers have no time for gaming; only some 3% of planetary inhabitants have Internet access.<sup>41</sup> Even if the activities of transnational marketers mean that the dreams of many of the world’s children are focused on the adventures of Mario or Sonic, for a majority, existence centres on a precarious struggle to fulfill truly universal needs, for food, water, and shelter.

There is one sense, however, in which interactive gaming really does participate in a world market, i. But this is in the field not of consumption, but production. So far, we have emphasized the industry’s role in creating a new, digital, “immaterial” labor force. But as many analysts have pointed out, post-Fordism results in a highly polarized pat-

tern of employment. While the top end does sometimes correspond to the “ideal post-Fordist model” of skilled knowledge-workers, the bottom end—d—of labor power cheapened by automation and global mobility— is far closer to the experiences of workers in capital’s early period of “primitive accumulation.”

All games playing systems, consoles and computers, share a vital component with other parts of the digital economy: —microchips. They also have specific requirements for assembly of consoles, cartridges and peripherals. Both chips and hardware are the products of a worldwide industries whose plants are located in *maquiladoras* and enterprise zones in Mexico, Central America, Southern China, Malaysia, the Philippines, Taiwan or Korea. Game consoles and cartridges, like all computers, crystallize in their tiny circuits two contrasting types of work. Both. Both involve ‘digital labor.’ But we are talking about different digits: in one case, the binary codes of zeros and ones manipulated by male programmers in the developed world, in the other the ‘nimble fingers’ of a primarily female cheap-labor global workforce, recruited specifically for its supposed docility and disposability, and subjected to ferocious work discipline under conditions that destroy health within a matter of years.

These operations have been the sites of savage labor struggles. A test case of NAFTA’s labor provisions involved unionization at the plant of a Nintendo subcontractor in the Mexican *maquiladoras*, where young women assembling “Game Boy” consoles and cartridges worked ten to twelve hour days on assembly lines to which, in summer, ambulances were called three or four times daily to collect those who collapsed from heat exhaustion. Sony recently responded to a strike by female Indonesian electronic-assembly workers seeking the right sit rather than stand all day, by threatening to relocate to Vietnam. And so on.<sup>42</sup>

This global dimension of digital play demonstrates a classic contradiction between capital’s imperatives at the production and consumption ends of its circuit. While the game industry depends on international cheap labor to shave production costs, immiseration limits its prospects for transnational growth. In this combined and uneven development the problem facing the games business, and other digital cultural industries, is in a way that of both too much and too little “general intellect”: too much *too much* insofar as the capacities of the immaterial workers concentrated in the developed world exceed managerial control, giving rise to problems of piracy; too little; *too little* insofar, in so far as the relative impoverishment of the underdeveloped world constricts markets.

Moreover, these problems overlap in what is now known as “Far Eastern counterfeiting”—or piracy—in emergent markets. Significant as the gift economy and warez networks may be in North America and Europe, the major areas of contraband games are in the so-called developing world. China, the Russian Federation, Hong Kong, and Taiwan are considered to be the largest sources of counterfeit video games. Much of the product is shipped through Hong Kong and Paraguay for reshipping to countries all around the world. The IDSA accuses 55 countries of either aiding counterfeiters or not establishing or sufficiently enforcing adequate protections against theft of intellectual

property.<sup>43</sup> Critical areas of the global economy—particularly in Asia—are virtually off-limits for Japanese and American based game giants. According to the Business Software Alliance, the piracy rate has reached 96 percent in China alone; RASPA, a Russian anti-piracy group, declares that as many as 98 percent of PlayStation titles in that country are counterfeits.<sup>44</sup> Many pirates legitimize their actions as forms of anti-imperialist or class resistance. Self-serving as these justifications are, especially when advanced on behalf of criminally ruthless black market operations, the “objective” dimensions of the world market give them a certain truth.

If the interactive game industry exemplifies capital’s creation of a virtual “Third Nature” apparently independent from material constraints, —the meteoric rise and fall of the dot.coms illustrates the limits of this hallucination. The e-commerce meltdown of 2000/01 is now attributed to the delirium of e-entrepreneurs bemused by the hyper—reality of their own advertising into ignoring the absence of hard profit, the saturation of the computer market, and the creation of gross overcapacity in telecommunications networks. Behind their failure to realize wild expectations lay the resistances and recalcitrancies we have described. Underlying the burnout of virtual capital are nagging fears the Net may actually be intractable to the commodity form: that people will not buy in a networked environment where they are used to free experiences, or worried about hacking and privacy breaches; that profits will be sapped by piracy; that markets constrained by digital divides will not be large enough; that transnational expansion will be stalled by “backlash” against globalization. Such uncertainties are then magnified as a perverse result of the very capacities promoted by e-commerce. Popular digital participation, inserted into a market framework as the activity of millions of investors connected through on line brokerages and day traders, manifests as an intensification of individualistic game-like speculation and competitive behavior. One side of this is the collective euphoria —an “irrational exuberance”—that has buoyed up high-tech markets. But the other is a panic capitalism—jittery, nervous, possessed by fears it cannot deliver on its promises, that the system that seemed to have the planet in its hand holds only a bubble.

#### **4. SPECIES BEING AND THE POSSIBILITIES OF SOCIALIST CYBERSPACE**

So far I have said little or nothing about the content of interactive games. I want now to rectify this by proposing that the theme of virtual play, in the broadest sense, is nothing less than species being — humanity’s capacity to objectify and transform the “natural” conditions of its collective life. Nominating a death-match of *Quake* or an hour or two of *The Sims* for this portentous role clearly requires some justification. It is, however, clear that the issue Marx identified in 1844, about the way human beings make “life activity itself an object of will and consciousness” currently at the start of a new millennium manifests in an array of issues almost stupefying magnitude: the climatic changes of the

greenhouse effect and ozone layer; crises of water supply and desertification; the control of lethal viruses released by human encroachment on tropical rainforests; xenotransplants and longevity extensions; cyborg prostheses; the transformation to relationships between the genders produced by successive waves of reproductive technologies; the fabrication of new life forms; not to mention the “exterminist” possibilities of nuclear, chemical and biological warfare.<sup>45</sup> That these issues are closely associated with the new technological powers created by “general intellect” —is also obvious. So too, I think, is that the central problem Marx raised in relation to “species being,” namely the alienation of collective, human-transforming capacities into the hands of privatized ownership is, in the age of Monsanto, Bristol-Meyers and Merck, more acute than ever.

Such issues find translation in popular culture. One of these (by no means the only one)<sup>46</sup> is gaming, which can be seen as a ludic meditation on the possibilities of collective human development, up to and including fundamental socio-economic, environmental, and biological alterations. This is the manifest content of what are often referred to as “God games” of civilizational progress or, alternative world histories, and science fiction epics, that which put the player in the situation of choosing options in sweeping narratives of human destiny. But even smaller— scale fantasies—shooters, fighting and sports games, and role playing fantasies, can be seen as addressing species being issues, in so far as it is possible to digitally redesign events and protagonists; changing the contours of terrains and the populations of cities, the terms and outcome of battles, and the “skins,” gender and race of on-screen agents.<sup>47</sup>

It is hardly surprising that virtual games representations of species being often recapitulate the premises of the cybercapitalist system that produces them. Consider the elements of *Pokemon*, wildly popular amongst schoolchildren: players raise and train mutant creatures for combative competition with each other, in an elaborate system of trading transactions and intellectual property rights; the medium is digital; the orientation is multinational. Could there be any better metaphor—or socialization process — for the operations of global e-capital is which the new frontier of accumulation and warfare is the bioengineering of viruses, plants, animals and humans?<sup>48</sup>

But the attraction of virtual play is the possibility of things being different. And this is a prospect in which some sections of a generation raised on interactive games now seem to have an interest. Cyberactivism and hacktivism by so-called “anti-globalization” movements—actually largely movements of “counter-globalization, “alternative globalization,” or “globalization from below” — foreground the possibilities of reappropriating digital technologies. Boosters of global capital rhapsodize about the iconoclasm of “Nintendo kids” without reckoning that their activities might to extend to a critique of a world borderless only for business of the sort mounted by the electrohippies of Seattle and cyberspace Zapatistas. In such as context, we can ask whether interactive gaming points to social possibilities other than—perhaps even “beyond”— cybercapitalism.

One possibility, of course, is to take piracy and free software phenomena as harbingers of “dot communism.” This is an idea that has recently been audaciously developed

recently by Richard Barbrook and others, in a mannerway with which I am broadly sympathetic. However, dependence on open source and Napster-style networks as the mechanism of post-capitalism leaves so many questions about the organization of non-digital goods (not to mention digital infrastructures) unresolved that I want to take the discussion of “dot communism” beyond the romance of piracy, and into an apparently much more prosaic and unpopular realm: planning.

Since the collapse of the USSR it is widely held today that on this issue there exist only two options: —the Free Market or the Command State (decisively discredited by the despotism of previously existing socialism). The failure of the Command State is a consequence not only of the enormous possibility for bureaucratic corruption, but, even more fundamentally, of the sheer enormity of the calculus involved in comprehensive economic co-ordination. The strong (and, many believe, unanswered) challenge posed by Frederick Hayek and Ludwig von Mises to their socialist opponents in the “calculation debate” is that of the impossibility of processing the quanta of data necessary for comprehensive planning through the “single brain” of the centralized state.<sup>49</sup>

There is a third way, periodically proposed by the anti-authoritarian left: decentralized democratic planning, sometimes known as participatory economics. The usual objection is that the volume and complexity of information required to plan a modern economy could never be processed in time to allow either democracy or participation: Oscar Wilde’s quip that “socialism is a good idea, but it takes too many evenings” springs to mind. But the emergence of highly distributed, very fast information systems throws this rebuttal into question.

Over the last decade radical economists such as Dianne Elson, Michael Albert and Robin Hahnel, Paul Cockshott and Allin Cottrell have raised the issue of how digital networks can be used to co-ordinate highly decentralized forms of economic planning.<sup>50</sup> Their proposals range from loose governmental directives backed by high levels of public disclosure about labor, environmental and production costs, to more complex systems iteratively matching needs and production between assemblies at many levels of local, regional and transnational collectivity. What all share, however, is the suggestion that the information technologies deployed to create “friction free” capitalism—just-in-time systems, customer-supplier networks, easy to use accounting programs—open the way to an inverse result, namely the subjugation of market to plan without the hypertrophy of a centralized state.

It is in this context I locate the long-term significance of gaming, with its possibilities for simulating social and species alternatives. The point here is not just that games can—and sometimes already are—the vehicles for speculative, ludic experiments that carry thewith the premises of social orders.<sup>51</sup> More radically, however, one could conceive of such media in a context where networked simulation is important, not just a matter of play, but as a component of “in real life” popular planning. Here it is worth reconsidering the issue so often to highlighted in discussions about game violence: the industry’s military legacy. War is not just about violence, but also about state-led collective co-ordination and the marshalling of resources and populations, at multiple lev-

els—tactical, strategic and societal. And this is a persistent preoccupation of games, from *Civilization* to *Shogun* to the collaboration of on-line *Quake* clans. What the Pentagon has put into general circulation is not just training to kill, but training to plan. Video and computing gaming's vilified "culture of carnage" is also a culture of civilization organization. If the negative aspects of such organization this is the deeply ideological nature of premises programmed into the games such as *Sim City*, or *Age of Empires*—"raise taxes, citizens riots" — nonethless such games nonethless represent a popularized systemic logic, using vivid, easy versions of the software technologies that are today being used managerially, militarily, and politically to make critical social decisions about resource allocation.

In this sense digital games can be seen as avatars of distributed, democratic "withering away of the state" state planning. "General intellect" is—as Tiziana Terranova points out—a Marxian inflection on the theme of a networked collectivity persistent in futurist works from Teilhard de Chardin's "noosphere" to Pierre Levy's concept of "collective intelligence."<sup>52</sup> Classical Marxisms have rightly been contemptuous of such ideas for their technological determinism or philosophic idealism, and above all their assumption that such a collective consciousness arises as the self-reflexive awareness of global capitalism. But this rejection might be reconsidered within an antagonistic perspective: if we think, that is to say, of the global mind versus the limbic system of the stock market, social knowledge versus financial capital, the noosphere of socialist cyberspace arising from class war. It is, in fact, hard to envisage what form a twenty-first socialism might take *other* than as a distributed but interconnected system of collective communication devoted to solving problems of a material and immaterial resource allocation — the corollary of an emergent sense of species being.

In my book *Cyber-Marx* I propose the elements of such net-based communism: de-emphasis of waged work in favor of a "citizen's wage" or "basic income"; an increased availability of publicly funded but diversified media, including free access to digital networks; experimentation with the uses of such communication systems for decentralized, distributed social planning. This would be a society of "general intellect" where wage-work would have a steadily decreasing importance; where, although there would be labour to be done, livelihood would not be dependent on a job; where, consequently, people would have more time to think throughabout and participate in decisions about organizing associative life, with access to a very wide variety of communication channels, and diversity of representations and images of possibilities for of being; where these networks served also as routes for a flow of collective debate and decision-making about the production and distribution of goods, including debate and decision about directions to be taken and not taken in technological development.

Such speculations of course transgress every iota of contemporary "common sense" and every well-justified Marxian prohibition against utopianism. And in a way, given current social conditions, it *is* presumptuous to even talk of such possibilities. For one thing, the level of social investment envisaged by such a program would, as even Bill Gates recognizes, certainly not have as its first objective the generalization of high tech-

nology access, but the meeting of much more fundamental human needs; food, water, medicine, housing, reading, writing. But this point also reminds why we might want to replace the automatism of the world market with the collective intelligence of general intellect. Returning for a moment to the interactive game industry, recall some figures cited earlier: \$8.8 billion dollars as the annual revenues of the US digital games business, some \$17 billion globally—\$30 billion if we throw in arcade games. According to the most recent United Nations Human Development report, the annual additional total expenditure necessary to meet universal basic human needs for food, medicine, shelter, clean water and literacy are some \$70 to \$80 billion annually.<sup>53</sup> The \$8.8 billion annual revenues of the US video and computer game industry alone is slightly less than the estimated annual total needed to provide clean water and safe sewers for the world's population, slightly more than would be needed to give basic primary education to everyone on the planet.<sup>54</sup> These are crude figures. But as, the hero of William Gibson's short story "Johnny Mnemonic" observes while pointing a shotgun at the corporeal form of a cyber-gangster, "sometimes crude is the only way to go."<sup>55</sup> Blunt as they are, such indices put in clear focus the crucial issues of species being in the era of general intellect and the world market—issues of cybercapitalism's adequacy, not to its digital objects, but to its human subjects.

## NOTES

1. This was the question posed to participants at the Special Symposium on Cybercapitalism at the Institute of Advanced Social Studies, Princeton University, USA, March 29, 2001, where this paper was first delivered. It draws on collaborative work in process on the interactive game industry with Dr. Stephen Kline and Greig de Peuter, both of Simon Fraser University.

2. Gilles Deleuze and Felix Guattari, *Anti-Oedipus: Capitalism and Schizophrenia*. (New York: Viking, 1983) *A Thousand Plateaus: Capitalism and Schizophrenia* (London: Athlone, 1987) 380-385. The polarities of 'development' and 'underdevelopment' of course still exist and continue to fall preponderantly on either side of a North/South axis. But at the same time these poles increasingly designate possibilities of ascendant affluence or abysmal misery that can be visited on *any* point in the planet according to the movement of corporate investment.

3. Karl Marx, *Grundrisse* (Penguin: Harmondsworth, 1973) 699-743.

4. Marx, *Grundrisse* 700.

5. Some of the writings of this group can be found in the collection edited by Paolo Virno and Michael Hardt, *Radical Thought in Italy: A Potential Politics* (University of Minnesota: Minneapolis, 1996).

6. See Paolo Virno "Notes on the General Intellect," in *Marxism Beyond Marxism*, ed. Saree Makdisi, Cesare Casarino, and Rebecca E. Karl. (London: Routledge, 1996); Antonio Negri, *The Politics of Subversion: A Manifesto for the Twenty First Century*. (Cambridge: Polity, 1989); Michael Hardt and Antonio Negri, *Labor of Dionysus: A Critique of the State-Form*. (Minneapolis: University of Minnesota, 1994) Michael Hardt and Antonio Negri, *Empire* (Cambridge, Mass.: Harvard University Press, 2000);

7. Jean-Marie Vincent, "Les automatismes sociaux et le 'general intellect.'" *Futur Antérieur* 16 (1993): 121 (my trans.).

8. Karl Marx, *The Economic and Philosophical Manuscripts of 1844* (New York: International Publishers, 1964).

9. Gayatri Chakravorty Spivak, *A Critique of Postcolonial Reason: Toward a History of the Vanishing Present* (Cambridge, Mass.: Harvard University Press, 1999) 73-81, and David Harvey, *Spaces of Hope* (Edinburgh: Edinburgh University Press, 2000) 206-212, 213-232. See also, for a poignant application of this concept, Keith Doubt, "Feminism and Rape as a Transgression of Species Being," in his *Sociology After Bosnia and Kosovo* (Oxford; Rowan and Littlefield, 2000) 61-66. The classic critique of Marxist humanism is of course Louis Althusser, "Marxism and Humanism," in *For Marx* (London: Penguin, 1969).

10. According to *Red Herring*, the well-reputed high-tech business journal, game related revenues topped \$8.9 billion in 1999, compared to US movie box office receipts of \$7.3 billion. It notes, however, that this figure is somewhat deceptive, since the film industry generates a much larger revenue thanks to various "synergetic" linkages—pay-per view TV, video and DVD rentals and sales, etc. Once these are taken into account, the global film industry took in some \$47.9 billion; even if home and arcade gaming were added together, worldwide gaming revenue would only be about \$30 million. On the other hand, the game industry is growing much faster than the film business; Forrester research predicts that in the US alone it will grow from \$8 billion in 2000 to \$29 billion in 2005, with roughly double these numbers worldwide. See Dean Takahashi, "Games Get Serious," *Red Herring*, Dec 18, 200, 66.

11. Nicholas Garnham, "Constraints on Multimedia Convergence." *Information and Communication Technologies: Visions & Realities*. Ed. William Dutton (Oxford: Oxford University Press, 1996) 115.

12. Martin Lee, *Consumer Culture Reborn: The Cultural Politics of Consumption* (London: Routledge, 1993) 119-120.

13. Lee 129.

14. Lee 130-131.

15. Lee 119.

16. Lee 128.

17. For elaboration of this model, see my *Cyber-Marx: Cycles and Circuits of Struggle in High Technology Capitalism* (Urbana: University of Illinois, 1999).

18. See Herz, and also Steve Poole, *Trigger Finger: The Inner Life of Video Games* (London: Fourth Estate, 2000) and Steven L. Kent, *The First Quarter: A 25-Year History of Video Games* (Washington: BWD Press, 2000).

19. See Richard Barbrook and Andy Cameron, "The Californian Ideology," *Science as Culture* 6:1 (1996) 44-72; Manuel De Landa, *War in the Age of Intelligent Machines* (New York; Swerve, 1991); Paul Edwards, *Computers and the Politics of Discourse in Cold War America* (Cambridge, Mass.: MIT Press, 1997); Manuel Castells, *The Network Society: The Information Age Vol 1*. (Oxford: Blackwell, 2000).

20. This term is often attributed to McKenzie Wark, "The Information War" [http://www.mcs.mq.edu.au/Staff/mwark/warchive/21\\*C/21c-cyberwar.html](http://www.mcs.mq.edu.au/Staff/mwark/warchive/21*C/21c-cyberwar.html). See also Tim Lenoir, "All But War is Simulation: The Military-Entertainment Complex," *Configurations*, Fall, 2000; <http://www.stanford.edu/dept/HPS/TimLenoir/MilitaryEntertainmentComplex.htm>; Paul Leslie, *The Gulf War As Popular Entertainment: An Analysis of the Military-Industrial Media Complex* (Edwin Mellen Press, 1997).

21. Kevin Wilson, *Technologies of Control: The New Interactive Media for the Home* Madison University of Wisconsin, 1988).

22. Kenichi Ohmae, "Letter from Japan" *Harvard Business Review* May-June 1995, 161-162.

23. Herz 169-170.

24. Steven Kline, personal correspondence.

25. Tessa Morris-Suzuki, *Beyond Computopia: Information, Automation and Democracy in Japan*. London: Kegan Paul, 1988.

26. Arun Kundnani, "Where do you want to go today? The rise of information capital." *Race & Class* 40:2/3 (1998/99) 57-58.

27. Robert Brenner has recently highlighted as a key ingredient in the crises of capitalist regimes the dynamic by which large investments in complexes of fixed capital become rapidly outdated by new technologies. Whereas neoclassical economics tends to assume a relatively friction free shifting of resources

into new, higher productivity technologies—the benign operations of the invisible hand—Brenner points to an alternative, “malign” possibility, in which owners of the old technology who cannot immediately liquidate their sunken investment, lower profit margins to meet the challenge from more efficient newcomers, thus setting in train a process can spiral into a generalized downturn. Brenner uses this model to explain the great crisis of Fordism in the 1970s. However, post-Fordism does not escape this dynamic. If anything, it accelerates it. Robert Brenner, “The Economics of Global Turbulence,” *New Left Review* 229 (1998) 1-267.

28. Peter Lunenfeld, *Snap to Grid: A User's Guide to Digital Arts, Media and Cultures* (Cambridge, Mass.: MIT Press, 2000) 5.

29. Lunenfeld 5-7.

30. Quoted in Lesley Ellen Harris, *Digital Property: Currency of the 21<sup>st</sup> Century* (Toronto: McGraw-Hill, Ryerson 1998) 162.

31. ZDTV “VideoGame Piracy” <http://www.zdtv.com/zdtv/gamespottv/videofeatures/story/0,3776,2310674,00.html>

32. Steven Kent, “Video-game Pirates on the Loose.” Aug 7, 1999. ZDNet. <http://www.zdnet.com/zdnn/stories/news/0,4586,2310837,00.html>

33. ZDTV, “VideoGame Piracy”. <http://www.zdtv.com/zdtv/gamespottv/videofeatures/story/0,3776,2310674,00.html>

34. Thomas E. Weber, “Maverick Programmers Prepare to Unleash Anarchy on the Web,” *The Wall Street Journal*, 27 March, 2000, B1.

35. <http://news.cnet.com/news/0-1005-201-1757865-4.html>

36. This is documented in a fascinating collection of essays edited by Justine Cassell and Henry Jenkins Justine Cassell and Henry Jenkins, *From Barbie to Mortal Kombat* (MIT Press, 1998). See also Elizabeth Buchanan “Strangers in the “Myst” of Video Gaming: Ethics and Representation,” *Computer Professionals for Social Responsibility Newsletter* 16.1 Winter 2000.

37. The equation, according to some, is that “catering to boys is much more fun. Video game companies are very good at it, and it makes them rich. And they don’t want to mess with a winning formula.” One industry analyst concludes, “The video game industry is so huge it can afford to ignore women” and that “one side effect of the eruption of game-playing into the mature male consumer market is the continual shelving of plans to design games for females.” This is certainly a message conveyed by Jeff Levy, a vice president at 989, a the software company owned by Sony, who, observing that the question of women in gaming “has been asked of the video game industry for the last twenty years” says “I don’t think most male dominated products worry about it. Do beer companies market for women? Or do they just go after their core demographic? Do we have the luxury of developing products for women? It’s that age-old adage, a dollar chasing a nickel? Isn’t it better to fish where the fish are?” Alexander McGregor, “Toys for the Boys,” *Financial Times*, Dec 12/13, 1998, 10.

38. The effect of this swirl of contradictory initiatives around female representation and participation in games is hard to estimate. Industry organizations, anxious to promote the image of an expanding consumer markets and repudiate accusations of sexism, now generate rosy estimates of steep rises in female game play. Thus a 1999 survey conducted Interactive Digital Software Association claims to “explode the myth that the videogame domain is a boys-only club.” According to the survey, approximately 35 percent of frequent console gamers and “a whopping 43 percent of frequent PC gamers” are female. It concludes that “more girls and women are coming on board, as their comfort levels with the technology and the software rise through familiarity with the Internet or products aimed squarely at female players.” But although there is probably some truth to this, there are good reasons to doubt the shift is as great as the IDSA likes to represent. Studies of earlier generations of media have shown that there are enormous gender related differences in what constitutes “use” of entertainment technologies. “Watching” television, for example, has historically meant very different things for men and women, with men tending to watch on a more sustained basis, command the remote, and select programs, while women watch TV on a more sporadic basis, interspersed with domestic duties. The IDSA study does not mention any of the comparable factors that structure digital gaming: duration of play, ownership of sys-

tems, choice and purchase of games. There *has* recently been a wider inscription of girls and women into gaming—in terms both of characters and appearance of women in game magazines. But, much of this “feminization” seems to follow the lines of the Lara Croft strategy: that is, putting women into games so as to appeal to young men. It is thus intensification, not a diminution, of the “testosterone zone” gaming ethos. The message is that one doesn’t have to be geek to game—you can have the girl too.

39. *United Nations Human Development Report 1999* (New York: United Nations, 1999).

40. Takahashi, 67; Bangkok *Post*, “Electronic Arts does its First Thai Language Game,” Aug 5, 1998. Accessed on-line at <http://www.bkpost.samart.co.th/news/DBarchive/>

41. *United Nations, Human Development Report 1999 & 2000* (New York: United Nations, 1999 & 2000).

42. For full discussion and documentation see Nick Dyer-Witthford, “The Work in Digital Play: Video Gaming’s Transnational and Gendered Division of Labor.” *Journal of International Communication* 6:1 June 1999, 69-93.

43. IDSA 23.

44. Software & Information Industry Association, <http://www.siiia.net/piracy/default.asp>; Business Software Alliance, <http://www.bsa.org>. At one time it was believed that corporations’ best chance of squashing pirates lay with Hong Kong’s integration into China, and the imposition of authoritarian state socialist discipline. But this hope has faded as the liberalization of China’s economy spawns its own thriving bootleg businesses. Beijing has its own “Thieves Alley” where software pirates congregated. In 1995, China and America teetered on the edge of trade war over the counterfeiting of software, music and video. Eventually, the Beijing government agreed to crack down and closed many of the plants. Many, however, believed that the only effect was to push production deeper underground—or even into the clandestine private software factories of the People’s Army and other state agencies.

45. Karl Marx, *The Economic and Philosophical Manuscripts of 1844* (New York: International Publishers, 1964).

46. It will by now be apparent that the author has not only been immersing himself in too much Marx and too many video games, but also reading too much science fiction: the influence of Ken Macleod’s extraordinary Trotskyite-cyberpunk quartet, *Star Fraction*, *The Stone Canal*, *The Cassini Division* and *The Sky Road* (London: Orbit, 1995, 1996, 1997, 1999), especially the second and third volumes, is duly acknowledged.

47. In this, games, of course, repeat primordial themes of myth and fantasy; industry apologists who in other contexts are only too happy to assert that digitization makes everything new persistently appeal to this archetypal, “timeless” appeal to excuse games from charges of excessive violence. But this not only overlooks every historical specificity of such content’s realization, but also, more importantly, occludes the fact that the digital medium of these games is now precisely that through which IRL (in real life) social and corporeal futures are now being shaped, in such ventures as bioengineering, nano-technologies and robotics, and, of course, in the simulated rehearsal for “smart” weapon warfare.

48. See Ellen Seiter, “Gotta Catch ‘Em All—Pokemon”: Problems in the Study of Children’s Global Multi-Media.” Paper presented at the conference “Research in Childhood, Sociology, Culture and History,” Oct. 1999 at the University of Southern Denmark.

49. The best statement of this view remains F.A. Hayek, “The Use of Knowledge in Society.” *American Economic Review* 35 (1945): 519-30. For a fascination discussion of and rebuttal of Hayek, see Wainwright.

50. Dianne Elson, “Market Socialism or Socializing the Market?” *New Left Review* 172 (1987); Michael Albert and Robin Hahnel, *The Political Economy of Participatory Economics* Princeton: (Princeton University Press, 1991) and *Looking Forward: Participatory Economics for the Twenty First Century* (Boston: South End Press, 1991); Paul Cockshott and Allin Cottrell, *Toward a New Socialism* (Nottingham: Spokesman). See also Andy Pollack, “Information Technology and Socialist Self-Management.” In *Capitalism and the Information Age: The Political Economy of the Global Communication Revolution*. Ed Robert McChesney, Ellen Meiksins Wood and John Bellamy Foster (New York: Monthly Review).

51. For some discussion of subversive possibilities within game scenarios, see Nicholls; Julian Bleeker, "Urban Crisis: Past, Present and Virtual," *Socialist Review* 24: 1/2 (1995) 189-223; William Stephenson, "The Microserfs Are Revolting: Sid Meier's Civilization II," *Bad Subjects* 45 (1999).

52. Pierre Levy, *Collective Intelligence: Mankind's Emerging World in Cyberspace* (Cambridge, Mass.: Perseus, 1999).

53. *United Nations, Human Development Report 2000* (New York: United Nations 2000).

54. *United Nations, Human Development Report 1999* (New York: United Nations 1999), 388..

55. William Gibson, "Johnny Mnemonic" in his *Burning Chrome* (New York: Ace Books, 1994.).

# Social Worlds of the Information Society: Lessons from the Calumet Region

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*John Monberg*

Rhetoric heralding the information society promises a shiny new world. This rhetoric draws on cultural values powerful in America: technology as a means to social progress, an emphasis on individualism, and a belief in the dynamism of free markets. This rhetoric is powerful because the information society is both new and abstract. But what kind of social world and workplace are information technologies likely to actually create when they are shaped by unfettered corporate imperatives? Similar social promises were made at the beginning of the twentieth century when U.S. Steel planned the creation of Gary, Indiana, in the heart of the Calumet Region, on the shore of Lake Michigan, southeast of Chicago: advanced technologies would transform a frontier into a global village, create a wealthy workforce, a clean environment, and exciting social spaces.

What social worlds emerged from U.S. Steel's plans over the course of the twentieth century? Richard Dorson, a leading oral historian, conducted an exhaustive analysis of the Calumet Region. He summarized his findings in describing the self-produced myth of the Calumet Region as "a cultural desert peopled by blue-collar workers living in the midst of polluted skies, garbage dumps and violent ghettos." (Dorson 235) This self-produced myth is perhaps the most succinctly stated vision of the most dystopian kind of social world one could imagine. It is also, at the same time, profoundly true and profoundly false. Cultural desert, blue-collar workers, polluted skies: each of the claims is supported and denied by massive physical, social, and environmental evidence of monumental scale. The Calumet Region offers scenes of a uniquely beautiful duneland environment and desolated urban waste sites, one of the most economically productive facilities in the world and bitter impoverishment. Why did the Calumet Region evolve the way it did over the course of the twentieth century? Early decisions diminished a distinctive ecology, permanently scarred the urban form of the area, and resulted in racial divisions that continue to cause great suffering even today. All of these consequences of power are manifestly visible in the Calumet Region, even as they remain invisible in many analyses of the information age. Corporate imperatives drove the bru-

tal simplification of a complex ecological system and prevented the social solidarities that could challenge corporate power through unionization and community action.

The logics driving the America Online-Time Warner merger are eerily similar to the forces shaping the Calumet Region's history. Again, a technologically advanced, capital-intensive corporation with a dominant position in its industry restructures sets of social relations through a calculating rationality. America Online-Time Warner is producing audiences instead of steel, measuring and grading the demographic, psychological, and web-browsing activities of individuals as raw materials the production process, but it employs the same logic that U.S. Steel employed one hundred years ago. The lessons of the Calumet Region experience debunk many of the myths surrounding the information age.

Changes in media technology change patterns of social interaction, and changing patterns of social interaction have political consequences. Given the rapid advancement of communication technology and the wide range of novel uses to which this technology has been put, calls to assess the democratic potential of new communication technologies have become increasingly common. The Calumet Region offers lessons from one hundred years of social planning and experimentation that can be used to critique today's promise of a more democratic information society. Why choose the Calumet Region as an object of comparison? It is the geographic location where the largest industrial concentration in the United States confronted both a natural environment with more species per acre than any area in the United States, and a social environment with unprecedented racial and ethnic diversity.

Like computer-communication technologies of the present era, steel was a technology that had pervasive consequences for the America of its time. Steel changed the way people lived, worked, traveled, and fought wars (Misa, *passim*). Cheap steel gave rise to railroads, skyscrapers, automobiles, battleships, armored tanks and most of the other items, technologies, and institutions we associate with modern, industrialized societies. The Calumet Region was at the heart of the transformation of American society, and was itself a product of it. The Calumet Region was home to the largest concentration of industrial production in the United States, and perhaps the world. Writers sponsored by the Works Projects Administration provided an overview of the Region in 1939:

Today, with a population of 260,000, the Calumet has become, in only three decades, one of the greatest industrial centers of the world. Nowhere else in America is there such a concentration of diversified industrial operations. Dominated by the heavy industries – the manufacture of steel, railroad equipment, and chemicals, and the refining of oil – the region possesses 221 various companies which manufacture 1,217 different products. Represented in this group are several plants – a steel works, a rail mill, a cement plant, and a generating unit – which top the list of their category as the world's largest. One of the five large oil refineries is the largest departmentalized refinery in the world (*Calumet Region 3*).

The region underwent its most significant expansion when United States Steel calculated that it would be the optimal location for its largest steel making facilities. United States Steel was a more significant economic and political force for its time than any corporation today, including Microsoft, IBM, or Oracle.

Even discounting the hyperbole inherent in the writing style of the time, Herbert Casson's dramatization painted a striking image of the unique power of United States Steel:

The biggest business fact in the world is the United States Steel Corporation. It has more stockholders than the population of Nevada; more employees than there are voters in Maine; more profits, in a good year than the revenue of the city of New York. Above all ordinary corporations it towers like the Great Pyramid of Cheops above the sand mounds of the desert (Casson 1).<sup>1</sup>

Like today's information technologies, steel was the most advanced expression of science and technology of its era. U.S. Steel's Gary facility was the first example of the deliberate application of the principles of scientific location of industry. There were no retraced steps, extra movement, or reheating of intermediate products. The plant was designed for efficient flow of materials, was the first designed so as to take advantage of the benefits of electrification (Greer, p.60),<sup>2</sup> and became a model for the most advanced production facilities of Germany and the Soviet Union.

The glossiest promises of information society futurists like Bill Gates and Nicholas Negroponte merely echo the words of Will Moore, a U.S. Steel booster:

Every advance known to science and industry will have its mark on these steel mills, destined to be soon the most extensive in the world in the manufacture of steel and the making of everything in which steel is the prime factor. I hereby submit a statement of facts that will surprise you. It is about the wonderful-amazing conditions, present and prospective, at Gary, Ind. – a business enterprise unequalled in combined size, speed and permanency in the world's history (Moore 7).

Many analysts argue that the interconnections of the information age will transform the world into a global village. Unlike the screen-deep interconnections of webcams and web pages today, the large number of immigrants who came to the Calumet Region in search of employment created a global village of physically close neighborhoods. They came primarily from eastern and southern Europe – Poles, Czechs, Russians, Lithuanians, Hungarians, Croatians, Serbians, Slovaks, Turks, Greeks, and Italians. Immigrants from fifty-two separate nations made their home in Gary by 1920, and the proportion of foreign stock (foreign-born, or native with at least one immigrant parent) reached 60.5 percent of the city's entire population (Mohl and Betten 5).

The business pages were, at millennium's end, abuzz with stories of millionaires made rich by Internet initial public offerings. Similarly, in the turn of the century steel

industry, "Every young officer who served under General Carnegie was either a millionaire or a physical wreck in a few years. No system has ever made so many men so wealthy in so short a time" (Casson 24). The social, political, and economic dominance of the Calumet Region in general and Gary in particular were expressed by Hammond, Indiana mayor Tom Knotts in 1910, who called Gary the "prophet" of the national and even global future (Lane 34). Contemporaries dubbed Gary the "Magic City." Corporate planners for U.S. Steel shaped the urban form of Gary, Indiana according to the dictates of short-term profit as they implemented a strictly functional form of rationality. Because the social system was shaped to meet the requirements of the corporation, public participation in planning was almost nonexistent and the social spaces that would have allowed for deliberation and collective action were purposefully eliminated from the urban form. Gary's largely immigrant population was already splintered along the lines of ethnicity, race, and class. U.S. Steel's urban planning efforts exacerbated these divisions and lead directly to the social and environmental problems that continue to plague the region today. A divided population, without access to direct or mediated communication, was unable to effectively resist U.S. Steel's imperatives.

### **AMERICA ONLINE, TIME WARNER, AND THE INFORMATION SOCIETY**

The AOL-Time Warner merger resulted in a \$147 billion media conglomerate controlling the pipelines and information flows that connect most of the homes of the information society. If U.S. Steel's efforts to maximize corporate profits shaped the Calumet Region during the twentieth century, AOL-Time Warner's efforts to gain an advantage from advanced interactive communication technologies will likely shape the social structure of the information age during the twenty-first century. What will be the process by which publics are constituted through the efforts of Time Warner? The largest and most technologically advanced of these efforts were the Full Service Network, an interactive cable television system, and Pathfinder, Time Warner's umbrella site on the World Wide Web.

Such interactive efforts are worthy of attention. The world's leading media and entertainment company, Time Warner has interests in cable television, movies, recorded music, book publishing, magazines, and theme parks. The company has revenues of more than \$20 billion a year, including \$4 billion in international revenue. Time Warner is also viewed within the media industry as a technological pioneer. It created the first national cable channel, Home Box Office, only made possible by an innovative use of satellite distribution facilities. Financial clout, breadth of content, and technical initiative are hallmarks of the company, allowing it to form a template of media products and services that have been widely adopted by the rest of the industry. Time Warner has aggressively deployed the most sophisticated technology in the area of interactive media. Its interactive initiatives include the Full Service Network, an advanced cable

television network in Orlando, Florida, and Pathfinder, one of the most extensive and prominent sites on the World Wide Web. These initiatives constitute an ongoing experimental effort to determine whether or not interactive media will be commercially viable on a large scale.

Time Warner's interactive efforts can be understood as a technical capability. The Full Service Network was the world's first digital, interactive television network, and provided customers in Orlando, Florida on-demand access to a variety of entertainment and informational services. It was also, at the time, the most technically sophisticated commercial information service ever delivered to the consumer, self-described as the "Cadillac" of interactive-television tests. From the time of the system's inception in 1992, over \$700 million dollars were required to make it operational on December 14, 1994.

The Full Service Network required advances in each of many sophisticated technical components as well as their coordination into a functioning system. Each technical component is produced by a different company or companies, develops at a different rate, and is subject to different regulatory barriers and business opportunities. Time Warner's efforts are frequently symbolized in terms of heralding in a utopian future. The theme of "digital convergence" among software, hardware, communication, and entertainment industries is a staple of the business press and technological futurists. The perception created is that this field is a high risk/high reward activity. The promise of technology in shaping a new future is often framed in religious terms, as when the Full Service Network was described in *Time* magazine as "the holy grail of interactive television: true video on demand" (Elmer-Dewitt 125).

In these narratives, the future is not a static vision on the horizon; it is hurtling toward us at an ever-increasing rate. Gerald Levin described the relationship between technological momentum and corporate initiatives vividly:

Sooner or later, every significant player in the information and entertainment industry is going to have to understand the implications of broadband digital interactivity. Except as every competitor in the cable industry already knows, sooner isn't only better, it's often everything. The FSN will drive home this lesson with unforgiving velocity. The introduction of the FSN is an irreversible step across the threshold of change (Elmer-Dewitt 126).

The Full Service Network was really an attempt to fulfill the promise that technological advances hold out. Even if the purpose of the Full Service Network is vague, the reasoning seems to be that technological change is so fast and so powerful that inevitably some way will be found to make use of emerging new technologies. Anything more than a cursory perusal of Gerald Levin's speeches and position statements makes clear that he views technological advance, in and of itself, as a world-historical force. For example, in a shrilly argued piece, he stresses the watershed nature of interactive technology: "The same kind of minds that denounced Galileo as a heretic, ridiculed

Edison's notion of an electric-powered light and dismissed the Wright brothers' ideas as a crackpot scheme have turned their sights on the new medium of interactivity" (Shapiro B1). The idiom of today's business journal is the language of early twentieth century industrial boosterism.

The stridency of Levin's language is as much a gauge of his beliefs as it is a gauge of the skepticism he must work to overcome. His statements reiterate the theme of technology in the service of corporate destiny. In settling the frontier of the future, Levin frequently calls on metaphors with quasi-religious overtones. Connie Bruck observed that, "Levin has long maintained that he has been compelled by something far less mundane, almost mystical: a sense of obligation to divine and bring to fruition the 'manifest destiny' of Time Inc. And now Time Warner" (Bruck 55). In such rhetorical strategies, the future is at once a time, a place, a corporate prize, and an inevitable outcome of technological development. There is no place in this rhetoric for arguments about technological choice. There is no room for public debate in narratives of linear technical progress. Access to communication channels, and the uses to which these technologies are put, are taken out of history, struggle, and politics. Ironically, these most advanced, most widespread channels of interactive capability may allow little space for a truly public social dialogue.

Like the Calumet Region, information technology-based publics all lay at a key juncture, an identifiable point at which economic, cultural, and social forces intertwine. These technologies blur fixed distinctions between originator/message/audience and product/advertisement/community as complex chains created for a given purpose by one set of groups are adopted and modified over time by other groups. Planned urban streets no longer separate social classes; here relevant social categories may be as explicit as the data fields coded into marketing databases or as implicit as the global audience for a popular World Wide Web site. This analysis is sympathetic to and complements media studies efforts that trace the multiple, ongoing ways that the cultural technologies of media situate audiences.

The forms of life congruent with the adoption of the printing press, highways, and similar technological orders were unforeseen and certainly not chosen by any of the actors involved in some sort of rational decision-making process. As James C. Carey's analysis has demonstrated, with the adoption of the telegraph formerly bounded communities became much more strongly affected by distant economic, political, and cultural centers. These connections dramatically revised existing notions of journalistic style, conceptions of objectivity, common sense, and perceptions of time and space. The economic model of rational actors pursuing their individual ends through an efficient market is a poor model for the intelligent social shaping of advanced media technologies. The most profound and consequential impacts are often felt diffusely and only over the long term; they are not easily be measured in economic terms, and they may be outside the control of any particular actor.

Or so shows the experience of the Calumet Region. The promise of steel was also held at one time to promise the creation of the kind of social worlds we most would

want to inhabit. Capturing this trace of an alternative future has been the aim of photojournalist Jose Camilo Vergara. He spent several decades in Detroit, the Bronx, Chicago, and Gary, coming to understand the places left behind when the economic and industrial forces that promise so much move on. Vergara rejects the demands that these places are worthless and should be bulldozed, pleading that

There is something inspiring about ruins. As witnesses of the urban condition, they urge us to ask: Is there no choice but to stand by and watch the destruction of our cities? Stripped down to their essences, leftover buildings and discarded spaces form cityscapes of great power. While they last, we have our ruins and the immense longings they instill in us. Even at risk of bodily harm, we need to hear the elemental chant that comes from our skeletal neighborhoods. The 'City of the Broad Shoulders,' and 'Steel City,' sing about the shortness of life, the awesome beauty of our creations, and our abject failure to create a just society. With their chant they beckon us to come home and perhaps try again (Vergara 197).

My purpose has been to make metaphoric use of the ruins. They yet have work to do. If we listen to their chant we may build an information society that does not simply repeat the failures of the steel society. What framework is most useful for identifying the critical new aspects of these electronic social spaces? How does power function, as social differences are inscribed into systems, mobilized, and fed back into the circuits used to shape the social worlds of those who are enmeshed within such systems? At the moment, this problem area remains underdeveloped. If we are going to live in an "information society," broad and deep perspectives ought to be brought to bear on specific projects, in order to illuminate and reimagine policy alternatives, and the implications these policies have for just what kind of society the "information society" might be.

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## NOTES

1. Casson, Herbert N. *The Romance of Steel, The Story of a Thousand Millionaires*, New York: A. S. Barnes and Company, 1907. p. 1.
2. Greer, Edward. 1979. *Big Steel: Black Politics and Corporate Power in Gary, Indiana*, New York: Monthly Review Press, p. 60.

# Virtuality and VRML: Software Studies After Manovich

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*Matthew G. Kirschenbaum*

In 1999 I was asked to join a panel on “virtuality” convened by the artist and media scholar Johanna Drucker at the international Digital Arts and Culture 2000 conference in Bergen, Norway.<sup>1</sup> Her instructions to us were to organize our ideas around “the ideology of the virtual” or “virtuality and ideology.” Aware that the same word (“virtuality”) had also recently been used by N. Katherine Hayles to indicate “the cultural perception that material objects are interpenetrated by information patterns,” I was intrigued by the opportunity to think about ideologies of the virtual from a materialist perspective.<sup>2</sup> What would it mean to reverse the poles of Hayles’s formulation and address my own critical conviction that *digital* objects are “interpenetrated” by *material* patterns (and circumstances)?

By *digital objects* I mean tangible hardware devices such as processors, VDT screens, and Palm Pilots, but also, and especially, intangible software objects such as source code, operating systems, interface elements, and data representations of all kinds. I use tangible and intangible to distinguish between hardware and software because *both* hardware *and* software are material entities. The fact that you can’t reach out and touch software (only the shrinkwrap) is incidental. (I like to call that the haptic fallacy.) Software is the product of white papers, engineering specs, marketing reports, conversations and collaborations, intuitive insights and professionalized expertise, venture capital (in other words, money), late nights (in other words, labor), Mountain Dew and espresso. These are material circumstances that leave material traces – in corporate archives, in email folders, on whiteboards and legal pads, in countless iterations of alpha versions and beta versions and patches and upgrades, in focus groups and user communities, in expense accounts, in licensing agreements, in stock options and IPOs, in carpal tunnel surgeries, and in the [former] Bay Area real estate market (to name just a few).

At the time I was highly critical of the general lack of historical materialist studies of new media, and the more polemical portion of my remarks went something like the following:

New media studies, as a field, has not yet shown that it appreciates the importance of material history. Too often instead, there is a kind of romance of the digital that prevails, celebrating either the medium's putative immateriality or its putative newness and uniqueness. If the devil is in the details then much of what has been published under the rubric of new media studies has been positively angelic. We have numerous books on virtual reality, but no accounts of the rise and fall of VRML, the all-but-defunct Virtual Reality Modeling Language. Why is it that three-dimensional graphics, a representational form well established in both the gaming and the scientific visualization communities, has yet to find a foothold on the Web? What does that say about Web as an electronic environment? These are questions that I believe are answerable, and I believe it is our responsibility to answer them, for they have direct bearing on what we think we know about digital art and culture today. But they are questions that can only be answered by acknowledging that digital objects are the product of material environments and that those environments have histories that are or ought to be recoverable.

That's what I said in 1999, though of course there were already studies that did at least some of what I was calling for, Hayles's among them. Two years later, however, Lev Manovich published *The Language of New Media*, certainly the best book I've seen on digital culture and aesthetics. In it, Manovich includes, among much else, a call for a shift from media studies to something he calls software studies or software theory.<sup>3</sup> What is software studies? Manovich doesn't give us much more than the term itself, though his book clearly stands as an extended self-defining example. To me, software studies implies something very close to what I was trying to get at in Bergen, the idea that the deployment of critical terms like "virtuality" must be balanced by a commitment to meticulous documentary research to recover and stabilize the material traces of new media – a remembrance of things past, but also the pre-condition for another of Manovich's imperatives, a "theory of the present." What follows is my own brief experiment in software studies and theories of the present, a thumbnail narrative of the rise and fall of VRML that attempts to answer some of the questions I have raised above.

Our story begins July 2, 1998, when unsuspecting users looking for [cosmo.sgi.com](http://cosmo.sgi.com) (Cosmo Software being SGI's brand name for its emerging line of VRML products) would have encountered an error message telling them their browsers were unable to locate the server. Industry insiders knew that SGI was looking to divest itself from the entire Cosmo line, and that a deal to sell Cosmo Software to Sony had just fallen through. But to quote one observer at the time, "even the most experienced people on the Internet can not remember when a Fortune 500 company, with an enormous investment in its presence on the Web, has simply turned off a major Web site."<sup>4</sup> SGI would later restore the site, claiming that its disappearance was only coincidence, the result of an ill-timed technical glitch. Yet days later, in the wake of the failed Sony sale, SGI pulled the plug on Cosmo, halting all product development, transferring all Cosmo employees to other divisions of the company, and eventually licensing Cosmo products to a third party outfit named Platinum. Although VRML was and is an open standard,

meaning that it is not beholden to any one company or platform, Silicon Graphics had been its biggest industry supporter; with SGI out of the picture, VRML would lose its best browsing software and its only dedicated authoring tool.

VRML had had a checkered history up to this point. The first version of the standard was introduced in May 1994, relatively early in the Web's overall development. Originally engineered by Mark Pesce, Gavin Bell, and Tony Parisi, VRML 1.0 was based on a Silicon Graphics 3D object format known as Open Inventor. Although the VRML spec itself was non-proprietary, this fact explains SGI's early and central involvement in the VRML community. VRML allowed for the modeling and rendering of simple 3D objects and scenes that could be displayed by any Web browser with the appropriate plug-in. Unlike Apple's QuickTimeVR, which is essentially a vehicle for displaying 360° panoramas, VRML brought the capacity for true 3D rendering to the Web. Objects were fully defined in a three dimensional coordinate system, and users could navigate between, behind, and around them, or else explore the infinite computational void in which they were situated.

Skeptics have noted that the VRML community from the beginning was infatuated with the most vulgar trappings of cyberpunk science fiction. The standard was actively promoted as the mechanism that would quickly transform the Web into an authentic Gibsonian information landscape. This prejudice was written into the VRML spec at the most literal level: VRML files, for example, were to be called "worlds," with a .wrl suffix. But by late 1995, the VRML community, viewed by many as the Next Big Thing, had become heavily politicized, with a loose alliance comprising SGI, Netscape, and Sun on the one hand, and Microsoft on the other. The VRML Consortium, dedicated to keeping the standard open-sourced and community-based, was caught off guard. Matters came to a head when SGI and Microsoft each proposed rival specifications for VRML 2.0, the successor to the original roughly defined standard. SGI bypassed the VRML Consortium, and their spec, dubbed "Moving Worlds" (emphasizing animation and interactive scripting) was launched with considerable public anticipation. "Moving Worlds" quickly became the basis for the evolving Cosmo line of products. This was 1997 and early 1998, the heyday of VRML development. Cosmo was generally thought to be the best browser, though Microsoft's Worldview, built by a company named InterVista (headed up by Toni Parisi, one of the original VRML triumvirate) was set to be included as an integral component of Windows 98. Developers, meanwhile, had started to realize that rather than virtual worlds and Gibsonian cyberspaces (for which there seemed to be little demand in the commercial sectors of the Web) the true future of VRML lay in embedded 3D animation, including banner advertising and the like. For a time, the VRML community enjoyed a weekly cartoon serial starring a character dubbed "Floops." Such was the situation in the summer of 1998 when SGI, increasingly in dire straits financially, made the decision to sell off all of its non-essential product lines – including by this point Cosmo.

In the wake of the failed Sony deal, Cosmo was purchased by Platinum, a large but rather lackluster company specializing in corporate enterprise software. People at

Platinum had begun thinking about something they called Process and Information Visualization (business visualization, or “biz viz” for short) and saw in VRML a way of revolutionizing the next generation of corporate middleware. They had also, about a month beforehand, acquired Intervista from Tony Parisi, which, with the addition of Cosmo, effectively gave them control over the only two VRML platforms in common use. Platinum planned to take the best features of both and release an integrated browser and developer’s tool tailored for corporate data visualization, product visualization, and what was nebulously called process visualization; all compatible with standard Microsoft Office packages like PowerPoint, Word, and Excel. So what went wrong? Platinum themselves fell on increasingly hard times financially, and eventually sold the Cosmo line to industry giant Computer Associates, where it remains mothballed to this day. The VRML community, meanwhile, has moved on, and reincarnated itself as the Web 3D Consortium, which is currently work on a standard known as X3D, an XML-compliant schema for describing 3D objects and scenes.<sup>5</sup>

So that’s what happened to VRML. But the question remains: why have true 3D representational technologies yet to prove broadly viable on the Web? This is a question that many have asked, and one line of thinking is typified by the following remarks posted to the VRML developer’s list:

Take a look at HTML [and Java]. None of [their] problems are stopping people from developing Web sites. Why? Because they perceive a need for the kind of content that they can create with these technologies. The perceived need is so strong that they workaroud all the problems. We need content that demonstrates convincingly why 3D and VRML is useful and necessary to the masses.<sup>6</sup>

Content may be king, as they like to say on Bloomberg and MSNBC, but I think part of what my brief narrative of VRML reveals is the extent to which this line of thinking slips too easily into a kind of false consciousness. Apple’s QuickTimeVR, for example, has built a dedicated following, and the true heir to the kind of dynamic animation once promised by VRML is to be found in Macromedia’s Flash product. Flash is currently being used for both games and visualization on the Web, but especially for splash screens and the kind of animated vignettes and shorts anticipated by the Floops character. Tracking the extent to which the rise of Flash parallels the fall of VRML is an exercise for a longer essay, but one of the reasons why Flash is flourishing is that it has overcome many of the problems that afflicted VRML, notably browser distribution (the Flash player is a standard installation option for both Netscape and Internet Explorer) and cross-platform compatibility. This immediately restores us to the eminently material world of data standards, licensing and distribution agreements, marketing strategies, and so forth. The salient question is not whether one can produce “better” content with VRML or with Flash, but rather the extent to which the kind of content we create for environments like the Web is determined by various social histories,

histories that are often corporate, but *always* situated within absolute zones of material and ideological circumstance.

What is software studies then? Software studies is what media theory becomes after the bubble bursts. Software studies is whiteboards and white papers, business plans and IPOs and penny-stocks. Software studies is PowerPoint vaporware and proofs of concept binaries locked in time-stamped limbo on a server where all the user accounts but root have been disabled and the domain name is eighteen months expired. Software studies is, or can be, the work of fashioning documentary methods for recognizing and recovering digital histories, and the cultivation of the critical discipline to parse those histories against the material matrix of the present. Software studies is understanding that digital objects are sometimes lost, yes, but mostly, and more often, just forgotten. Software studies is about adding more memory.

## NOTES

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3. Manovich, Lev. *The Language of New Media*. Cambridge: MIT Press, 2001. For Manovich's remarks on software studies, see p. 48.
4. <http://www.webreference.com/3d/lesson44/>.
5. See <http://www.web3d.org/x3d.html>.
6. <http://www.web3d.org/www-vrml/hypermail/1998/9807/0466.html>.

# Prospects for a Materialist Informatics

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## *Interview: Lisa Nakamura and Donna Haraway*

- L In a collection of essays entitled *Race and Cyberspace*, that's the one co-edited with Beth Kolko and Gil Rodman, your work actually inspired us a great deal to even do this collection; inspired me in particular to focus on issues of race and cyberspace. We noted that there's a real lack of critical discourse on the cyborg as raced. Which we saw as an omission because the *Cyborg Manifesto* is quite clear. That's one of the dimensions of identity that you are really interested in.
- D And also national issues that aren't entirely caught by the word "race." For example, the location of information workers in southeast Asia is a question not maybe always best approached through that North American category, but some sets of issues around class and position in international trade systems, and race/gender configurations that are not at all the same as in the North American context, so that the word "race" is one of many dimensions. But I agree with you that the *Cyborg Manifesto* tried very hard to put the cyborg in a situated context and not a universalist context.
- L Right.
- D You asked why the cyborg has not been discussed in terms of its specificity of relation to women of color, specific class and national circumstances and so on. . .
- L Yes.
- D I thought about that for a long time in different ways and your questions provoked it again. I think that there are many things to say about that. For example, technology, and especially so-called "high technology," is theorized in the history of philosophy, in the history of technology, in national and international politics, in terms of the relationships between two universalist categories – human and machine – as if these categories are history and cultural neutral. For example, I read a *New York Times* article in the "Science Times" last week, where robotics researchers at MIT were being interviewed about their latest generation of robots that can learn. These robots are discussed in terms of these universalist categories – human and machine

– and neither machine nor human get the kind of situated material-semiotic analysis that asks: What kind of relationality is going on here and for whom? What sort of humanity is being made here in this relationship with artifacts, with each other, with animals, with institutions? How do you move out of the universalist category to the situatedness of the actors, both the human and nonhuman actors? So neither human nor machine should be theorized in these universalist ways; but rather, which kinds of humanness and machineness are produced out of those sorts of material-semiotic relationships. In thinking about information worlds, or cyborg worlds, insofar as the cyborg world is a figure for information worlds, I want to know what are the specific material circumstances for the designers, the makers, the users, the marketers, the dreamers, the performers, the musicians, the public culture, the occupational health people. Who is where in these worlds, and where are the human and nonhuman actors, and what does their relationship say about world-building? So that at no point in the system are we using these pseudo-universalist categories like man and machine, or human and machine. If we do it that way questions of race and justice within an intersectional analysis of racial positioning, which also takes account of age, marital status, national location, class location – i.e., how all of that figures in interaction with both other human beings and machines – would be taken for granted from the start. You would never have to get to race from somewhere else.

- L Right.
- D So you're always inside complex material semiotic worlds and not inside these universal categories.
- L It almost sounds like the omission of race from the cyborg discourse is symptomatic of what you're talking of in a way, which is this totalizing impulse to look at sets of categories in these exclusive ways.
- D And they all rely on adjectives – you know, like race, or gender, or class, or something like that – as opposed to thinking cyborgs from the get-go in terms of their real conditions of existence, which have nothing to do with those pseudo-universal categories of human and machine. Does that make sense?
- L Yes, it does. It does. It's interesting to me, given that there are so many different kinds of entities in play here that I think are being deconstructed by the cyborg, some have been taken on so enthusiastically, especially the gendered ones, and others have sort of not been.
- D Yeah. Well, some communities have taken up some of the gendered stuff, but even there it seems to me that it still ends up, gender still ends up meaning women as opposed to understanding the systems of sexualized meanings and practices that run through these worlds. And that also it seems – this is kind of an aside, but I think it helps us think about the same set of questions – there is a way of thinking about

any technology that has the same baleful effects as these universal categories of human and machine, and that is thinking in terms of costs and benefits. And if you can make up an economic accounting sheet, an audit, you can audit a technology for cost over here, benefits over there, who gets which costs, who gets which benefits, and so forth. You handle it like an accounting problem. And I think that's a terrible mistake, or rather that's a tiny little bit of work that ought to come after we ask questions like "What kind of world is this?" Literally, ontological questions: What sorts of entities exist here, and with what kind of relationality? What are the practices here? We might find much more interesting things, including things that bear on who lives and who dies, that aren't well gotten at by thinking as an accountant or cost-benefit analyst. A cost-benefit analysis basically takes a given technology and then tries to assess the costs and benefits; it doesn't question the conditions of existence of the life world itself. And the life world is not the technology in some narrow sense – it's a whole set of material-semiotic practices that make lives this way rather than some other.

- L Correct, yes, it makes life signify one way rather than another way.
- D Consider ways of living which aren't caught by a cost-benefit analysis. I think often-times the critics end up trying to do a cost-benefit analysis that resets the, you know, who comes out ahead and who comes behind. These "resettings" have the same kind of epistemological approach, instead of a materialist cultural approach.
- L Exactly. I think the metaphor of the digital divide, which is what we hear now to explain some of the inequities in access to cyberculture, whatever that means, looks at it very much in that way, that once everybody is online, so to speak, then everything will be O.K. For a couple of reasons, one is that I think cyberspace is seen as an unmediated good, and the other reason is that once an audience of any particular group, whether it be Blacks, Native Americans, etc. have been penetrated fully by the new medium or the new technology, that is seen as a benefit.
- D Well, exactly, and it's because what folks lose in that way of thinking – the digital divide way of thinking, as you've outlined it – what folks lose track of is that there are other ways of doing life. Access to a supposedly universal good is not necessarily an improvement, and there are ways of doing life that aren't about getting access to someone else's privilege. Let me back up in order to bring in an idea that Leigh Star developed. She wrote a paper on basically what happened when you think about the world from the point of view of people who have to live in relationship to standards that they don't and can't fit. So they don't have the option of simply being elsewhere – you can't forget that those standards exist because, you must be living in relation to those standards in one way or another. I think infomatics is like this, on a global basis. Virtually no one on the planet is untouched by the dominance of these techno-economic systems. It means that lives have to be lived in relationship to standards that aren't one's own, but that you also can't just ignore. What happens

if you begin thinking about techno-science from that point of view – that’s the standpoint – from the point of view of the folks who don’t fit but can’t just walk away?

L Right.

D You don’t know in advance what shape and feeling that non-fitting has. Sometimes it’s super exploitation; sometimes that’s not it at all, but it’s another kind of non-fitting that might have to do with different sorts of idea about what constitutes a satisfying kind of family or what constitutes a proper relationship with the land and with agriculture. Exploitation is only one kind of not fitting. I think that those of us who are – for the lack of a better metaphor – on the left somewhere fall into impoverished ways of thinking about what it’s like to live in these emergent worlds. We too get either/or categories: you’re either exploited or you’re in power, you’re either white or you’re of color, you’re either privileged or you’re unprivileged. We get these binary ways of thinking going, and then the thickness of the world gets lost. We miss many kinds of exploitations we aren’t paying attention to, but we also miss many kinds of possibilities that ought to be nurtured. Does that make sense?

L Yes, it does. It seems to me listening to you more and thinking about your work that you’ve been writing about the digital divide for a long time, I think even before the term became sort of a policy-like way of talking about the Internet.

D Maybe I would say less a digital divide than a kind of like a digital California, a digital earthquake system.

*(L & D Laughing.)*

D Do you see what I mean? Lots of people come to California because they want to live here, and in a sense, I think, the earthquake system of California, or these high seismic activity zones, are better metaphors than the simple idea of the digital divide.

L Right.

D Because there are all sorts of dangers and possibilities that are differently distributed, and if we think in a binary way – benefit/cost, digital divide, and on/off – we’re going to miss both the trouble and the possibilities.

L Now theoretically, the Web offers a different way – the Web claims to be non-binary, it claims to give choice to users – and. . .

D And there’s some truth in that.

L And I think there’s a little bit of truth in that. One dichotomy I wanted to address comes from personal experience: I grew up in Cupertino and you write very eloquently about the culture of Silicon Valley, in particular the culture that generally

doesn't get written about, generally in the *New York Times*, it's not dot.com culture, in that stereotyped way, but rather its the lives of the people who work in chip factories.

D Or service providers, such as janitors.

L Uh huh, people who empty the garbage cans, people who. . .

D The whole array of people who make that system possible.

L Right. And it seems that these people are just as much the cyborg in the way you posit – just as much the cyborg as somebody who programs or surfs the Web or engages in more sort of visibly or seemingly digital activities.

D Exactly. I wanted to use the notion of the cyborg as that world – that emergent array of ways of life – that incorporates people in all sorts of positions, not just designers and users, but makers, refusers, cleaner-uppers, the whole array of lives that exists inside this techno-social system.

L Yeah.

D The cyborg in the “Manifesto” was not supposed to be the fembot in *Wired* magazine.

L Right. Exactly. Nor was it supposed to be Ripley in the *Alien* films with her mechanical arms. I'd say that's a vision of the feminist cyborg which has been celebrated far too much.

D It would be funny if it wasn't so depressing. Although I must admit I kind of liked Ripley.

L Oh, I adored those movies, yes.

D But that's a different issue.

L It's really hard to ask somebody who is a theorist like you to speculate as to why their work has been received as it has been, and I'm not even sure if you follow the way your work is received over time; it's been almost ten years since *Simians, Cyborgs and Women*.

D No, fifteen years. 1985 is when it came out in the *Socialist Review*.

L That's right. And people often forget that it came out in the *Socialist Review*.

D Not *Wired* magazine!

L Right.

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- D It came out in response to a question of what is socialist feminism going to look like in the '80s, in the context of the Reagan years.
- L Right.
- D And my cyborg was not a celebratory, blissed out wired bunny.
- L Exactly.
- D Well, I think my work is a Rorschach. Some of that is because my writing really is layered and evocative and figurative and regularly full of sometimes deliberate and sometimes gratuitous contradictions. It really doesn't have a dominant sense of straightforward argument. Partly because what I'm trying to do is write complexity, and that's a deliberate choice. The writing complexity means that people can take it in different directions. On the other hand, I think there's a kind of motivated refusal to acknowledge the racial analysis, to acknowledge the analysis of systems of inequality and systems of exploitation that runs through my work all the time. There are some people, whom I regard as overwhelmingly allies within the anti-racist and feminist left, who also regard my work as part of the enemy, as part of having sold out to technoculture. I think they are deaf to the critique because of what they see as the pleasure. And the pleasure is real. Then on the other side, there are folks who read my work for a kind of cyber-feminism that is very different from what I think I'm doing, who don't want to hear anything about the systematic suffering built into these ways of life, and who want to hear only the emergence, a kind of emergent transcendence, or something like that. I think both readings are highly motivated misreadings.
- L Right. And I think that your pointing out the sort of, to me, literary – as I'm a literary person your work is very literary to me, very multi-layered – shows that misreading is in a sense unavoidable, but there are motivated kinds of misreadings.
- D Exactly. There are some misreadings that I love because they show the things that weren't necessarily in when I wrote them, but certainly are in the way people read. There are others kinds of misreadings that seem like flattening with a bulldozer.
- L Right. I think you could have an interesting essay about teaching Donna Haraway's essay, because I think that students often are baffled by that essay, and tend to have, as you say, a Rorschach response to it as well, and expect it to be a celebration of the cyborg because it's a term you put into play. No one can understand why you'd invent a term and then not sort of parade it down the street with a red ribbon, so to speak.
- D You know, I appropriated the "cyborg" from space-race language, basically, and tried to reinhabit it, to do more interesting kinds of work without denying for a minute the way cyborg worlds are part of permanently militarized national science, part of

systems of late capital, part of both new and old forms of deep inequality. Without for a minute forgetting all of that. But I also refuse to write a kind of a pious, “I see nothing but evil in the world.” The “Manifesto” is an attempt to inhabit cyborgs in more complexity, but as an anti-racist and left feminist. And a person of a particular generation, out of a post-World War II generation, and a person whose own access to education is directly because of Sputnik – which paid money to Irish Catholic girls to get an education. You know, that kind of trying to be conscious of where in history one is. We don’t look at these things from all the time everywhere, but from very particular kinds of history. I also happen to write sometimes with a kind of ecstatic quality. I think language is a physical phenomenon, and I enjoy it. Pleasure in writing is sometimes taken as a mark of non-seriousness. Sometimes the problem is humor, but it’s more than that – if the writing itself is acknowledging and in some sense reveling in its own physicality, that’s taken as evidence of a non-serious analyst. Does that make sense?

- L Yes, it does, and it seems to me to explain why your work has been taken up particularly by critical studies of technoscience, people who are working in English, or rhetoric, or cultural studies.
- D Or performance art.
- L Performance art, exactly.
- D Yeah, I get taken up much more by artists in the broad sense, who often get what I’m doing both critically and in terms of more life-affirming stuff, not that criticism isn’t life-affirming, but that it isn’t the whole story. I get much more taken up by artists in that double way than I tend to be taken up by critical theorists, or folks who write with a very different kind of rhetoric.
- L Again, that may be part of the Rorschach test you’re talking about, I think, to not take advantage of this kind of work that you’re doing seems to me a sort of motivated refusal as well. I wanted to talk a little bit about the pictures that accompany your work: I know that you’ve written working closely with Lynn Randolph, and it seems to me that you’ve always done multimedia work, as least as long as I’ve been reading your stuff.
- D Yes, it’s been twenty years, I guess.
- L Right, which of course predates the use of the word “multimedia” in a lot of ways. It’s not common for a critic to do that, or for a theorist to do that. I think it’s more common for literary authors to, and I was wondering. . .
- D I was an English major in college. It was English, zoology, and philosophy, it was a kind of equal. . .

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- L There'd be very situated knowledge for each of those. And the image on the cover of *Simians, Cyborgs and Women* – you noted in the introduction that race in cyberspace is something that isn't talked about at all, even though it's such a particularly hybrid kind of image racially speaking.
- D Well, actually the model for that painting is a very particular woman from the People's Republic who happened to be in Boston, Cambridge during the Tiannemen Square event. She was from Beijing, not far from where some of the most powerful demonstrations and the army tank movements were going on. She was at the Radcliffe Institute. It's not just a woman of color in some universalist sense; it's a person in a very particular historical place, that lives, who was a colleague of Lynn Randolph that year at the Radcliffe Institute. The image on *Simians, Cyborgs and Women* is a "woman of color," in a sense, but not an American woman of color. In other words, the specificity matters; "women of color" can become a misleading universalist category just as quickly as the category "man" or "woman" can because it can make you think that one set of racial discourse is going to apply globally.
- L Right. Especially now during the presidential election I think that these terms may go around as voting blocks.
- D And that is interesting. But that there's no question that Lynn Randolph and I were very deliberately taking up a painting, a visual figuration, that made it difficult, one would hope, to think in some kind of universalist white way. There are also animals, humans, machines, racial categories; that is, there are all sorts of categories in that painting that are put into question. I used that image quite deliberately for those reasons. And I think of it more as a painting that puts categories into question rather than hybridizes them.
- L Right.
- D It's like a Derridean move; it's like categories have a slash through them. They're in question as opposed to resolved into a hybrid. That is the critical move on race that makes sense to me. But one doesn't necessarily give up crucial categories – like let's say the category Black or African-American, or the African-American voting block issue in Florida, or the elderly Jewish retiree voting block issue. You don't necessarily give up categories like Jewish or African-American because they have powerful lived meaning. But the categories have a slash through them; they are in question because they don't travel everywhere. They get taken apart when they move, when they are taken up in other moments. Begin with the category Black or African American in relation to contemporary medicine, and especially genetic medicine, and, let's say, transplant medicine and genome-databanking issues around the globe. There are various ways that clumping populations into quasi-racial categories by shared genes is something that certain populations, certain progressives, blacks,

health activists, are demanding in some contexts. At the same time these *same* activists would be resisting genetic racial categories in another context. To take another example, people who want to keep certain racial categories in the census will, on the other hand, loosen up on categories when they look at, let's say, residence patterns in county planning. Political actors have got to be savvy about how these categories aren't "on" or "off." It's not either/or; it's that categories have to be in question in savvy materialist ways.

- L It seems to me that that image which you chose to use takes race and a bunch of other categories as you were saying, it puts them *sur rature*. . .
- D Which is different from hybrid.
- L Right, exactly. I think it is a bit off as hybrid.
- D Well, I think I've read worlds as hybrid sometimes, too.
- L Well, hybrid is a comforting category in many ways because it seems that everyone can get in on it on a sort of equal basis. To put something *sur rature* I think is a much more radical move, it sort of destabilizes it in a permanent way which is not comfortable for people.
- D Plus, it's that 'the being uncomfortable' is not the same thing as saying that you can walk away from something. Hybridization tends to be used as a resolution of contradiction, a means of walking away from the contradiction. And I think that if anything characterizes what I believe over this whole period of time it's that you can't walk away from a contradiction. We need somehow to be accountable to all of them even though we know we can't.
- L Right, and it seems that in particular now with the Web being so popular and cyberspace as this panacea for social ills it seems that cyberspace offers users the opportunity to walk away, that that's the lure in it, that there are no bodies. . .
- D At least at the level of ideology. You know, the level of practice is always more interesting.
- L Oh, of course.
- D And what's going on on the Web, I defy anybody to give a one-line generalization in terms of the complexity of really positive things and really, really scary stuff. The Internet is a powerful, very recent, if not absolutely new, material semiotic bond among people that you can't just walk away from. Celebrating it or condemning it seem to me equally paralyzing gestures.
- L Right.

- D You asked me earlier whether I see resistance practices at work in the academy. If we think of the Internet in relation to resistance practices – there is a tremendous amount of creative appropriation of the Internet for ways of life that I want to see affirmed, whether they're environmentalist, or indigenous sovereignty issues, or ways of questioning conditions of trade, and so on and so forth. None of this is utopian, but it is also very real and has all kinds of potential for folks. It would be crazy to celebrate the Internet as some kind of blinged-out answer to the dominations of contemporary capitalism. It would also be crazy to walk away from it.
- L Yeah, I entirely agree, I think that the movement, around 1995, from non-graphical to graphical cyberspace, that is from pre-Web to post-Web Internet, was a movement away from lists, which is what the Internet was, it was bulletin boards and hierarchical arrangements of information which were difficult to navigate for most people to something a little more mosaic-like, which was the original term for the first Web browser, Mosaic, and that in itself is encouraging.
- D Yeah, that's true. I also was thinking about all the different modalities of creative resistance, you know, creative/resistance work, *both*, because not all the stuff I see going on on the Internet necessarily is readily labeled resistance. There are also creative productive work going on by our folks, if you will, that isn't always best named resistance. Resistance always sounds like it's resistance *against* the forces that are supposedly in control and leaves the notion of the generation of creative possibility somewhere else. Does that make sense?
- L Yes.
- D The word resistance is too narrow. But anyway, just think of all the genres – there's straightforward critique, there's circulation and analysis of the latest outrage, there's performance and performance art of all kinds, there's creation of public cultures on the Web, there's a creation of both novel and interesting forms of access, there's people involved in design dimensions of infomatics. Look at the University of California system's various efforts to take seriously the mandate to be more available to all the populations of California by making use of the Internet. On the one hand, that's been commercialized, as the university is ever more commercialized; on the other hand, there's rural outreach to populations that would never be in the UC system otherwise through various distance learning mechanisms. This is an area where it really makes sense to be one of the actors – the question of the relationship of the Internet to the University of California, say – or who's going to have what kind of role to play in distance learning in the UC system. Is it just going to be a way to make money, or is it going to be a very interesting kind of democratization of education? That struggle matters, and I don't think it's captured by talking about either acquiescence or resistance. It's more complicated than that.

- L Right, I agree. It seems that distance learning is something that academics are allergic to as a concept.
- D Well, partly because we're so used to the copyright arrangements of the published word, and we're not very used to the struggles over property and pedagogy that are going on over distance learning. What kind of relationship is a good pedagogical relationship? We often have very conservative models of liberal education with no idea what kind of privilege goes into that. By the way, I'm not about to give up face-to-face learning; on the other hand, I took a course from the Cornell University veterinary school last summer on dog genetics that was a distance learning course. I thought the quality of social interaction between faculty and students and among the students was superior to many courses that I've taught at UC, and it made me rethink my rather scolding dismissiveness about distance learning. It doesn't make me a booster, but it makes me much more thoughtful about the creative things that can and are being done under distance learning arrangements. And my colleagues in the humanities often are uninformed about the quality of moral and intellectual engagement, about the possibilities for creativity, about whom they might reach as students. Does that make sense?
- L Yes, it does. As I'm listening to you talk, I'm thinking about a conference I was at last weekend at Brown University entitled "The Archaeology of Multimedia" and hearing conversations about how encouraging or sort of mandating faculty to use the Web more, say, in their instruction, is like a form of speedup, a sort of language for mechanical. . .
- D Yes.
- L And I wanted to bring us back to the idea of cyborg as worker, as worker on the ground. It seems to me that when you look at power you look at people's bodies and see where power is inscribed on people's bodies. Be it in terms of carpal tunnel, or in terms of lower back issues, or in terms of just not getting enough to eat, you know these are basic body issues. I'm wondering to what extent you think academics' apprehension about distance learning is partly that fear of the body again being put into play too much, so that people talk about their fatigue a lot. I think that academics are very keyed into the idea of stress and fatigue being part of their bodily symptom of life in the information age, or however we wish to put that.
- D This is a deeply felt dimension of our lives. I look at our graduate students, and probably more than 50 percent have some fairly serious repetitive stress injury symptoms. You know how widespread it is, and it isn't just office workers, it's the whole array of labor practices. But before I talk more to what you asked directly, let me describe a museum in Vienna I visited at the end of September, a pathology museum, that collected lung samples, lung tissue, late 19th to early 20th century material, and also skin material preserved in formaldehyde and also wax models of

various pathological conditions. Overwhelmingly, the pathologies had to do with the conditions of labor of that period: asbestosis, tuberculosis, diseases of malnutrition, vitamin deficiency diseases, all sorts of lung diseases, just an extraordinary array, linked to poverty and to labor practices. These diseases of course, have not disappeared, particularly outside the so-called first world. Many physicians will come to this museum to study material that they don't see, even in long hospital residencies, in western countries or in Japan, but will see if they're practicing in very poor areas mainly outside the "developed" world, but also in areas of the "developed" world. So that the question of the relationship of the diseases of the body to ways of life is a deep and old one. In relation to informatics, the forms are different, and the distribution of well-being and ill health is different.

- L Right. And that's something I like about your work. Despite so many tendencies around me to dematerialize technology, and to see it as abstract, and not about bodies or about identities in particular, but really about transcending those whole kinds of notions, I think in your work you have strived so hard not to do that.
- D Well, I try.
- L It's frankly depressing to me that I really don't see that effort so much elsewhere, and I really wish I did. I think of it as a sort of sad and telling kind of omission.
- D You were asking about the laboring bodies in informatics, and I think that a deep commitment to understanding what the materiality of linked bodies is in the informatics world means knowing something in depth about how the physical, including the biopolitical, body. This knowledge is more than medical. It is about how well-being and ill health are experienced in all sorts of designing, using, marketing, making, in the whole array of practices that produce these ways of life. We started this little part by thinking about the stress injuries that academics are worried about in the face of speedup, having to spend so much time on the computer as part of academic life now. Computer work such as email has become simply obligatory, for many hours a day for most of us, to the point where we feel absolutely cannibalized. And we're the privileged workers, relatively speaking; even the privileged workers are experiencing tremendous amounts of speedup and ill health and destruction of peace of mind, in relation to these technologies. But that's not all we're experiencing. We're also experiencing the emergence of new kinds of audiences, the opportunities for building a kind of analytical work and performance art into our academic practices. We're experiencing certain kinds of power to design that we didn't know we had, these same workers, the faculty who I'm talking about. How do we take both parts of these experiences and get better control over the conditions of our own labor and ally ourselves with other laboring people? For example, with the secretaries at the UC right now, who face outrageous overwork and underpay. They face speedup worse than we do, on and on; how do we do this in alliance with other working people? How do we see what we're doing as work in alliance with other

kinds of working people? This is about rebuilding a labor movement across the categories of contemporary labor.

- L Exactly. And I think also our students are experiencing the speedup as well. At the California State University they have to take fifteen units a semester, which is five classes, to maintain full-time status, which for many means their scholarships. I mean, they *have* to do that.
- D They have to do it, and you know both the UC and CSU systems now also push students out because there aren't enough places to accommodate the population that has a right to a university education. They are not allowed to take as much time as they might want and take as many courses as they might want. There's speedup of all kinds. Most of them are carrying fairly big debt burdens; many of them have family support obligations. Many, many of them have to work all the way through.
- L What we're preparing them for in a lot of cases is the ultimate speedup which is the start-up company.
- D I know. And you have to change your career twenty times a decade to survive, but that way of living is just not acceptable. And I think that one of the crucial political questions of our historical moment is what kind of organization is going to get back control – not just of the conditions of work but the conditions of life. You know, what sort of political movement-building is going to take on these issues in some kind of a serious way? Because they're not just labor issues; they're whole life issues.
- L Some of the websites I've seen recently have tried to build solidarity among contract workers, free agents they like to call themselves, because in our group which is simultaneously privileged and also had its jamba knocked out from under it in terms of organization, they don't have the face-to-face contact in community that would allow them to even examine some of the practices that they have to undergo, and in that sense, perhaps, they are a little bit like academics who tend to be atomized.
- D Kind of "free agents" but on the other hand it's a whole system of labor.
- L Exactly. I wanted to go back to a comment you made earlier about the Web and how it would be foolish to lose the opportunity to be in on this discourse. In other words, to simply shun it in fear and stay away from it is a terrible mistake.
- D Well, we really don't have the chance. It would be stupid even if we did have the choice.
- L Yes, so on two levels it would be a dumb kind of decision to make. Yet the price you are describing for being in the discourse is high on many levels. In what ways do you think – and I don't mean to speak in cost-benefit terms but certainly more materi-

alist terms – do you think that academics can get the most discourse for the least amount of pain?

- D Yeah, right. Every one of us is struggling with this question in our own little micro worlds.
- L It's not a question you have to answer.
- D Well, I just finished in my own individual life negotiating a 25 percent reduction of my job so that I'm a 75 percent person not 100 percent. A very large part of the reason for doing that was an attempt to open up more spaces in life for something other than work, including friendship, sleep, not being under pressure every minute of every day, which I think is just routine and a fact of everybody's life. Remember Marx; perhaps he's more eloquent on this than anybody. I think perhaps the fundamental issue remains time, struggle for the control of time, and the ability to say these are the conditions of work, these kinds of time commitments make sense – the ability to draw limits and mean it. That means both for students and for faculty, I think, often doing less, resisting the speedup of publication, resisting the constant audit culture ethic that says you always have to do more or you won't get your merit increase. Our career lives from, well, let's say from graduate school on – although it starts before then – are lived in a kind of audit culture moral system, where we're auditing what we're doing along some kind of constant approval axis that is a speedup axis. I experience this as always having to show more stuff. You know, we have to always write and make our students write in such ways as to speedup production. The whole moral system, we impose it on ourselves and our students, even as it is imposed on us structurally.
- L Well, it seems to me to be part of the narrative in which people see their lives, the narrative of progress.
- D It's very much part of that, and a narrative of "If I don't do it, someone else will do it and they'll get ahead of me and I'll lose my job." Or, "I'm a soft-money person"; or "I'm not tenured"; or "I am tenured, but I need to get my promotion." These are not made-up issues; these are real structural issues. We can't just call this approach a neurosis and treat it like a private problem because it's a structural problem. And if Marx argued that the control of the length of the working day was the factory worker's issue in the 19th century, he was quite right. The source of surplus value had everything to do with labor time. I think that remains true, that the source of value production remains the intensification of work in ever shorter periods of time and that somehow or other that's what we need to learn to get a grip on in our academic cultures. You know, how do we ask students to read less, write less, think more? How can open up spaces for ourselves and our students in our daily work practices?

- L Right. Open the spaces and at the same remove the rhetoric of “quality,” which has invaded our rhetorical system, I think, recently as a sort of corporate move.
- D That’s right, and the kind of hurry-up culture which god knows the .dotcom culture and the start-up company is hurry-up culture in spades.
- L Right. And also I’ve heard that described as “just in time delivery.”
- D Yes.
- L Which always makes me think of, “I’m not going to give you any notice but I’m going to ask you for a lot.”
- D That’s right. Well, and the just-in-time warehousing systems, the just-in-time productions, it’s basically a lot of various types of inventory control. It’s being applied to us in a deep cultural and moral way; it’s more than just which parts are available and go on the truck on a certain day. Our lives are being lived in a kind of inventory management for speedup. So I suppose I’m, in this regard, an old-fashioned Marxist – I still think the fundamental struggles are about time.
- L That seems very correct to me, especially in light of Arlie Hochschild’s book *The Second Shift*. It’s time and gender too, I think, time and everything.
- D You know, that gets us back to where we started this whole discussion in terms of the pseudo-universalist categories of “human” and “machine.” Those entities exist in a kind of ideological time that I call the techno-present. It’s a very thin way of thinking about time that loses track of the thickness of history or the complexity of lived time. The techno-present is like the unmarked categories of “woman” or “man” or “machine” or “white” or, for that matter, of color. These pseudo-universals that lose track of the thickness of lived time. The philosophical struggle for what I call situated knowledge, it seems to me, is very closely allied to the practical struggle for lived time.
- L By the way, I think that when we talk about our work it is in terms of always, are you “half-time,” “full-time,” “part-time,” making no reference to the nature of the work a lot of times, or the feeling of the work. It seems that it’s about the techno-present.
- D Right. Exactly. Well, we’ve covered a lot.
- L Yeah, I think this is going to be quite a meaty interview.

section 3

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# **INTELLECTUALS AND THEIR PROPERTY**



## ***Section 3: Intellectuals and Their Property***

### **Introduction**

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*Marc Bousquet*

Will this become possible? Will we one day be able, *and* in a single gesture, to join the thinking of the event to the thinking of the machine? Will we be able to think, what is called thinking, at one *and* the same time, *both* what is happening (we call that an event) and the calculable programming of an automatic repetition (we call that a machine)? [. . . T]o think *both* the machine and the performative event together remains a monstrosity, an impossible event, and therefore the only possible event. But it would be an event that, this time, no longer happens without the machine. Rather, it would happen by the machine. To give up neither the event nor the machine, to subordinate neither one to the other, never to reduce one to the other: this is perhaps a concern of thinking that has kept a number of “us” working for the last few decades. But who is this “us”? Who would be this “us” whom I dare to speak of so carelessly? Perhaps it designates at bottom, and first of all, those who find themselves in the improbable place or in the uninhabitable habitat of the monster.

—Jacques Derrida, “Typewriter Ribbon: Limited Ink (2) (‘within such limits’)”

Like much of his recent writing, Derrida’s essay on De Man touches continually on the problematics of intellectuals (“who is this ‘us?’”) in the context of an accelerating electronic mediation of textuality. Most readers will probably find that the figure of electronic mediation *per se* is approached only asymptotically, by way of such constituent building-blocks as the figure of the typewriter, the machine, the program, or through the various insistent themes of electronic mediation (copying, theft, singularity, the

organic, and the code), etc. This is rather like approaching DNA by way of discourse on the constituent proteins.

Nonetheless, De Man's notion of the "textual event," as redacted by Derrida, offers a path into the world of the intellectual as increasingly structured by property law and the lines of such executive agency as the United Nations' World Intellectual Property Organization (WIPO). Property law borrows from the romantic ideology of textual creation, which features the artist as the performer of a non-reproducible event. Without any sense of irony, property law seizes upon the singularity that associates author with event in service of the practice of reproduction: property law insists on the uniqueness of the creative act in order to legitimize (the sale of) copies. As De Man comments with respect to the act of theft in Rousseau's *Social Contract*: "There is nothing legitimate about property, but the rhetoric of property confers the illusion of legitimacy." The rhetoric of property depends upon keeping the unique "event" fundamentally distinct from the act of reproduction, and yet simultaneously permanently *connected* to each other: by conferring the "illusion of legitimacy," the rhetoric of property materializes itself in the form of profit. In this sense, capitalist accumulation depends on the contradiction between the need for universal exchangeability (i.e., the pressure for all things and experiences to be reducible to money equivalents), and a rhetoric of singularity (this-unique-I owns this-unique-thing which unique-you may purchase).

But texts are never unique in their origination, being social products of a general or community intellectuality (so that we can speak of "the Romantic poets" as a group or the presence of Chartist ideas in their writing, whether they intended to confront Chartism or not). Nor are texts fully equivalent in their various iterations, so that we can speak, for instance, of each reading as itself a re-writing, so that the text continuously slips away from its author. Indeed, texts are continuously slipping away not just from the intentions of their authors, but also the best plans of editors, scholars, publishers, educators, and all the lines of authority that would conserve meaning at some point of origin. Beneath the markings on the page, human agency continuously shifts the meanings of language itself, so that no text can ever mean what it meant at some other time. Think, for instance, of the continuous changes that general social activity makes in such seemingly-fundamental keywords as "citizen," "person," "rights," "prosperity," "man," "woman," "child," or "health."

The moment of textual origination (as a unique event) is always an encounter with the "machine" or program of meanings in social circulation. Likewise, the machine of textual reproduction & distribution is never distinct from the unique, plural eventualities of reception. Distinct encounters with individual readers produce difference in the "text itself." The capitalist economy of intellectual property can't account for the "labor of consumption" in adding value to cultural capital. Nor can it account for the continuous production of new meanings through general intellect: what rights does society have in "intellectual property" as a result of its continuous activity in editing all texts by way of the minute-by-minute transformation of language itself? The reading of a text,

the alteration of the meaning of a word employed by a text, the clipping or cutting from a text: all of these are as much of a “textual event” as the “original” act of inscription. Which is to say: the “machine” and the “event” are always together.

But if the social machine and the textual event are inextricable, why should it be so hard to think of them that way?

The property regime insists upon the illusory separation in order to project a false re-connection. The system of ownership must manufacture an authentic “original” (with falsely total property interest) in order to have “copies” with contractually limited property interest. Never mind that the notion of “originator-therefore-owner” in the context of intellectual property forecloses an accounting of social contributions in the same way that saying Columbus “discovered” America forecloses our understanding of the hundreds of complex societies occupying the continents that he washed up against. In both cases, the lie of “discovery” has the same function – supporting the system of ownership advanced by the owning class, over and against everyone else. The same ideology of discovery is what makes it possible to patent a human gene. With the rich support of the state and the collaboration of education and the press, the lie of “discovery” almost completely occupies the realm of common sense; to think otherwise about intellectual activity is literally to enter, in Derrida’s words, “the uninhabitable habitat of the monster.”

So we come to the present at the juncture of two contradictory vectors. The ubiquity of electronic mediation has pressed us further toward the task of theorizing the event “that no longer happens without the machine,” far nearer to Mark Amerika’s 1997 *Grammatron* than the author of the 1967 *Of Grammatology* could have supposed more than three decades earlier. Still, an equally unanticipated intensification of property law has emerged in the joint effort by transnational capital and the state to make thinking the relationship between event and machine far more monstrous than ever before.

The task of the moment, then, is to think the event “that would happen by the machine,” to think the return of the repressed social content of intellectual property in the form of materialized direct action by all those who produce, directly or indirectly. This means, at least in part, recognizing in the figure of “the machine” the reification of the human mass, and seeking in the machinistic event the mass intellection of the producing class. To an extent, this event is not so much a seizure of the means of (knowledge) production, but rather a recognition that the producing class already possesses those means.

Mark Poster leads off the section by exploring the desire of the state to control the deployment of technology (and technologically mediated speech), and then pursues the limits of capitalist and nation-state domination of the medium, tracing in Internet culture many of the qualities of non-commodified culture, especially popular self-consciousness of people themselves as culture producers. Describing “the way culture was experienced before modern capitalism,” Poster notes that “the performance of culture was most often the rewriting or recreation of culture, with no two communities experiencing exactly the same art.” There is for Poster a certain structural irony in that the

proliferation of storage space helps to create multiplicities of cultural iteration similar to those created by earlier historical moments in which unique re-iterations were encouraged by the opposite circumstance, of an *absence* of storage materials.

Tracing the increased powers of intellectual property owners to police the rest of us, Kembrew McLeod explains some of the newly-enhanced rights of patent, trademark, and copyright, as well as completely new law, such as the “right to publicity,” through which public persons acquire rights over how their images are used. The owners’ impulse to control ranges well into the absurd – as when the Bush campaign paranoically registered dozens of potentially hostile domain names (bushsucks.com, bush-sux.com, bushblows.com, etc) to itself, sending visitors to these addresses to its official campaign site. Laws supporting the privatization of culture for profit also serve the purpose of subduing critique, as when strengthened trademark laws (which have no “fair use” provision, as in straightforward copyright law) are employed by corporate owners to harass Web authors to remove images, corporate logos and even corporate names from websites critical of their activities. In order to highlight the absurd extremities to which IP police powers have been extended, McLeod took out a trademark himself – on the phrase “freedom of expression.”™ He owns it. You do not.

The efforts of absurdist media pranksters such as ®TMark are the subject of Caren Irr’s essay, which seeks to describe ways in which their efforts to use the system of socio-ideological reproduction to send new messages can be linked to a more capacious opposition to dominant forms of property relations more generally. Acknowledging the power of these parodic appropriations to “turn corporate ossification of social life into the content of Web-circulated critiques,” Irr studies the way that these parodies can themselves be absorbed into the IP regime.

Capitalism has long had the power to commodify even the most virulently anti-capitalist culture, perhaps never more than at the present, with Janis Joplin’s anthem being used to sell Mercedes cars, and Chinese workers under Beijing’s state capitalism putting in 14-hour days to make Communist souvenirs for Western tourists. Tara McPherson’s conversation with Anne-Marie Schleiner acknowledges that the “feeling of volition and control” and “illusory promises of transformation” sought by purchasers of commodified culture such as video games can be seen as a “seduction” and as “corporate strategies of narrative and structural address.” But she goes on to discuss some of the ways that hacktivist interventions at the level of code, in game patches or mods, represent at least the potential for hijacking the commodity form, a possibility that needs to be considered within the limits represented by the “avowedly nonpolitical” stance affected by most participants in gaming culture.

Paul Collins examines some of the ways he struggled with one corporate university’s expropriation of his labor. Harvey Molloy’s interview with George Landow explores the role of academic and commercial interests in elevating one “impoverished form of hypertextuality” (the Web) over much more capacious systems. Tracing in HTML and SGML the movement *away* from dynamic versions of digital textuality, Landow describes in the success of the Internet the success of a medium “suited chiefly to static

texts that are created, formatted, and frozen.” Enforcing a textuality suited to commercial activity and commodified intellection, the Web makes “maintaining a dynamic website very time-consuming and therefore expensive,” increasingly limiting advanced forms of Web-mediated expression to those who can afford them. Exploring the Web’s possibilities for getting beyond some of the boundaries of discipline and genre in academic research and collaboration across international and disciplinary borders in such projects as his own *Victorian Web*, Landow is also cognizant of the need for those who would own their own expression to also own the material base of that expression, as in the case of students of wealthier nations who get around university censorship by maintaining their own servers.



# What's Left: Materialist Responses to the Internet

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*Mark Poster*

As the Internet developed greater and greater capabilities, from the mid-1980s onward, social and cultural critics began to speculate about the possibilities for democratization inherent in the new technology. After all, the Internet is, unlike the telephone system, highly decentralized and, unlike broadcast media, bi-directional, and, above all, unlike all previous communication technologies, affords many-to-many links. In addition, the Internet has embedded within it copying and archiving abilities. These capacities pertain to the digital format of Internet communications, rendering copies cheap and exact, storage invisible and long-lasting. It also maximizes the openness of the connection. Anyone online can in principle connect with anyone else. Further, it follows no border demarcations: one can communicate as easily from Los Angeles to Bangkok as from Los Angeles to San Francisco. Again, unlike most previous communication technologies, it is very difficult to regulate by the nation state. The postal system, telegraph, radio, and television all had territorial roots or posts that could be controlled by government officials. Not so with the Internet, which requires only a computer, modem, and protocols for a connection, one that once made allows any point to connect with any other due to its web-like structure.

Despite these technical capabilities, governments and their agents as well as corporations have striven to curtail the openness of the Internet in the interests of preserving the constraints inherent in their structures. Nation states, from the United States to China, have attempted to limit the ability of individuals to connect with each other in an unrestricted manner. The FBI attempts to monitor Internet exchanges in search of "terrorists"; China endeavors to restrict usage so as to prevent criticism of its policies; France wants all French websites written in the French language; Germany bans neo-Nazis on the right and xs4all, a Dutch anarchist group, on the left. Mexico would love to eliminate Zapatista sites; Singapore does not want gay/lesbian or erotic sites accessed by its citizens. Corporations want security for financial transactions, hoping to connect machines to users through biological signature systems. Businesses resent employees using their computers for personal email and games, claiming the right of property over

workers' online activity. Internet Service Providers introduce monitoring and even censorship of chat rooms. Universities attempt to restrain the exchange of MP3 files by students, staff, and faculty. Nevertheless, the structure of the Net and the practice of many of its users easily defy the authority of governments and corporations.

What was surprising to me during the 1990s was not that some writers, extrapolating from these technical features, concluded that the Internet would produce a revolution. It is true that certain authors did draw this conclusion. I am thinking of diverse figures such as Nicholas Negroponte of the MIT Media Lab, John Perry Barlow, co-founder of the Electronic Frontier Foundation, and Pierre Lévy, a student of Giles Deleuze in France and author of numerous books on new media. In varying degrees of sophistication, these writers depicted social betterment as a direct consequence of the introduction of information technology. They accounted far too little for the incursion into that technology by existing institutions such as the capitalist economy and the nation state. Perhaps some of my own work might be included in this category (Poster, *The Second Media Age*, 1995).

But as I suggested above what surprised me was not this form of utopianism, insofar as it has been a consistent trend in Western thought since the introduction of the telegraph. What really surprised me was the extent to which critical social theorists tended to ignore the technology, almost completely, and simply assumed that capitalism and the state would totally take over the new communications facility. I find this most surprising because writers of this stripe often saw themselves within the Marxist tradition and Marx was always careful to examine the ways social innovations worked

both in the direction of supporting existing institutions and in challenging, indeed even undermining them. Surely no starry-eyed idealist, Marx was ever vigilant for tendencies (in technology, in social organization, even in law and intellectual life) that resisted absorption within the existing power structure. He even went so far as to lend a kind of support to noxious happenings, such as the destruction of the Indian cotton industry, because they furthered the historical possibilities of socialism. The suspiciousness of so many social critics toward the Internet struck me therefore as deeply wrong-headed.

Examples of the anti-technology position are found across the board of social criticism. Feminist writers bemoaned the maleness of computer technology, even though by the end of the decade more women than men were online. Susan Herring, for instance, has studied extensively the language in Internet chat rooms and bulletin boards, making note of the persistence of sexism (Herring 1993). But she does not compare these conversations to incidence of sexism in face-to-face relations and she does not examine the effect of gender-switching on educating men about sexism. All too readily feminists like her are quick to find the new technology replicating old social patterns. Of course, one could list other feminists such as Sadie Plant who discover even essential women's characteristics in cyberspace (Plant 1996).

Post-colonial critics were also quick to complain that those online were assumed to be white (Nakamura 1995), so that the Internet simply reproduces the racism extant in

the “real” world. The inequitable distribution of the net, with Africa barely in the loop and South America seriously under-represented by backbones and sites in general, is certainly a problem. Yet again by the end of the decade non-Americans online at least outnumbered Americans, not of course the same as racial categories but pointing to the inevitable diversity of the Internet. Too often anti-racial theorists dismiss the new media rather than organize political resistance against its current Western dominance. Too often the cry of imperialism is raised when this relatively cheap technology might become available widely and reconfigured by those who object to Western ways of doing things.

And Marxists had a field day with the spread of corporate web pages, the soaring prices of high technology stocks and their subsequent collapse, the proliferation of online retailing, the general shift of stock markets to cyberspace. For these writers, it was obvious that the Web was a new device to make the rich still richer and the poor still more exploited. Take for instance the collection edited by Gretchen Bender and Timothy Druckery containing essays by many prominent Marxists such as Herbert Schiller and neo-Marxists such as Stanley Aronowitz. In the Introduction to the volume, Druckery writes, “The goal of this project is to frame a critique of technological reason, to deconstruct the mythology that technology is a panacea. . . . we have attempted to position technology as a cultural form as prone to manipulation. Its effects, though, are potentially more insidious and its privatization more alarming” (Druckery 1994, 12). What I find so disappointing here, in a volume that appeared in 1994 and represents one of the first responses by the left to the mass usage of the Internet, is that the authors theorize the technology as if it were being defined intellectually only by advertisements and other corporate propaganda. “Critique” here is no more sophisticated or intelligent than complaint. Druckery’s “critique of technological reason” ought to have adhered more carefully to its Kantian heritage and defined critique as the *limit* of a phenomenon. It should capture aspects of the phenomenon in question, new media, as possibilities as well as impositions from above. If the utopians failed to consider deeply enough the impact of existing institutions on the Internet, these left critics failed equally to observe the characteristics of the technology that might not so easily be assimilated into the belly of the prevalent beasts. Of course, there were many other Marxist critics who took more nuanced approaches: for every Dan Schiller who denounced “Digital Capitalism” as just one more bourgeois swindle, (Schiller 1999) there were others like Nick Dyer-Witheford, who present relatively balanced accounts (Dyer-Witheford 1999). My point is not that unrelenting critiques of new technologies are not useful: they are important in combating media hype and huge advertising budgets. The problem is that restricting the analysis to this outraged impulse, while understandable, actually works to restrict the options for resistance and rhetorically paralyzes the will to find beneficent applications. In a strange way, critique, at this level, becomes a kind of opiate.

After all there were lots of signs of media use in oppositional and even revolutionary contexts: from Tiananmen Square to Eastern Europe, from Bosnia to

Chiappas, from Seattle to the global anti-Iraq war mobilizations, reform movements availed themselves of cheap communication systems to get the word out, to organize, to petition, to glean support, financial and otherwise. In fact, the media were, at a global level, becoming part of every international event.

Politicians across the globe now were compelled to consider how their actions would appear not only to local populations, which might be controlled ideologically with relative ease, but to the world at large which now could witness the most obscure events. Right wing organizations, such as neo-Nazis, had access, of course, to the same technology.

Another phenomenon more strictly associated with the Internet that the left might have noted was the empowerment of youth and subordinated voices more generally that accompanied the spread of cyberspace. With apparent ease, hackers in their twenties were able to bring vast organizations to their digital knees. I need not rehearse the history of computer viruses, worms, Trojan horses, and invasions of all sorts perpetrated by graduate students, frustrated loners, teenagers out for a lark. Without exaggeration, one might say that never before in history had youth such power to threaten and to disturb the world's most powerful institutions. In addition a great many of the basic features of the Internet originated from young people in their twenties:

Usenet, MUDs, MOOs, e-mail programs, file transfer protocol, web browsers, and so many others were invented by people essentially without authority. The example of the French Minitel comes to mind. While French Telecom created and distributed for free computers instead of phone directories, and imagined this would be financed by selling services online, such as train schedules, a young man in Strasbourg developed a message program that quickly overtook all other functions of Minitel in popularity. (Marchand, *La Grande aventure du Minitel*, 1987) To the astonishment of the French administration, people preferred the *méssagerie* to government sponsored databases.

Then most importantly there is the challenge to copyright and the culture industry engaged in daily by millions of (mostly young) people across the globe, willfully, impudently and with impunity, violating the interests if not the law that allows capital to control culture. The file sharing of music, vastly enhanced by a nineteen year old programmer, Shawn Fanning, who wanted to exchange songs with his friends, and the defeat of copy-protection on Digital Video Disks by a fifteen year old Norwegian, Jan Johansen, aroused outrage among leaders of the culture industry such as Jack Valenti who are pursuing remedies in court. But the courts will not likely be able to settle this matter because it goes to the heart of the way culture in the West is produced and consumed.

Networked digital technology has rendered obsolete the industry that copies and distributes cultural objects. This enables a more direct relation between artists and audience and calls for the elimination of capital-intensive interests in the control of cultural production. New functions will of necessity arise such as editors and disk-jockeys who can match artist and audience. But there is a further implication to networked computing that is not often mentioned in heated discussions of Napster and DeCSS. A quali-

tatively new kind of culture is promoted by networked computing, one in which cultural objects like films, novels and songs are created not by a single or collective author but continuously by everyone who comes into contact with the work.

Digital computing allows an audience to transform a work and pass it on, in its new state, to many others. Utopian, you think? Actually, this was the way culture (for example, the folk song) was experienced by all people before modern capitalism.

The performance of culture was most often the rewriting or recreation of culture, with no two communities experiencing exactly the same work of art. In the absence of storage materials, artworks, from *The Odyssey* to *Little Red Riding Hood*, were performed from memory in various communities. The exception is the fixed work of art, such as one finds in books and paintings. But that too was a function of technology, constructed in mediation with law and politics, of course. The Internet enables a return at a new level of this sort of popular culture, enables but does not determine, is necessary but not sufficient.

Since we have learned from the Frankfurt School how devastating the culture industry is for working class and other democratizing movements, it behooves us to understand the potentials of the technology, to learn how they may be deployed in constructing cultural forms more appropriate to a democratic lifeworld, and not to become obsessed with every outrage perpetrated by the ruling class. Such an attitude of creative appropriation is encouraged by the discourse of cultural studies and by countless artists and creators across the globe. Certainly cultural critics need to attend to the moves of the establishment, but we must equally be sensitive to possibilities for democratization. Too often, it seems to me, critics perceive new trends through the lenses of ideology critique, through the categories of suspicion that make us aware only of the most obscure and least important abominations of the powers that be. Instead I urge a sense of fluidity in political choice and organizational potential.

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# Intellectual Property Law, Freedom of Expression, and the Web

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*Kembrew McLeod*

Intellectual property law is a key variable that helps drive the so-called “new economy.” Without the legal and economic protection that intellectual property law provides, companies would not have had the confidence to adopt a new business model in which intangible, easily reproducible goods and services have become among the most important things that are sold. Strong intellectual property protection is extremely important for companies operating within this new economic landscape, and they do not take kindly to others who – without authorization – use companies’ trademarked, copyrighted and patented goods (in the case of celebrities, their images are protected by right of publicity law).

The issues surrounding both the Internet and intellectual property law are numerous and extremely complicated. In this essay, I will focus only on the use of intellectual property law by corporations to restrict freedom of expression.

Trademark law is increasingly being deployed to police how corporate logos are being used on the Web. This is significant because trademark law has no formally written “fair use” provision that is analogous to copyright law. Corporations and the courts don’t view the corporate trademarks that litter our cultural landscape as culturally rich signifiers that can be used to help make sense of the world. Instead, they are viewed as private property first and foremost, and any attempts to use these trademarks in ways that property owners don’t approve can result in costly lawsuits.

In order for people to comment on, critique, or fawn over the subject of a site, Web authors reproduce trademarked and copyrighted images. Although there are numerous websites that haven’t had legal problems, those sites that go beyond simply promoting a television show, movie or fictional character and which are critical of their subjects often raise the ire of a corporate trademark owner. Copyright law is also being used in much the same way and, despite the “fair use” provision in the law, companies have been successful in shutting down types of expression they do not approve of because the cost of litigating a copyright infringement lawsuit is extremely high. In other words, when faced with the possibility of a lawsuit, potential infringers often choose not to risk a

costly legal battle and, instead, decide not to engage in an activity that would bring the wrath of a corporation with a well-financed legal department.

The Internet is commercially-mediated terrain. As more and more of our interactions are mediated electronically and cultural texts are routinely distributed online, we are increasingly exposed to the policing powers of intellectual property owners. That is, when we create new cultural texts (and engage in everyday interpersonal discussions), we often reference existing cultural texts to convey certain meanings. In doing so, we cannot help but use privately owned signifiers when engaging in cultural production – signifiers that are copyrighted and trademarked by very protective corporate entities who care little for protecting freedom of expression.

My use of the phrase “freedom of expression” has a double meaning, because I successfully trademarked the phrase. After developing an academic interest in intellectual property law, I grew increasingly concerned with the way in which copyright, trademark and patent laws were being used to gobble up things that had previously been assumed to be in the public domain. Pharmaceutical companies, for instance, have patented the human genes associated with diseases and common phrases like “home style” have been trademarked by the food company Mrs. Smith’s, which threatened to sue Mrs. Bacon (the owner of a small St. Petersburg, Fla. bakery) for her unauthorized use of the phrase.<sup>1</sup>

As a kind of socially conscious prank, I applied with the U.S. patent and trademark office to register “freedom of expression” as a trademark, and in 1998 I received a certificate that stated that I was the proud owner of the mark. It was registered only under Class 16 of the international schedule of classes of goods and services, which covers, generally, “printed matter” and the like. But even though I can’t prevent someone from using the term in *all* situations, I can still sue for the unauthorized use of “freedom of expression” in *some* contexts – an irony that amuses (and scares) me to no end.

Regardless of how one feels about the ethics of manipulating the media, I have found media pranks to be an effective, interesting, and unconventional ways of engaging in cultural criticism beyond the limited scope of academia. Employing the services of my old high school prankster friend Brendan Love, who posed as the publisher of a fictional punk rock magazine also titled *Freedom of Expression*, I started to lay the groundwork for my plan. To add legitimacy to this potential news story, I hired Attorney at Law Joan R. Golowich (who did not know this was a joke) to send a letter ordering Brendan to cease and desist his use of the phrase. Before I had my first meeting with Ms. Golowich, my boss at Amherst College Library, Margaret Groesbeck, declared, in the same words someone else used a few years earlier, that this lawyer would “laugh me out of her office.” Thankfully, I learned that intellectual property law is entirely humorless, and after informing Ms. Golowich of my intention to sue someone for using freedom of expression® without permission and after she examined my documents, she confidently told me that we had a case and that she would draft a letter to Mr. Love immediately.

I made copies of the letter and my trademark certificate and sent them, along with a press release, to local media. The point of this particular media prank was to “play it

straight” and never let on to a reporter my intention to engage in social commentary – I would let the news story itself do the talking. That is, rather than someone reading a quote from me stating “I’m concerned with the way intellectual property law facilitates the appropriation of significant aspects of our culture by corporations . . . blah blah blah,” I wanted to orchestrate the story in a way that newspaper readers would come to that conclusion on their own. I did my best to sound serious when a woman with a wonderfully rhyming name, Mary Carey, interviewed me on behalf of the *Daily Hampshire Gazette*.

The story, which fittingly appeared in the Fourth of July weekend edition on the local section’s front page, was cleverly titled “Freedom, an Expression of Speech.”<sup>2</sup> Carey did a good job of writing a balanced, “objective” story by interviewing both Brendan and myself, but it was nonetheless slanted in the direction of highlighting the absurdity of someone being able to own freedom of expression®. The article closed with the following poker-faced quote from myself, “I didn’t go to the trouble, the expense, and the time of trademarking Freedom of Expression just to have someone else come along and think they can use it whenever they want.”<sup>3</sup> Unfortunately, the *Daily Hampshire Gazette* refused to give me permission to reprint the article.

## DISTINCTIONS BETWEEN INTELLECTUAL PROPERTY LAWS

Copyright, trademark, and patent law protect different types of cultural expression or information. They have emerged out of distinct histories, but people tend to use them interchangeably. For instance, in different parts of the *Daily Hampshire Gazette* article, the reporter referred to freedom of expression® as both a trademarked and a patented good. For her, the newspaper readers, and some readers of this book, these two terms might mean the same thing, but they are certainly not. So to alleviate any confusion, I will provide a very brief overview of patent, copyright and trademark law in the U.S., as well as the body of law that protects celebrity images – the right of publicity.

**Copyright Law.** *Copyright applies to all types of original expression, including art, sculpture, literature, music, songs, choreography, crafts, poetry, flow charts, software, photography, movies, CD-ROMs, video games, videos and graphic designs.*<sup>4</sup> Copyright only applies to literal expression, and not the underlying concepts and ideas of that expression (that is, you cannot copyright an idea).<sup>5</sup> The difference between an idea and the protected expression of that idea highlights the way Enlightenment and Romantic concepts of originality and authorship are deeply embedded in contemporary copyright law, a subject I will return to later.

There is a strong connection between the rise of capitalism, the invention of the printing press, and the commodification of literary and artistic domains, and copyright law was the first piece of legislation to arise from the collision of the above-

mentioned concepts.<sup>6</sup> In 1710, Britain passed the Statute of Anne, which was akin to modern copyright law, and in 1790 the U.S. Congress passed a similar law long before most major European countries. This is not surprising considering the fact that an early draft of the Declaration of Independence sought to protect life, liberty and “property” rather than “the pursuit of happiness,” as in the well-known phrase contained in the final draft.

Copyright owners are extremely powerful and have at times flexed significant lobbying muscle. For instance, until 1998 the period of copyright protection lasted for the life of the author plus 50 years unless the creator was a business in which case the period of protection lasted for 75 years. But many of The Walt Disney Company’s most lucrative character copyrights were due to lapse near the turn of the century, with (horror of horrors!) Mickey Mouse passing into the public domain in 2004, and Pluto, Goofy and Donald Duck following suit in 2009.<sup>7</sup> Disney, along with the Motion Picture Association of America (MPAA), heavily lobbied Congress to pass legislation to extend copyright coverage for an extra 20 years, which Congress did.<sup>8</sup>

*Trademark Law.* As a form of intellectual property law, trademark law developed from a body of common law that was concerned with protecting commercial marks from being misused and misrepresented by competing companies.<sup>9</sup> Trademark law is also a federal statute and it grew out of nineteenth century court decisions surrounding “unfair competition” business practices. Trademark law is concerned with how businesses may “identify their products or services in the marketplace to prevent consumer confusion, and protect the means they’ve chosen to identify their products or services against use by competitors.”<sup>10</sup>

Among the things that can be trademarked are distinctive words, phrases, logos and graphic symbols used to identify a product or service. Examples include MacDonalD’s golden arches, Prince’s gender-bending squiggle symbol, or Kraft Real Cheese. Trademark law is not simply limited to protecting symbols, logos, words or names; it also covers shapes, sounds, smells, numbers and letters. (In 1997, hip-hop star Warren G sued country star Garth Brooks for the unauthorized use of the lower case letter “g,” which he had trademarked.)<sup>11</sup>

*Patent Law.* *Patent law protects from unauthorized commercial use certain types of inventions registered through the PTO, which grants three types of patents. The first, utility patents, are granted to useful inventions that fit into at least one of the following categories: “a process, a machine, a manufacture, a composition of matter or an improvement of an existing idea that falls into one of these categories.”*<sup>12</sup> The second, design patents, “must be innovative, nonfunctional and part of a functional manufactured article”; a bottle or flashlight design that doesn’t improve functionality would qualify.<sup>13</sup> A plant patent, the third type, “may be issued for any asexually or sexually reproducible plants (such as flowers) that are both novel and nonobvious.”<sup>14</sup> This last type of patent covers living matter and is relatively recent, the product of a 1980 Supreme Court decision that ruled that an applicant could patent a genetically engineered bacterium.<sup>15</sup> This type of patent expanded,

by the mid-1990s, to include human genes, cell lines, proteins, genetically engineered tissue, and organisms.<sup>16</sup>

Right of Publicity Law. *The oddball in this list, right of publicity law, evolved from legal principles different from copyright, trademark and patent law. Nevertheless, right of publicity, which protects celebrity images from being appropriated in a commercial context without permission, functions in much the same way these other intellectual property laws do. Like trademark law, it does not have a “fair use” component written into law, thus making it easier for celebrities to regulate the contexts in which their images appear. Right of publicity law descends from right of privacy law, and it came into existence to meet a particular social and economic need that developed over the twentieth century. Raymond Williams has argued that the logic of capitalism necessarily requires previously untouched areas of cultural activity to be brought into this web of commodity relations. The transformation of right to privacy, a non-proprietary law, into right of publicity, a proprietary law, is an example.*<sup>17</sup>

The trademarking of important cultural texts is very significant because, unlike copyright law, it has no formally written “fair use” statute. To briefly explain, “fair use” evolved from court decisions that recognized the fact that absolute control of copyrighted works would circumscribe creativity and, perhaps more importantly for elite lawmakers, limit commerce.<sup>18</sup> The “fair use” statute recognizes that, in certain contexts, aspects of copyrighted works can be legally reproduced, and it allows for the appropriation of copyrighted works for use in, for instance, “criticism, comment, news reporting, teaching . . . scholarship, or research,” according to the 1976 US copyright statute.<sup>19</sup> Fair use may apply to a variety of other situations not listed above, and in determining whether a work is fair use, the U.S. Congress outlined the following four factors:

- (1) The purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes
- (2) The nature of the copyrighted work
- (3) The amount and substantiality of the portion used in relation to the copyrighted work as a whole

The effect of the use upon the potential market for or value of the copyrighted work<sup>20</sup>

The “fair use” statute was written in order to, in part, protect freedom of expression, but because trademark law has no formally written “fair use” provision that acknowledges privately owned images as culturally rich signifiers, it opens citizens up to a newly emergent form of censorship. I will illustrate this with an example. As much as some televangelists may have desired it, Jesus Christ cannot be trademarked. Without any intellectual property protection for Jesus’ image, churches cannot suppress the presentation of artist Andres Serrano’s *Piss Christ* – the controversial photograph of a crucifix submerged in a glass of urine – in the same way that Disney can legally enjoin an offensive work of art that appropriates its trademarked characters. Just as it is impossible for Christian churches to trademark the image of Jesus Christ, it is unthinkable that the

Bible could be copyrighted. However, the Church of Scientology – a religion that emerged in the age of intellectual property law – copyrighted its religious writings, and it has filed numerous copyright infringement lawsuits throughout the past few decades to maintain control over the context in which those writings are presented.<sup>21</sup>

## INTELLECTUAL PROPERTY LAW AND THE INTERNET

In recent years, the Internet has been a place where Scientology dissidents have organized and traded information, and many of the online critiques that have used Scientology's copyrighted and trademarked images have prompted intellectual property lawsuits.<sup>22</sup> For instance, in 1996 a judge ruled in favor of the Church of Scientology when a critic of the Church published copyrighted Scientology writings on the Internet as part of an ongoing discussion among church dissidents. Giving an example of a person who wants to engage in a critique of Christian religious beliefs needing Bible text to work from, one defendant's lawyer unsuccessfully argued that the use of the copyrighted documents were necessary to engage with and debate the Church of Scientology's ideas.<sup>23</sup>

The Church of Scientology has won numerous copyright cases against those who have critiqued the Church, and its court battles pertaining to the Internet helped set the first precedents concerning copyright and cyberspace.<sup>24</sup> The Internet is an increasingly significant venue where individuals can also use celebrity images to help make meanings and build communities among people with common interests. It is also a site where celebrities have intervened to shut down uses of their image they do not approve.

Celebrities are not the only ones who have intervened to shut down web sites; corporations that produce various cultural texts (television shows, motion pictures, etc.) have forced fan web sites to remove copyrighted and trademarked materials. The Fox network has vehemently protected its intellectual properties, and was one of the first television networks to pursue legal threats and actions against infringers in the early days of the Internet. Early on, they sent cease and desist letters to *Simpsons* sites and, notably, sites devoted to the *X-Files*. This angered many fans who felt that the success of the fledgling show (created by Chris Carter) was due in part to the early support and buzz created by the Internet.<sup>25</sup>

Many times corporations that want to eliminate unauthorized uses of their intellectual properties want to control the context in which their copyrights and trademarks are exhibited, particularly when shown in an unfavorable context. In other instances, companies are driven by a simple desire to protect their own investments. A college student, Gil Trevizo, launched a web site devoted to another Chris Carter-created show, *Millennium*, before Fox itself had launched its official site, which cost \$100,000 to create and which the network planned to debut on the Web the night the show premiered. The studio balked and sent Trevizo a letter from the legal department threatening a lawsuit unless all copyrighted and trademarked materials were removed from the site.

The student, forced to comply with Fox's demands, stated, "They don't understand an active medium where you have to interact with people as a community, rather than purely as customers."<sup>26</sup> This prompted an e-mail "flame war" against the studio, with one perceptive fan, Lori Bloomer, arguing, "If you look at the official sites, they tell you exactly what they want you to know."<sup>27</sup> She continued, "It is becoming clear that this is not just a matter of either copyright or trademark . . . but that Fox execs want complete and total control over how every facet of their company is portrayed on the Internet."<sup>28</sup> With the numerous site closings, some site operators satirized Fox's actions by playing on instantly recognizable lines from the *X-Files*: "They're shutting us down, Scully" and "Free speech is out there."<sup>29</sup>

Jill Alofs – the founder of Total Clearance, a firm that specializes in multimedia and Web site clearances – stated:

An individual fan may create a site and not think that they are doing anything bad, but that is not necessarily the case in the eyes of all entertainment companies. . . . The entertainment companies want to have a sense of control over their properties, and often these Web sites do not fit in with the marketing and imaging that companies want to present.<sup>30</sup>

Of course, fan sites are not the only worry of corporations; even more troublesome is the targeting by IP-owning corporations of sites that criticize them. Increasingly, companies are using trademark law to silence criticism because of the law's lack of a formally defined "fair use" provision. For instance, a former employee of Kmart, Jim Yagmin, began a "Kmart sucks" site in 1995, where the teenager painted an unflattering portrait of his former employer.<sup>31</sup> Yagmin then received a threatening letter from Kmart's lawyers ordering him to: "(1) Remove the icon 'K' and any appearances of 'K' with the likeness of that used by Kmart, including the red Kmart and the blue and gray Kmart sucks. (2) Remove the name Kmart from the 'title' of any page. (3) At the bottom of 'The Eternal Fear' page remove the lines 'Go steal something from Kmart today, and tell em Punk God sent ya'."<sup>32</sup>

Kmart spokeswoman Mary Lorencz stated: "We monitor the use of our trademark everywhere, including cyberspace. . . . We've spent a great deal of time and money creating a positive image for it, and it's obviously important to us."<sup>33</sup> Despite the fact that Yagmin replaced the Ks with Xs, the modification was not enough for his nervous Internet service provider, which told him the site would have to be removed completely.

In another example of the way in which intellectual property law is used ideologically, Zack Exley, a University of Massachusetts-Amherst graduate student, registered the unclaimed domain names "gwbush.com," "gwbush.org," and "gbush.org." In 1999, he set up a satirical web site, a sort of "parallel universe" Bush campaign site. The same year the Bush campaign sent Exley a letter threatening to sue him if he continued to use their copyrighted and trademarked images on his site. He promptly removed the

images, though the content of the site still remained critical of the Bush campaign. Exley's actions pushed the campaign to buy 260 other domain names, including the hilariously paranoid registering of such addresses as "bushsucks.com," "bushsux.com" and "bushblows.com."<sup>34</sup> (If you type in the domain names bushblows.com, bush-sucks.com or bushbites.com, it sends you directly to the official Bush-Cheney web site. In fact, many derogatory adjectival combinations will send you to the campaign's web-site – try it, it's a great party trick.)

At the time, Bush could do nothing about Exley's registering of these domain names, but since then it has become easier for famous people to secure control of a domain name that mirrors their own name. In 2000, pop singer Madonna won a case in front of the United Nations-affiliated World Intellectual Property Organization, in which she sued a porn site operator to transfer the domain name to the singer. WIPO's fast-track arbitration system has allowed corporations, music groups and celebrities to gain control of domain names that they argue were registered in bad faith. WIPO has ruled in favor of, for instance, Julia Roberts and Jethro Tull (which, of course, is not a person, but a band name).<sup>35</sup> Among other eyebrow-raising decisions, the panel also ordered the domain name Corinthians.com, a site devoted to the Bible, to be transferred to a Brazilian soccer team of the same name.<sup>36</sup>

By 1999, trademark law had expanded to protect this previously untouched aspect of the Internet.<sup>37</sup> Numerous courts have found in favor of trademark-owning companies in "cyber-squatting cases." "Cyber-squatters" are those who have registered domain names that echo the trademarks owned by a company, such as the name "DonaldFuck.com." Sally M. Abel, International Trademark Association board of directors member, stated: "Courts as a whole are bending over backward to respect trademark rights . . . . [The courts] appear to have accepted that this is a commercial medium."<sup>38</sup> That is, because the Internet is a site of commercial activity, the conception of trademarks purely as property should win out over the idea that they are important texts that can be used to engage in discourse about contemporary life.

At the end of 1999, trademark-owning corporations won a major lobbying victory when the U.S. Congress passed the Anti-Cyber Squatting Consumer Protection Act, which ensures penalties of up to \$100,000 for people who use trademarked names in their domain names (such as "CokeSucks.com," etc.).<sup>39</sup> In the wake of the passage of this bill, companies have been particularly aggressive in pursuing legal action against those who incorporate their trademarks into domain names.

In 2000, a judge from the Southern District of New York ruled in favor of Mattel, Inc. in a case involving a porn site that had registered the name "Barbiesplaypen.com." The judge initiated a cease-and-desist order, prompting the site to shut down. At the time of the ruling, a Mattel spokesperson stated that the company would defend its brand names even when there have been no customer complaints, and in this case the company stated that it wouldn't risk having people think that Mattel was involved in a pornographic site. The Houston-based lawyer Robert Lytle, a legal expert on cyber-

squatting, stated, “The case strengthens the ability of the mark owner to protect its mark from tarnishment from uses on the Web.”<sup>40</sup> Similarly, Ford Motors filed a lawsuit against 95 companies and individuals who violated this law. The 1999 Anti-Cyber Squatting Act gives trademark owners the sweeping legal power to transfer the domain names that contain their trademarked name, in virtually any context.<sup>41</sup>

## THE PRIVATIZATION OF CULTURE

These recent examples of the privatization of culture are merely an extension of a trend that has been taking place during the last thirty years, and which has been accelerating. Herbert Schiller asserts that, by the late-twentieth century, most symbolic production and human activity had become immersed in commodity relations.<sup>42</sup> “In the 1990s,” Schiller writes, “the production, processing, and dissemination of information have become remarkably concentrated operations, mostly privately administered.”<sup>43</sup> In addition, there has been a growth of corporate power primarily resulting from government deregulation, privatization of once public functions, and the commercialization of activities that previously were not a part of the economic sphere.<sup>44</sup> Schiller argues that a “total corporate information-cultural environment” is spreading throughout the globe, including not just movies and television shows, but banking and other economic and financial networks.<sup>45</sup> To this extent, by the mid-1990s, intellectual property accounted for over 20% of world trade, roughly \$240 billion U.S. dollars.<sup>46</sup>

R.V. Bettig wrote *Copyrighting Culture* as an attempt to extend the line of thinking that runs through the political economy of communication literature to the area of intellectual property. Although Bettig discusses the ideological functions of media ownership to a certain extent, *Copyrighting Culture* is first and foremost an examination of the appropriation and commodification of information and culture. Intellectual property is significant to his analysis of media ownership, especially because companies that control the copyrights of cultural “software” (back catalogs of music, films, television shows, etc. – for instance, Disney) are considered by many investment firms to be extremely lucrative, perhaps the most profitable companies in the communications market. Furthermore, ownership of intellectual property significantly enhances a company’s ability to maneuver in the corporate landscape of culture industries. For instance, Hollywood was able to muscle its way into the cable television industry because of its massive holdings of cultural software.<sup>47</sup>

Schiller, for his part, focuses on the intensifying push toward the privatization of as many forms of social activity as possible, which were brought under corporate control during the latter part of the twentieth century.<sup>48</sup> Sites where culture is produced (public schools) or made available (public libraries, museums, theaters, etc.) have been brought under the direct influence of private corporations that, in turn, influence the form culture takes.

[B]y the close of the twentieth century, in highly developed market economies at least, most symbolic production and human creativity have been captured by and subjected to market relations. Private ownership of the cultural means of production and the sale of the outputs for profit have been the customary characteristics. The exceptions – publicly supported libraries, museums, music – are few, and they are rapidly disappearing. The last fifty years have seen an acceleration in the decline of nonmarket-controlled creative work and symbolic output. At the same time, there has been a huge growth in commercial production.<sup>49</sup>

New technologies have facilitated both the growth of culture industries and the explosion of information-producing sectors. Both of these areas have been marked by the consolidation of ownership through mergers and acquisitions.

An example of this is the 1989 merger of Time and Warner Brothers to create Time-Warner, the subsequent merger of Time-Warner with Turner Broadcasting in 1996, and America Online's acquisition of the Time-Warner empire.<sup>50</sup> As the result of this consolidation of media corporations, the dominance of a few firms works to ensure that a more limited range of expression is communicated. These factors, Schiller maintains, contribute to the homogenization of culture, shaped to meet the interests of the corporate parents that own the sites where culture is produced and the venues where cultural texts are distributed.<sup>51</sup>

Public information has been extensively privatized in the postwar period. This is characterized by the privatization of governmental information that once was made available largely for free to the public, the close relationship between universities and big business (especially in the sciences), and the commercialization of information in the library field. For instance, before World War II, there were no large companies organizing, managing and distributing information, and information-gathering centered around universities, government agencies, and public libraries. Government materials were not considered lucrative and therefore were not copyrighted. But during the 1950s and 1960s computers facilitated the emergence of information industries, and recent decades have seen the widespread privatization of national and governmental information contained in databases managed by private companies.<sup>52</sup>

With the government increasingly contracting out information to private firms, the primary channels that citizens used to gain access to this information have been restricted in many ways. For instance, while Supreme Court, Federal Court and lower court records are still available for free, companies such as Westlaw control the intellectual property rights to such information as it exists in a more accessible form, and charge heavily for access to it. Records of scientific data and medical studies that had previously resided in the public domain are very often held by private companies that have a financial stake in restricting the flow of that information. Even if that information is readily available, there is no guarantee it will be organized in a way that benefits the welfare of the public.<sup>53</sup>

Corporations have been extremely resourceful in securing new areas of culture to inhabit and own, and the National Information Infrastructure (NII, or as then-Vice President Al Gore called it, the “Information Superhighway”) is a good example.<sup>54</sup> Private corporations led the charge to build the NII, and have – with the Reagan, Bush and Clinton administrations’ encouragement – invested billions of dollars in telecommunications in the 1980s and 1990s.<sup>55</sup> Those who put up the capital for this new “highway” will get to decide where it’s built, who will be admitted, and what information can flow through it.

Adding to the unabated privatization of public-owned information resources was the selling off of sections of the radio spectrum to facilitate the increased activity of communication industries. When those sections of the radio spectrum were in government hands, at least there was the *possibility* that they might be used in the public interest. But now that these sections are in the hands of private companies (AT&T and Sprint secured significant portions for themselves), there are no such guarantees. Ultimately, a privately-owned information system will contain the key feature of the private industries that came before it: inequality in the distribution of resources.<sup>56</sup>

Unfortunately, intellectual property law, particularly trademark law, only conceives of these culturally loaded signifiers as *private property* and the courts characterize the use of such trademarks as trespassing. At the same time that companies have been able to invoke trademark law to gain control of existing, registered domain names, the number of remaining domain names are being gobbled up, not so much by “cyber-squatters” but by the corporations that can purchase thousands of domain names at a rate that can’t even come close to being matched by private citizens. This, combined with the fact that corporations actively use intellectual property law to suppress expressions of dissent, points to a future of higher fences between the information haves and have-nots. Constraints are placed upon the use of these privately-owned images by intellectual property laws, which essentially function as the traffic laws that are used to police the exchange of cultural expression on the privatized information superhighways of modern communicative practice.

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# On ®™ark, or the Limits of Intellectual Property Hacktivism

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*Caren Irr*

If the Internet initially seemed to promise access to a utopian mode of social relations outside the watchful eye of the state, then this offer now seems to have been revoked. The commercialization of the World Wide Web, for example, has involved the transfer of a whole social apparatus—advertising, brand-naming, security, and so on—from the non-virtual spheres. In this context, Stanford Law School professor (and consultant in the Microsoft anti-trust case) Lawrence Lessig, for one, has argued that the “code” of cybernetic technologies can and does support the code of law. The Web, as Lessig describes it, is increasingly subject to social control, in part because the modes of discussion surrounding cybernetic technologies have developed poor mechanisms for deciding questions of basic principle. Problems of governance have not, for Lessig, been adequately resolved by non-state entities such as the Internet Corporation for Assigned Names and Numbers (ICANN). In the absence of effective self-regulation, then, the Web attracts external efforts to “zone” it in fashions analogous to the zoning of non-virtual urban spaces.

One example of such zoning is the federal criminal statute proposed in 2000 by practicing attorneys Bruce Braun, Dane Drobny and Douglas Gessner. Designed to prevent the solicitation of commercial terrorism over the Internet, this proposed statute extends the logic of existing anti-terrorist legislation from the protection of human life to the protection of commercial property. Braun, Drobny and Gessner argue that the Internet provides unprecedented opportunity for anti-corporate terrorist conspiracies, conspiracies that often go unprosecuted because their organizers are few and geographically dispersed, while the actions themselves rely on a level of technical expertise that law enforcement and criminal prevention units rarely attain. As a remedy, the proposed statute aims to punish “individuals on the fringes of society” who solicit actions that are potentially damaging to commercial property (185). Internet Service Providers and other commercial entities would not be liable; only the individual author(s) would be held responsible, and only active renunciation of anti-commercial content would provide an allowable defense, if this proposal became law. The authors explicitly reject First

Amendment protections of free speech and the specific protections currently allowed for satires. Policing expression on the Internet in the interests of the protection of virtual and non-virtual commercial property is their highest priority.

Whether or not this model statute is adopted its basic terms indicate that prominent observers consider civil liberties and the interests of property owners as being opposed in the case of the Internet. This opposition makes it seem likely that—whatever the Internet’s status as an example of utopian social relations may be—its status as an increasingly powerful vehicle for expressive communication ensures it will be carefully monitored for the transmission of ideas about property that conform to the dominant norms. Despite important victories for freedom of speech on the Internet (such as the overturning of the Communications Decency Act), the medium is increasingly subject to various local forms of censorship of content, and these restrictions on what can be communicated have consequences for how communication can happen. The policing of content can also have consequences for formal innovations, as cases such as the 2 Live Crew suit have demonstrated.

Overall, in this essay, I argue that dominant modes of property relations increasingly organize the Internet in both content and form. The medium’s promising utopia of anonymous travel in a boundless and non-corporeal imagination now reveals itself as a persistent but very local Romantic ideology. As I attempt to outline below, this utopian imaginary may reflect the emergence of new forms of labor characteristic of late capitalist societies, but it ultimately does not compensate for or release participants from the circuits of capitalist appropriation. In fact, some argue that a new “immaterial” labor of the sort driving the Internet is the main source of profit for a new formation of capitalism. This new medium then triggers a new form of expropriation, reproducing and enhancing dominant relations of property. Renovated forms of dominant social relations are thus, as a corollary, reproduced by the new medium.

This reterritorializing dynamic is particularly evident in the case of <sup>®</sup>TMark, an artist and activist group whose projects are repeatedly cited in Braun, Drobny and Gessner’s proposed anti-terrorism statute. <sup>®</sup>TMark’s projects elucidate the contradictions generated by attempts to use corporate informatics against corporate logic, and I examine their effects below. Before turning to <sup>®</sup>TMark, however, I want to extend the frame of discussion somewhat to include questions of critical theory. If it is the case that concepts of the Internet have shifted from those associated with a utopian outer space to those recalling a socially interior space that reproduces dominant property relations in particular, how might we conceptualize and explain that turn? To answer this question, one will want to draw on political economy, while also moving beyond the usual political economist’s focus on the concentration of ownership to inquire about the origins of ownership itself. To ask what property does to the Internet, it is useful, I want to suggest, to synthesize a Frankfurt-School-style ideology critique with attention to ontological changes in the forms of labor affiliated with globalization.

Web critiques from a Frankfurt School perspective have, to date, been rare, but, in Adorno’s writings on television, he offers media theorists some powerful and multi-

dimensional proposals that might be usefully translated from the dominant medium of the 1950s to that of the 1990s. In "Prologue to Television," in particular, Adorno initially describes the emergent electronic medium of his era from the point of view of the audience; he conceives of television as a machine for standardizing the social unconscious. Television, for Adorno, works by integrating, harmonizing, and fundamentally falsifying the viewers' perceptions of their social worlds. The medium encourages a regression in both psychologic and historical terms, because its message finally is to "become what you are" (Adorno 55).

What "we are," for Adorno: alienated, possessive individuals. "That awkward 'intimacy' of television," he writes, ". . . satisfies not only an avidity that allows no place for anything intellectual unless it is transformed into property but, moreover, obscures the real alienation between people and between people and things" (Adorno 53). One of the major effects of television as a hieroglyphic medium then is that it reduces social life to the affirmation of property relations, and it does so effectively because it operates under the cover of its own supposed confinement within the leisurely pleasures of the private and domestic sphere.

As a hyper-individualized and increasingly commercial medium, the Internet may well perpetuate the ideological effects Adorno outlined for television's consumers. However, more prominent than Frankfurt-School-style critique of the cybernetic media in terms of consumption have been analyses focused on production and circulation. Political economists have done excellent work documenting the concentration of ownership in the telecommunications industries and evaluating problems of access and the consequences of limited access for the democratic public sphere. The works of Manuel Castells, Ron Bittig, Vincent Mosco, and Armand Mattelart, for example, clearly describe the continuity of practices in this arena with other monopolistic private industries. Political economists have predicted the development of an information gap that will accentuate already existing global and domestic disparities.

By contrast, an emphasis on novelty characterizes approaches to the problem of production vis-à-vis the Internet. One of the most interesting theses is the Italian autonomists' account of "immaterial labor." The work of Lazzarato, Virno, Hardt and Negri, as well as Dyer-Witheford, treats informatic production as the paradigm for a range of labors driving the global economy; they describe immaterial labor not as production of immaterial or virtual products, but rather as the labor involved in affect, attitude, culture, and value. The workers' necessary self-valorization and forms of life, for autonomists, require this kind of labor, and characteristic of the latest phase of global capitalism is profitable appropriation of this labor. The so-called service economy, for instance, commodifies the affective labor involved in the reproduction of the labor force. Taking this process one step further, in the case of informatics, capitalism appropriates reproduction not only of the physical body of the laborer but also reproduction within the organization of the labor process. That is, capitalism not only appropriates the labors of love involved in creating websites; it also aims to commodify the channels of affect themselves—particularly the affective connections or associations made between other-

wise unrelated bits of information. The network itself becomes a source of value with informatic capitalism. By establishing an open-ended, “learning” network on the Web, then, architects of informatic capitalism provide a means for surfers’ own affective desires and interests to expand the terrain of the system. The affect thus appropriated is produced by immaterial labor.

Accompanying and preceding this new appropriation of labor, for autonomists, is the potential for a new kind of politics. Since the culture of the workers is now the terrain of profit, it is also (and primarily) a site of resistance. To move from the spontaneous resistance of biopower (as Hardt and Negri use the concept) to more organized activities of the multitude will involve, however, understanding the circuit of social relations linking this new labor to older forms of concentrated ownership and ideological containment. In particular, we need to look more closely at the relationship between micro-scale appropriations of affect and macro-scale property relations. This is the terrain of intellectual property—property in “intangibles,” such as copyright, patent and industrial designs. In analyses of cybernetics, many questions about authors’ investments in monopolistic concepts of intellectual property have been raised. It is not uncommon for discussions to begin with the assumption that authors benefit from conservation of monopolistic ownership and that authors’ rights can and should normally trump the rights of users of intellectual property (Sell, *Power and Ideas*).

It is to a counter-strain of Web practice and theory more critical of current intellectual property protectionism, however, that ®TMark belongs. Their polemics aim to disassociate the affective labor involved in the production of informatic texts from dominant corporate practices of ownership, but this project generates difficulties along the form/content axis. Proprietary forms prove very difficult to dissolve, no matter how malleable the content or unowned “idea” may be. In fact, this form/content division is essential to intellectual property law, and the ®TMark activists’ acceptance of this division and rerouting of their projects towards critiques away from form and towards corporate content seem ultimately to affirm the structure if not the spirit of corporate and private property relations.

An anonymous web-based organization with no apparent geographical location, ®TMark has acquired what public identity it has largely from descriptions offered by media commentators. *Industry Standard* calls it “digital agitprop”; *The Guardian* says it is “a hysterically funny but surprisingly effective . . . media prank” (Rushkoff 15); the *New York Times* in various articles labels it a group of “cultural saboteurs,” “a shadowy anti-corporate organization based in California,” and a “contemporary cybercrusade” (Strauss E3; Lyell 3; Quart G10). Although some commentary (notably Mark Amerika’s excellent independent essay “Writing as Hacktivism: An Intervening Satire”) draws attention to the group’s status as cultural producers, the media generally represent ®TMark as political pranksters or innocuous saboteurs. In other words, the media have focused on ®TMark’s anti-corporate content.

At rtmark.com, the group provides its own statement of goals, a rhetorically complex statement fusing and confusing the claims of activism and art. In answer to the FAQ “What is ®TMark, anyhow?,” for instance, we find the following definitions:

®TMark is a brokerage that benefits from “limited liability” just like any other corporation; using this principle ®TMark supports the sabotage (informative alteration) of corporate products, from dolls and children’s learning tools to electronic action games, by channelling [sic] funds from investors to workers for specific *projects* grouped into “mutual funds.”

**So ®TMark is just a corporation?**

®TMark is indeed just a corporation, and benefits from *corporate protections*, but unlike other corporations, its “bottom line” is to improve culture, rather than its own pocketbook; it seeks *cultural* profit, not financial. (rtmark.com/faq.html)

With links to pages describing their own projects and a Swiftian proposal to extend human rights legislation to corporations, ®TMark announces itself as a parody that attempts to divert the means of social reproduction to other ends. ®TMark takes advantage of on-line anonymity and a double blind technique (similar to mutual fund investing) to unite persons with political goals and money with persons who have the technical expertise and nerve to experiment with sabotage. In the process, the organization itself retains extremely limited liability; like a mutual fund investment firm, it is not responsible if an investor loses money or an independent sub-contractor goes to jail. The irony of this strategy, of course, is that the very tools designed to protect corporate owners from the social consequences of their actions might also make them vulnerable if activists incorporate themselves.

The goals articulated by some of ®TMark’s participants seem, however, to drift from this corporate parody. Building on the theme of “cultural [vs. financial] profit,” another of the organization’s web pages asserts that it “will never promote a project that is likely to result in physical harm to humans” and urges despairing student-aged viewers to “remember that laws should defend *human* people, not *corporate* people” (rtmark.com/faq.html). That is, in addition to parodic legalism, ®TMark uses a humanist vocabulary that strongly insists on differences in kind between biological entities and social fictions. A prime example of a “problematic” social fiction is the “physical property” whose “destruction” ®TMark identifies as “likely to get one branded a terrorist”; protection of “physical property,” is not a priority for ®TMark because it views the boundary between legality and illegality as “shifting,” as something that “can change with the times and laws” (rtmark.com/faq.html). Underlying parody, then, is a social construction theory of law and a universalist account of what constitutes properly “human” concerns.

The opposition between a presumably non-proprietary humanity, invested in culture, and a “shifting” and inhuman corporate impersonation takes shape for ®TMark in “projects.” The latter rather quickly bury the more earnest humanist vocabulary and return to a considerably more ironic and postmodern objectivist vocabulary dedicated to parodying corporate practices. In fact, most of the intellectual work of the organization’s projects seems devoted to appreciating and mimicking the cleverness of corporate strategy. For instance, in convincing potential investors to support the “mutual fund model,” ®TMark argues that “An investment in ®TMark is an investment in culture,” “An investment in ®TMark is an investment in people,” “An investment in ®TMark is like an

investment in art. . . but better,” and “An investment in ®TMark is its own ®TMark project” ([rtmark.com/investment.html](http://rtmark.com/investment.html); ellipses in original). That is, ®TMark’s own promotional material appropriates the rhetorical strategies of contemporary financial brochures (notably, the repetitive, declarative, depersonalized yet disturbingly cheerful tone and the obvious logical twist at the conclusion). The corporate pseudo-cleverness in question is the flatness that naturalizes the entire project of investing, and it is this tone—as much as the project of investing—that ®TMark ironizes. Justifying this fixation on the word, poet and NPR commentator Andrei Codrescu (one of the few individuals to associate himself publicly with ®TMark) asserted “Companies have been stealing from poets for a long time’ . . . ‘so it seemed natural to steal back the language” (quoted in Teague, *Corporate Punishment* 1).

Taking this project of “stealing” literally, the “Intellectual Property Fund” portion of the ®TMark agenda describes a series of actions for which dollars and workers are currently required. Managed by Negativland (the musical group famously sued by U2), the Intellectual Property fund is devoted to copyright and trademark issues. Past projects include production of a CD featuring music from Hollywood films reused without consent, as well as distribution of another (more highly publicized) CD entitled *Deconstructing Beck*. A joint venture with Illegal Art (a group more centrally concerned with sound technologies and affiliated with—or perhaps identical to—the sampling moguls, The Tape Beetles), the *Beck* CD draws attention to the irony of exclusively copyrighting the work of an artist (Beck) whose technique relies on generous samplings of other artists’ work. “Copyright laws are too restrictive, and they’re counterintuitive,” the ®TMark press release quotes an Illegal Art affiliate as asserting ([rtmark.com/deconstructingbeck.html](http://rtmark.com/deconstructingbeck.html)). “Stealing back the language” of the corporation here means converting the social form of existing artworks into the explicit content of an ®TMark project. In *Deconstructing Beck*, the ®TMark saboteurs make a new pirated CD to foreground the logic of official, legal appropriations; replicating and exaggerating existing proprietary forms, they alter the *messages* of the original works, accentuating their intuitive meta-commentaries.

Other projects in the Intellectual Property fund also focus on manipulations of content, though often with less subtlety. Several proposals involve altering existing cultural products in order to foreground their ideological message. For example, participants might “Plant enticing pornographic videotapes in porn stores everywhere, with models such as (a super-well-hung) Ronald MacDonald, (a dementedly horny) Barbie, etc.” or alter a computer war-game so that it “unexpectedly and shockingly convey[s] the connection of commercial video game technology to actual war” ([rtmark.com/fundintel.html](http://rtmark.com/fundintel.html)). Whether by exposé or inversion, these projects are less concerned with drawing attention to the uneasy situation of intellectual property within property relations as a whole, and more concerned with the conformist social effects of consuming and circulating specific works of intellectual property.

Despite the clear interest that ®TMark as an organization has in asking fundamental questions about intellectual property and “physical property,” this second type of

project seems to be its most characteristic output. Its most famous efforts include swapping voice boxes in GI Joe and Barbie dolls, to draw attention to the gender stereotypes each toy reproduced, and diverting web surfers with sites closely resembling those of G. W. Bush, Rudy Giuliani, and the WTO. The latter group of mirror sites exploit the first-come, first-serve quality of domain name ownership, but they use the sites not to undermine the qualities of ownership, so much as to parody the dead language of the candidates and international organizations. In other words, these projects turn corporate ossification of social life into the content of web-circulated critiques.

For this reason, in the end, ®TMark seems divided against itself. Its humanist goals (multiplying cultural profit and protecting “human people”) conflict to a certain extent with tactics that require a perpetuation, however ironic, of the corporate project of naturalizing property relations. The contradiction, as I see it, is not so much that ®TMark’s projects are unrecognizable as satire—too deeply encoded to be legible to regular folks, as sincere politicians sometimes complain of their artful allies. After all, sympathetic readers of the ®TMark projects do generally manage to identify the underlying humanist principles. The *San Francisco Bay Guardian*’s David Cassel, like a number of commentators, places ®TMark in the context of other ethical cyber-activists, such as the anti-globalization demonstrators, and the pro-Zapatista Electronic Disturbance Theater. (Cassel, *Hactivism*) And, similarly, Mark Amerika sees ®TMark and related projects as celebrations of the “artist or hactivist collective as a disembodied ‘intelligentsia.’” (Amerika, *Writing*) ®TMark’s ethical projects are legible.

Rather, the problem, as I see it, is that in insisting so strongly on the necessary link between humanist ethics and an appropriation aesthetic, and thereby downplaying some of the contradictions between the concepts of “human” and “property” that are included in their ethical project, the ®TMark agenda in effect leaves in place the intellectual property relations on which it poaches. It leaves the critique of property as part of its “content” and in the end minimizes its effect on the terrain that seems to concern its participants most—the language and images that constitute this pre-owned corporate culture. By focusing on content, ®TMark reproduces the social form of critiques of property—and even possibly furthers the appropriation of immaterial labor.

Of course, this may well be a currently unsurpassable situational irony, and it does not mean ®TMark’s projects are without effect. After all, even articulating a minimally anti-property stance has inspired a definite and defensive response on the part of power. And, this response is specifically designed to prevent *any* spillover from content to the form of intellectual property. Braun, Drobny and Gessner’s model statute openly aims to regulate the relationship between articulation of political principles and action, defining “solicitation” to action (and the accompanying standard of “imminent threat”) very broadly. Any suggestion that specific corporate properties might have ill effects could instigate and thus constitute, for Braun, Drobny and Gessner, terrorism. We find similarly broad claims for the imminent effects of ®TMark’s speech-acts from more sympathetic institutions of power. Including the ®TMark website in its 2000 Biennial, the Whitney Museum of American Art also describes the organization in terms of a rela-

tionship between goals and tactics; <sup>®</sup>TMark is “diametrically opposed to the corporate world it imitates.” Although <sup>®</sup>TMark organizers apparently made every effort to avoid legitimating the market in celebrity—auctioning off their artists’ tickets to gala events, for instance (see “Whitney Biennial”), the contradiction thus makes <sup>®</sup>TMark absorbable and displayable in a context devoted to the protection of cultural work as alienable intellectual property, the museum.

One further structural irony of intellectual property hacktivism is that the more initially successful (i.e., highly publicized) the activists’ projects are, the more closely the name “<sup>®</sup>TMark” is associated with this particular contradictory relationship between ethical humanism and ironic corporatism. That is, in the current context of cultural reproduction, artistic or activist success breeds trademarking. “<sup>®</sup>TMark” becomes the trademark for a particular kind of speech-act, despite the organization’s ideological resistance to the concept and practice of trademark and copyright in cultural production. Because the speech-acts in question are social, their significance and effects are not solely determined by their authors. And, because the speech-acts in question concern intellectual property, a significant part of their social recoding has involved efforts to remake <sup>®</sup>TMark’s activities into an occasion for a confirmation of property relations as currently constituted.

Are these social recodings inevitable? What in the <sup>®</sup>TMark story might be uniquely due to the organizers’ Internet-based anonymity? To what extent do these artists’ activist projects teach us about contradictions specific to the social “fringe”? How broadly might a human rights discourse transform questions of property if it were rigorously applied? Is property, including intellectual property and/or intellectual property in Internet creations, a human right? These are only a few of the socially consequential questions that cannot be answered here. There is a great deal left to explore and explain and experience concerning intellectual property and the containment of the Internet, and I fully expect that the emerging answers to these questions will exceed and replace any residual confidence that copyright always is and ought to be an individual author’s quasi-monopolistic right.

Nonetheless, in the new world of informatic activism, one conclusion seems obvious: Adorno may not have been too pessimistic in forecasting ways that an image-based medium encounters limits in its own self-theorizing. When describing the Net, we may need to be especially vigilant about reproducing in our utopian moments some of the monopolistic tendencies of meat-space. And if Adorno is right, then activists in such a medium may well need to resist the comforting and totalizing urge to “become what you are,” when they might inhabit instead the uncomfortably contradictory prospect of becoming what they/you are not. As “authors” of anonymous actions, hacktivists perhaps still have the opportunity to direct their immaterial labor towards making or re-inventing new forms of non-proprietary and utopian social relations.

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# Patched In: A Conversation with Anne-Marie Schleiner about Computer Gaming Culture

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*Tara McPherson*

One of the most under-analyzed areas of today's vast entertainment conglomerate must surely be computer gaming. In terms of economic impact alone, gaming has exploded in the past decade, becoming an increasing presence online. Video game sales now outstrip movie ticket receipts, and the sale of game hardware and software in the United States is expected to top \$17 billion a year in 2003, probably surpassing the music industry in total revenues. The audience for these games has shifted as well, with almost two-thirds of gamers now over eighteen and more than a quarter over age thirty-six. The notorious gender gap has also closed; men and women now play games in roughly equal numbers.

But, beyond its status as big business, computer gaming is also a powerful cultural force along other registers, a force which ripples across diverse on- and offline spaces, modeling new modes of experience and of interactivity. Video games stand as powerful examples of what might be called the lures of many new media forms, lures that cut across several genres, shaping our modes of engagement with new media technologies. These lures include digital media's capacity to produce two different sensations: *volitional mobility* and *transformation*. Capitalizing on the user's perception of control, computer games structure a sense of causality in relation to movement and presence, a presence we navigate and move through, often underwriting a feeling that our own desire drives the movement. Games thus generate a circuit of meaning not only from a sense of immediacy and immersion, embedding the user in a navigable world, but through yoking this presentness to a feeling of choice, structuring a mobilized liveness which we come to feel we invoke and impact, in the instant, in the flick of a wrist, in the push of a button. I term this sensation *volitional mobility*. We feel we are in control, making choices, and these choices propel us forward through the game.

This aspect of choice, of volition, is closely tied to what I categorize as a second modality of digital experience, the promise of *transformation*. From the avatars we select to 'embody' when playing the mythical narratives propelling many titles to the sprawling cities and homes we build in simulation games, the spaces of gameplay harbor hopes of transformation. Regardless of content, there's a haptic potential to these spaces. When one enters a game world, the play that unfolds can equal a loss of self, structuring a transformative space, an imagined place of possibility and change.

Of course, very little is materially transformed via hours of game play. Likewise, the feeling of volition and control which games so seductively proffer can be read as, finally, just that: a seduction. A computer game is, in its own unique way, as structured an experience as a film or television show, deeply rule-bound and formulated at multiple levels. It's important to recognize that the *experience* of volitional mobility and transformation are both specific to the medium of games themselves, a function of their materiality, and also ideologies packaged and promoted by the gaming industry, i.e., corporate strategies of narrative and structural address.

We might say that popular culture has always thrived on illusory promises of transformation, but I think we might find in computer games and the cultures they inspire a different enactment of these promises. While games might be read as just another tentacle abetting corporate culture's ever-growing reach, as yet one more facet of 'brand' identity (witness the game tie-ins for most hit books or films), computer games have also inspired a lively culture of 'bottom up' engagement, perhaps most interestingly in the form of 'game patches' or 'mods'.

Game patches are 'add-ons' to games that alter their look, play, or feel, alterations of code that transform the original game. While a patch might be released by a company to fix a bug or extend game play, patch culture really took off as hacks, as 'unofficial' infiltrations of a game's engine, often crafted by game fans. The Internet helped patches travel, creating their own version of a gift economy, and organizing communities of players around modifications to popular commercial products, a homegrown development which has not gone unnoticed by the game industry. Artist and writer Anne-Marie Schleiner was among the first to theorize the pleasures and possibilities of patch culture. Here she and I discuss the phenomenon of game patches as well as the need for a more sustained critical attention to gaming culture in general within the spaces of humanities computing.

TM: Academics and theorists have been slow to turn to computer games as a vital aspect of digital culture, despite gaming's vast economic success and game culture's increasing ubiquity in online spaces. How might we account for this relative lack of attention from critical quarters? How'd you get interested in gaming culture and its variations?

AS: Unlike film, computer games until recently have been seen by many academics as a children's entertainment medium. The few academics who have researched computer

games, besides those computer scientists working in 3-D computer graphics or artificial intelligence algorithms, often take a pedagogical perspective, beginning with questions like whether games are good or bad for children and how learning math and other education areas can be made more fun through educational games. (There also seem to be grants around for this sort of research.) I think that as the computer gaming public ages, computer games will be seen as a legitimate entertainment medium like film, literature and art. Games are toys for grown-ups as well as children, toys which, although unlike literature, film, and art in very important ways, are capable of generating nuances of emotion and complexity of experience that adults can appreciate. I think this shift to viewing computer games as an entertainment form for adults will turn the way we look at gaming inside out. For example, instead of asking whether violence in computer games is a good or bad influence on children, gaming “critics” may ask how the particular type of simulated combat or competition in a newly released game engenders new kinds of pleasures.

My own interest in gaming began as a player. I spent a lot of my time playing computer games at the same time as I was studying media theory and computer art in graduate school. The more immersed I became in gaming culture, (making my own add-ons), the more areas I saw ripe for theoretical and cultural exploration, from gender politics in gaming to online social dynamics within coded environments (RPGs) to the online gift economies and digital folk art of game modmakers and hackers. At this time there was very little written by theorists about computer games, and I found myself turning to film theorists to inform my writing.

TM: Games seem, at one level, to engage very different mechanisms of identity and desire than do films or novels. In your view, how important is it to theorize games in their specificity as a new medium, offering distinct pleasures, dangers, and possibilities? What similarities are important to note?

AS: Film theory can really inform how to approach such issues as visual identification of players with game avatars. Feminist film theorists have already articulated ways which viewers identify with certain actors in films through camera positioning, and the ways in which women are fetishized through cinematic tropes such as fragmentation and close-ups. Games offer differing subject positions like 1st person or 3rd person or godlike “camera” positions. Feminist film theory can also be helpful in looking at these subject positions in computer games. I have also found queer-theory-influenced film theorists (a mouthful :-)) helpful in articulating various curious ways that cross-gender identification occurs between players and avatars.

Some games have directly adopted cinematic tropes. In many 3-D games a high-resolution animated movie introduces the game, providing background story and setting the mood. The player is then immersed in the first game level at a lower resolution with 1st person or 3rd person control of her or his avatar. When the player completes a level of the game, again the game again takes control of his/her character and s/he is

treated to a short animated movie sequence, before being plopped down into the next level with full control. Some games, like *Tomb Raider*, even afford shifting camera angles and dramatic “soundtracks” while the player is immersed in gameplay. Games are incorporating cinematography into their vocabulary, (or perhaps Marshall McLuhan would say they are devouring the old media of film). And writing has always been an important part of Muds and even more recent Graphical RPG’s.

But there are important differences that necessitate games developing their own set of theories. Most importantly, and obviously perhaps, is the interactive nature of computer games. Although working within certain parameters of the game world, rules and cultural conduct, the player, not a director, controls her or his actions in the game space. If this is a networked game social dynamics come into play. Competition, combat, group dynamics, flirtation, romance, power, are all aspects of online role playing games which merit their own investigation. Even if a game is in single player mode, artificial intelligence algorithms allow the player to “socially” interact with non-player characters (NPCs). Oftentimes players take a game in a direction not foreseen by the game designers. Rampant player killing posed quite a problem initially for Origin, creators of the graphical RPG *Ultima Online*. *The Sims* can barely keep up with banning the “naughty” Sims add-ons people keep posting to their fan site. Thus game theory should extend beyond theories of “game design” to also include theories of distributed cultural production and network social dynamics. Also, currently games are rather rigidly genrified and it is interesting to trace the historical roots of genres (often to various military simulation technologies) and to define their various characteristics.

TM: Game patches seem a particularly rich and intriguing Internet phenomenon, offering possibilities for endless mutations of commercial products, reconfiguring play from new points of view. What patches would you list among your favorites? How is ‘patch culture’ like and unlike other forms of ‘hactivism’?

AS: Game patch or mod culture is a phenomenon that is native to the Internet and like open source software, Napster and other arenas of open exchange and cultural mutation and production, have flourished in the networked environment. I like your description of games patches as viral. Popular patches are quite viral in behavior, spreading to gamers around the Internet faster than a game publisher can promote a new game. Sometimes the patch will “mutate” as various gamers make improvements and release new versions. There are multiple versions of an old doom wad called “Aliens” from various changes that were made to the original wad by different gamers.

My favorite patches or mods are often those which affect a total re-articulation of the game. I remain very fond of “Los Disneys” by Jason Huddy, a patch for *Marathon*, an early Mac shooter, which replaced the drab spaceship environment with a post-apocalyptic Disneyland built in the shape of Mickey Mouse’s head. I also like artist group *jodi*’s *Wolfenstein* 3-D mod, “S.O.D.”, which replaced a nazi soldier environment with beautifully fractured, disorienting, black and white pixelated flickering walls. (And I

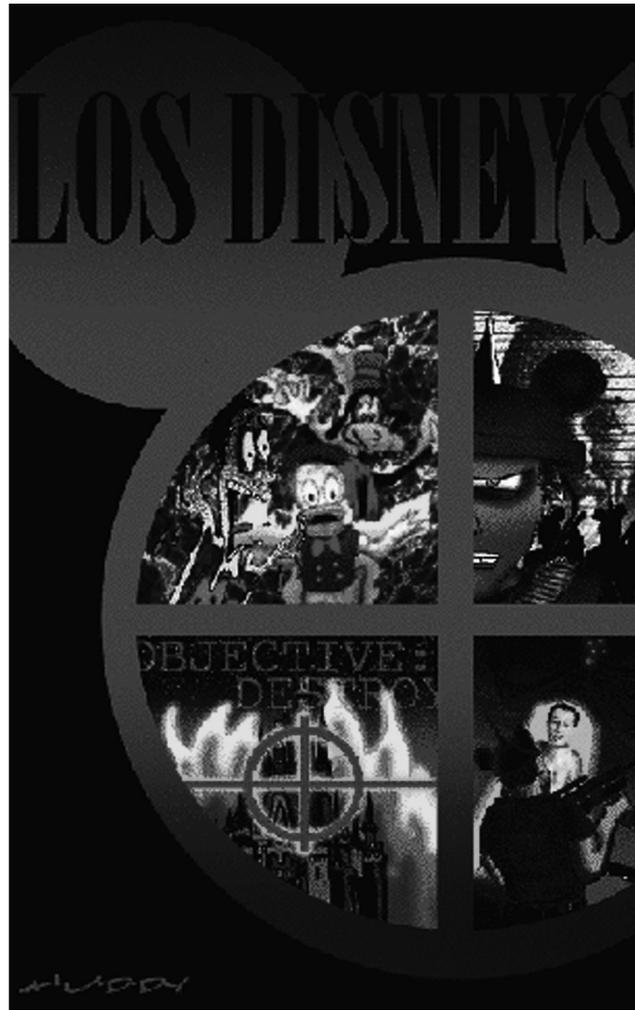


Fig. 1. Jason Huddy's *Los Disneys*, a *Marathon* patch, unfolds in a not-too-distant future in which the U.S. has sold Florida to the Disney Corporation. As players battle camera-toting tourists, exploding Eisners, and a towering Goofy in a revamped Disney themepark, the modified first-person shooter foregrounds the corporatization of mass culture under global capitalism and allows the user to 'fight' back, if only figuratively. The game, true to its genre, is pretty blood-soaked, but, within the confines of Huddy's altered Magic Kingdom, the violence seems to operate at a more critical level. Huddy also maintains a website [[www.losdisneys.com](http://www.losdisneys.com)], filled with further commentary on the world of Disney, the status of intellectual property, and the nature of parody, as well as a message board, press coverage, and a 'souvenir' shop.

have included these and other favorites in some of the online game add-on exhibits I have curated, linked from *opensorcery.net.*) There are many others; lately, the *Sims* players seem to be producing interestingly perverse stuff.

Although game mods are definitely “hackerish” I would not necessarily describe the majority of game add-ons as “hactivist”. The majority of game mod makers are not motivated by a particular political agenda just as a programmer participating in a shared development of a piece of software for the Linux platform is not a “hactivist.” Like the Linux programmer, the game modmaker simply wants to participate in cultural production as an active participant outside of or regardless of the market economy. However, distributing the development process more broadly can have political outcomes, allowing some games worlds to be created that reflect more politically motivated concerns and visions, game worlds that are too unique, personal or political to have been produced as commercial games.

TM: Game patches also engage quite directly with consumer culture, creating a kind of dialogue between producers and consumers where those very binaries become unstable. Of course, the industry has been quick to respond; at our most cynical, we might say the corporate response simply seems to capitalize on patches as yet another form of PR but the situation strikes me as much more complex. Is it useful to think of these patches as a more flexible and rhizomatic strategy, less clearly ‘political’ in an ‘old Left’ sense, more viral?

AS: Although game publishers and development houses obviously have an interest in catering to the market, the markets which they create and cater to are often self-defined. In other words, the people working as game developers are white North American men and the games they create reflect their biases, despite other market potentials. They also reflect the biases of the game publishers, who are notoriously afraid of taking risks with new game genres. In any event, opening up game engines to hackers and gamers has allowed other visions to be expressed in gaming. Sometimes if a trend gains enough momentum it leaks out into commercial games. This is how I think female heroine games came to be popular. Of course the game companies are making money off an idea that was thought of by gamer fans, but it also means that more games are being released with female heroines, and this is an important improvement for the general population (general consumers and more avid game hackers). How market economies and online gift economies intersect in parasitic and symbiotic ways is an interesting area for further exploration. A few months ago I took an interest in the “KiSS” phenomenon and put together an online exhibit of erotic interactive “paper dolls”. These dolls are made by KiSS artists entirely independently of any commercial game engine and are distributed freely online between KiSS artists and players, with the understanding that they are not for commercial profit. The KiSS phenomenon has erased any industry involvement whatsoever from the loop.

TM: You point to two interesting and seemingly divergent paths here: on the one hand, a kind of symbiotic relationship between the game industry and its fans, not unlike the relationship between the TV industry and the fan fiction community, and a second, more independent, trajectory of alternative, non-commercial production. Do you think the web will continue to allow for both possibilities or do you see the commercialization of the web as limiting the potential of this second path? Do you think it makes a difference that many of those working in the game industry are themselves avid gamers? Perhaps it doesn't make a lot of sense to talk about the 'industry' as somehow separate from the patch or mod community. It seems we need more flexible models of explaining the relationship between production and consumption if we are to account for the complex politics of online gaming culture.

AS: I think it does make a difference that many of those working in the industry are avid gamers. Great games are made by people who love gaming. This is why I think it is so important for more women who are avid game players to become involved in the industry. (And for more female computer scientists and programmers to go into gaming.) Once you have a significant influx of female gamers in the industry you will start to see amazing games (and some not so amazing ones, just as there are mediocre games made by men) that cater to more "female" and heterogeneous interests. This approach to the "games for girls" issue, the so-called untapped female market, is in my view preferable to the approach that some have taken, including large companies like Electronic Arts, of doing market research on what kind of games girls would want to play and then forcing their reluctant male employees to make artificially stereotyped games based on market research.

Although there is crossover between the industry and the mod community, there are important differences. Gamers simply have much more freedom to express what interests them when they are not confined by the demands of the industry. This quirky, perverse, genre busting freedom of expression is native to gift economies on the Internet and is an attractive space for many. I think these spaces and online communities will continue to flourish on the Internet despite commercialization. Occasionally the gift economies will feed off of industry engines and code, and occasionally the gift economies will be scavenged for content and modalities by commercializing interests (like in the case of *The Sims*), but this user driven component of the Internet will persevere and grow.

TM: As a game maker, artist, and teacher, how do think we can best prepare our students to engage fully with digital culture? How can universities best respond to the widespread popularity of computer games and to the increasing importance of online worlds? Put differently, how can we help our students to become better citizens in an information age?

AS: I think we need to prepare students with both an interdisciplinary approach and a disciplinary approach. Gaming programs should integrate gender studies, film and television theory, computer science, sociology, digital art, and cultural studies into

computer gaming curriculums, (and allow for different emphases.) We also need to discover what would be specific to a discipline of game design and gaming studies. Developing such an interdisciplinary and also disciplinary program would allow for a common language to be shared among programmers and artists, as well as informing gaming culture in general. There is much territory yet to be explored and we should prepare our students to better understand both the history and context of current genres as well as providing them with technical, visual, and conceptual toolsets for new areas of innovation.

Anne-Marie Schleiner inhabits a nodal point at the intersection of theory and practice, creating her own patches that interrogate the gender politics of commercial gaming culture; chronicling and theorizing online culture via her curatorial and written work; and fostering new forms of online practice by connecting artists with technological tool kits. For instance, her online exhibits of mod and patch culture do not simply collect existing patches; Schleiner also recruited artists to make their own add-ons, providing them with software donated by Bungie, makers of the old Mac shooter, *Marathon*, as well as with tech support for their efforts. Schleiner's MFA thesis project, a *Marathon* add-on called 'Madame Polly', functions at the crossroads of commercial computer games, fine art practice, and online player communities, providing a distinctly feminist take on game spaces. Currently, she's at work on an erotic role playing game which fully engages both commercial paradigms and feminist debates over sex workers and visual representation. In her theoretical, pedagogical and creative practices, Schleiner takes up computer games as an important cultural practice, one ripe with both pleasures and pitfalls.

Taken as a whole, add-on game culture defies easy political categorization, blurring the boundaries between commercial and 'homegrown' endeavors. Many of the projects Schleiner samples in her curated exhibits clearly take a position we might recognize as 'progressive' or 'Left,' including Mongrel's revisions of 'old-school' console games to speak more pointedly to minority youth or Josephine Starrs' and Leon Cmielowski's witty revamping of game space into a nightmare of domesticity and kitchen filth. Nonetheless, many of the best-known patches reflect the representational limits already so apparent in corporate gaming culture. For example, the popular "Nuderaider" patch simply takes the step mainstream technocapitalism steered clear of, stripping down *Tomb Raider's* already-buxom heroine, allowing players access to a nude Lara Croft. Not exactly the stuff of political revolution. In many ways, the patch phenomenon highlights the limits of a binary understanding of corporations versus 'the people' or of production versus consumption. Many gamers are avowedly nonpolitical, investing their time and energies in informatic practices without obvious political valence that, at the same time, evidence a deep participation in online cultures as well as a turn toward authorship, toward digital self-expression. Such developments underscore the need for more nuanced and precise techno-theory, a move away from the 'one-size-fits-all' surety of both the cyber-utopians of the early 1990s and the doom and gloom theorists who fol-

lowed them. Yes, corporate culture has taken hold of the web, and, yes, individuals do speak back to power, re-mixing digital possibilities, but the valences of power are neither fixed nor easily readable. Theory needs to be as flexible as the mod makers themselves, quick to respond and resilient. If computer games, and digital culture more generally, really do underwrite new modes of experience like volitional mobility and transformation, then our critical engagements with this culture must take its very forms seriously, respecting their specificity and understanding the unique pleasures, limits, and possibilities they stage for their users.

# What's Mine is Mine, and What's Yours Is Mine: Ownership in Online Universities

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*Paul Collins*

After years of dividing my time between freelance writing and teaching online courses, I shifted entirely to writing books and articles. But to the online education industry, I have not changed job titles at all: I am still just a content creator.

College instructors generally do not see themselves as creating content in the way that a freelance writer might. We write syllabi and lecture notes, which we retain and refine for future reuse. We also create that less tangible content of conversation and interaction that allows us to build successively better courses each semester. Students can jot down those notes and discussions, and even pass them along to notetaking services, but ownership of the thoughts themselves unquestionably remain with the instructor. And our content is portable: when we leave that campus or even just that course, those words go with us. At least, that's how it used to be.

In March 2000, after a few semesters of teaching a Cybercampus courses at Golden Gate University, I received this e-mail from one of their instructional designers:

Hello Paul, Someone pointed out to me that you have put copyright notices in your courses. . . . the content in CyberCampus courses is property of Golden Gate University. Golden Gate University pays a stipend for the content of each course, thus the content belong [sic] to GGU. Of course the instructor can use the subject matter content to publish elsewhere, but ggu also has rights to continue to use the material in its online courses. Please remove references to Copyright Paul S. Collins from any of your CyberCourses, or let me know where these phrases are so I can remove them.

Golden Gate University had electronic rights on my work? I didn't remember signing anything to that effect. The copyright notices, which I had blithely inserted into my online courses the year before by force of freelancer's habit, had never been challenged until now. I instinctively reached for the phone and called an attorney.

“Unless you signed a contract stating otherwise,” she said, “all copyrights are presumed to reside with the author. Did you grant them any copyright?”

“I don’t think so.”

“Okay. Dig up your contract, if you can. My guess is that they didn’t have any such clause, and they’re bluffing. Anyway, the burden of proof is on them. Just tell them that until they show you in writing a signed contract that says otherwise, you own the copyright, and you can put all the copyright notices you want on your work.”

We were not to know it during this episode, but our position has since been clarified and strengthened by the June 2001 *New York Times Co. v. Tasini* ruling by the Supreme Court. Justice Ginsburg, writing for the majority, made it clear that a publisher without electronic rights cannot republish works that have been altered or stripped from their original context; in the *Tasini* case, this meant that while a publisher can microfilm entire newspapers without authorial permission, they cannot parcel out articles into databases like Lexis-Nexis without permission. One could argue from this ruling that while a university can archivally maintain the contents of an old online course—syllabus, discussions, lectures and all—they cannot update or cherry-pick content from these old courses for resale purposes, unless they have contracted for the express rights to do so.

As a content provider, I am not always opposed to selling such rights to my work. I’ve written CD-ROM user manuals, music reviews, and technology reporting, sometimes selling away all the rights. This is a calculation that freelancers have to make; if you’re unlikely to need the material again, then why not sell some or all rights and thus maximize the fee that you can demand? I have sold courses in literature and music to the online instruction venture Hungryminds.com. But their contract clearly stated this from the outset, whereas Golden Gate’s demand that I remove my copyright notices seemed to be a muddled and belated recognition that they might be sitting on something of value. Golden Gate University, which is a well-run operation that gives more thought than most to the needs of its part time and online instructors, seemed ready to stumble into a troubling precedent for its contractual relations.

My concern for instructor rights in this situation was not entirely selfless. The content of my online courses had been drawn heavily from a textbook, *Community Writing*, that I was drafting at the time. By March 2000, when the Golden Gate University Cybercampus e-mailed me, the ink was drying on my publishing contract. Although the school claimed that I was free to publish my material elsewhere, their hazy understanding of our contract did not fill me with great confidence in this promise. When I called a senior colleague at Golden Gate, he expressed surprise over the school’s claim.

“I don’t think they even have a policy on this, never mind anything in the contract,” he said. “Maybe they’re pushing you, seeing what they can get. Push back. Tell them they can’t have it, and they’ll probably back down.”

Whether this “push” was deliberate or not is an open question. But if an employer quietly annexes content that a contract does not entitle them to, and usually gets away

with it, they reap a two-fold benefit: the content itself, plus the appearance of a deceptively unthreatening contract. Freelancer writers watch for this; publishers pull all sorts of nonsense if you don't call them on it. Golden Gate is not even unique among academic content purchasers in this regard, as Gary Rhoades notes in his study of teaching contracts in *Managed Professionals*: "It is often in managers' interest to keep matters out of the contract—that generally increases their discretion. Absence from a large number of contracts does not necessarily mean lack of managerial interest in the issue. Indeed, managerial interest is strong" (175).

After I'd made about a week of politely firm e-mails to various administrators, my colleague at Golden Gate called me again: "They're backing off, and they're also taking your old courses off the server." So I was lucky—this time. But what's to stop them from trying the same thing with new hires? With these hires, they might make sure that the contracts included a copyright provision. And who actually reads the fine print in teaching contracts? I also had more motivation than others to fight back. Most instructors do not write textbooks; if the school wants to claim that it owns their online work, what of it?

Let's imagine a future in which the insertion of such provisos in online instruction contracts becomes standard procedure—particularly the purchase of all rights, a phrase easily lost in the fine print, and one that some newly minted adjuncts and even professors will not realize the full import of.

Ownership does funny things to people. First, it can affect courses even as they are being taught. Instructors fret enough when they get an evaluation observer in the classroom every few years, but when lectures and classroom discussions are permanently preserved on a school server, administrators can visit and revisit as often as they like. They can dictate changes in course content while the course is in progress; after all, they own it. Most writing contracts contain a proviso stating that writer will try to make "reasonable efforts" to edit and improve the work at the suggestion of an editor. Failure to make "reasonable efforts" can result in a contract's termination. The insertion of such boilerplate into cybercontracts could radically undermine the autonomy currently enjoyed by instructors—particularly for adjuncts who have little recourse to protest such decisions, and often lack the financial independence to turn down work, no matter how unfair the terms that it is offered on.

But let's assume you are an instructor who has managed to teach your online course, as most offline instructors now do, under a departmental reign of benign neglect. The school still owns your words, and they can prevent you from reusing your own work. Many instructors find that their courses can be transplanted from one campus to the next—or, at the very least, that they can rework some of the instructional materials they developed at a previous campus. For adjuncts, the judicious reuse of courses at two, three, even four campuses simultaneously is often the only way to stay afloat. But once a school asserts ownership over your content, you can be sued for using your own lectures. A simple search engine would easily turn up violations on instructor web pages.

Not only can the copyright holder prevent the reuse of old work, but an owner of all rights to a work can also reuse it in any way they see fit. An adjunct desperate for

work may press ahead and ignore the small print that signs away their rights to the content they generate, but now their employer can stitch a combination of old courses into a new e-course, or rework the lecture notes into, say, a new book. The writer would be powerless to stop it.

There is an even more disturbing possibility. Experienced instructors could be hired to develop a course—create the syllabus and curriculum and modules, do a shakedown cruise or two with it—and then have the rug yanked out from under them. The course material could then be handed over to a lower paid and more pliant adjunct. Even the online discussions held on class conference boards would remain property of the school, who can then sell it, or rework extemporaneous comments into whatever form they like; the once private and personal nature of classroom discussion could evaporate overnight. A variant of this model already exists at Phoenix University, which uses canned courses created by course developers and then taught by low-paid online instructors.

There is also no shortage of adept English speakers outside the United States. This could mean for education what it has already meant to every other industry from computer programming to customer service lines: outsourcing. A campus can create a credible curriculum of online courses, if designed carefully, in such a way that the courses can be taught in a lockstep fashion remotely. Once this has been achieved, why pay American wages to grad students who keep bugging you and the NLRB with attempts to organize a union? Why not have classes taught by an instructor in, say, Ireland?

Would students even notice the difference? They already have not noticed. When I first joined Cybercampus, a colleague boasted to me, “You know, one of our professors is in Belgium right now, teaching his course from there.” What he meant was that the courses offered tremendous flexibility to instructors. But in retrospect, my colleague may have meant more than he realized. Online teaching means that you can teach your ideas from anywhere, but it also means that someone else can teach your ideas from anywhere.

These scenarios are not new ones, and by some lights they might not even be as frightening as they used to be. In his series of “Digital Diploma Mills” essays, David Noble pointed out precisely these same dangers of deskilling, outsourcing, and institutional fudging on intellectual property rights; he berates the University of California for some particularly egregious misconduct in the latter category. He ends with an exultant revelation in the essay “Fools Gold” of the tide of financial losses by would-be online education moguls, and with a provocative comparison in his essay “Rehearsal for the Revolution” of online education with the discredited rush by universities into correspondence school schemes in the early twentieth century. The fiscal losses are real enough, and the parallels to the marketing of correspondence schools are striking. But it is a mistake to underestimate the potential of online learning. That few schools have figured out how to make money yet is not surprising, given that most speculative new industries have an early period of explosive and poorly planned growth, often resulting in far more losers than winners. As the industry matures, so will its business models.

Moreover, Noble appears convinced that online education is a snake-oil enterprise, distinctly inferior to “real” teaching. This is not the place to go into a discussion of the merits of online learning, but Noble’s avowed cyber-illiteracy—he refuses to even use e-mail—serves him poorly as a critic of online teaching (Young, “David Noble’s Battle . . .”). His blanket pedagogical criticism will ring false to those who have actually taught such courses, myself included. Online education can be a hollowed-out fraud of real learning, but in the hands of intelligent instructors it can be a powerful form of education.

So Noble’s warnings need to be taken even more seriously than they are by their own author. His fears over intellectual property should be heeded precisely because his pedagogical invective has so little credibility. If online learning was mere moonshine and snake oil, then the institutional seizure of online content would prove largely irrelevant; the fad would eventually pass and the danger would be gone. But online learning will prove much harder than Noble thinks, and once the profits do come in, the contracts that he has been excoriating will prove a serious problem indeed.

So what can be done?

The first step is that online instructors need to think of themselves as teachers and freelance writers. This means reading the fine print in contracts, and understanding precisely what the terminology means—and if it’s vague, demanding clarification. Legal guides currently published for freelance writers will provide instructors with a sense of what they are signing away when a contract demands all rights, or electronic rights, or just one-time rights. Because writers and their unions already have much hard-won experience with these issues, academic unions and professional groups would be wise to cultivate relations with writer’s groups, and even retain copyright lawyers.

There should be a model contract for online instruction. Campuses might not use it, but it would provide a starting point and a standard of comparison. Or online instructors could have a standard written rider agreement, asserting full or at least limited rights to their work; employers could be asked to sign this rider, thus superceding any competing provisos in the university contract. At the very minimum, online instructors should have a checklist of contractual questions for their employer to answer.

In saturated academic labor markets, though, job seekers are often in no position to make demands. This brings me to my broadest suggestion, the only one likely to have a long term effect or provide some protection to those lowest on the totem pole. Accreditation is the biggest cudgel that academia carries, for its loss can be a staggering and even fatal blow to a school. To guarantee instructor autonomy, their authority over course content and electronic rights should be a condition of accreditation. It will be an uphill battle to get this provision inserted into accreditation standards, for a great deal of money may be at stake. And after all, instructors do not enter teaching to spend their spare time debating contractual law. But if instructors and academic unions do not tangle with some online legal language now, they will find themselves facing more of it in the future—and on far less favorable terms.

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# Before and After the Web: An Interview with George P. Landow

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*Harvey L. Molloy*

Landow, who is Shaw Professor of English and Digital Culture and Director of the University Scholars Programme at the National University of Singapore, is currently on leave from Brown University, where he is Professor of English and Art History. His books on hypertext and digital culture include *Hypermedia and Literary Studies* (MIT, 1991), and *The Digital Word: Text-Based Computing in the Humanities* (MIT, 1993) both of which he edited with Paul Delany, and *Hypertext: The Convergence of Contemporary Critical Theory and Technology* (Johns Hopkins UP, 1992), which has appeared in various European and Asian languages and as *Hypertext in Hypertext* (Johns Hopkins UP, 1994), a greatly expanded electronic version with original texts by Derrida, reviews, student interventions, and works by other authors. In 1997, he published a much-expanded, completely revised version as *Hypertext 2.0*. He has also edited *Hyper/Text/Theory*. (Johns Hopkins UP, 1994).

Molloy is an Assistant Professor in the University Scholars Programme at the National University of Singapore (NUS). His research interests include information design and digital arts. He has seven years experience in the design industry working as an information designer and has worked for clients in the diverse fields of telecommunications, finance, education and the arts. He is currently the Programme's Web editor.

## THE WEB AND HYPERTEXT

HM: During the 90s, the Web came to dominate how we think about hypertext. What do you think about this domination?

GL: As someone who believes that the model of networked – i.e. uncentered, nonhierarchical – digital technology offers important potential for education, educational institutions, scholarly and creative work, and society as a whole, I am fascinated and delighted by the way the Web has taken hold. As someone who came from the pre-Web

hypertext community, I am saddened that people have had to settle for such an impoverished version of hypertextuality.

When I look back upon the history of hypertext, I realize that WWW is a kind of latter-day Hypercard in disseminating the idea and use of this kind of infotech: Like Hypercard, which came into being only after dozens of far richer systems had appeared, it appears free and extraordinarily easily to use. Of course, as soon as one tries to do anything rich and strange with either HTML or Hypercard, one begins to experience it much as boat owners tell me one experiences owning a sail boat – as a giant hole into which one pours unlimited time and money.

The lesson of both Hypercard and WWW seems to be that this misleadingly easy first experience leads to great success; the lesson of WWW seems to be that the networked model – this first step towards Nelson's Docuverse – matters more than anything else.

HM: What are the limitations of HTML and the Web?

GL: Essentially HTML is a very basic formatting language that looks virtually identical to all the old mainframe and DOS word-processing software – IBM Script, Zywrite, and so on – to which have been added the capacity to add links and images. Adding these two features was an act of genius. Basic HTML is extraordinarily easy to use, and with decent HTML editors, such as BBEdit, Dreamweaver, and Homesite, very easy to use for large projects or sites, using Eastgate Systems Storyspace 2.0 one can even create giant, multi-directory sites, and export them into usable HTML with fairly little effort. So getting started is fairly easy today, as any 12 year-old knows.

The Web today has at least three main deficiencies: First, digital textuality is essentially dynamic; HTML, like its richer predecessor and model, SGML, is suited chiefly to static texts that are created, formatted, and frozen. The very use of the term “homepage,” which derives from a very different world of print, immediately suggests both the difficulties of the technology and the way new users come to it with incorrect – and very limiting – paradigms. HTML and currently available browsers lack some key features that make maintaining any dynamic Web site very time-consuming and therefore expensive.

Second, and related to this last point, is the absence of two defining features of true hypertext – (1) one-to-many linking and (2) automatically generated menus of links available when one clicks on any link-anchor. The first feature, the capacity to attach multiple links to any point in the text or image, creates a vastly richer sense of hypertextuality; in fact many students who learn about hypertext first from an experience of Storyspace, Microcosm, or other systems, find they cannot translate their work into HTML because the Web is “so much flatter,” as they put it, than other forms of hypertext.

In my experience, the second feature, link menus automatically generated by the system, saves much more than half the time and effort required to manage a dynamic site. My sites now comprise more than 42,000 documents and images, and they grow

daily. Each time a new document comes to the *Victorian Web*, I have to do two things: First, I have to format it, which is fairly easy since one can use existing documents as templates for the new one. Second, and much more time-consuming and prone to error, I have to add links to the new doc from as many as six other menus, each of which has to be maintained manually. When one of my contributing editors from Canada (whom, incidentally, I have never met) e-mails an essay on Hardy and Conrad's use of Miltonic imagery and its relation to their fundamental ideas, links have to be added to the literary relations overviews for each author as well as similar documents for imagery and themes. In richer forms of hypertext, one simply adds a link to each subject heading in each author's overview using point-and-click techniques; in HTML, one has to edit six documents manually. What a lot of work!

A final problem exists in the instability of the Net. Ideally, one should be able to link to many other Web sites. In fact, painful experience proves that a large number of Webmasters, particularly graduate students, who request links to their sites, move or shut down their sites without warning, and server names seem to change at an astonishing rate, thereby breaking links. This fact means that one of the Web's greatest promises – a true Nelsonian Docuverse – hasn't been fulfilled.

HM: Do you think that the Web will continue to hold this dominant position? Do you think that future developments in markup languages – such as XML – will allow the Web to fulfill some of the visionary potential of hypertext as imagined by Bush and Nelson?

GL: According to people close to the latest developments in XML, it will have the strengths of SGML – essentially, tags describe a text element, such as a paragraph or book title, and one decides on formatting them from a central location. It also seems as if the Xlink protocols will finally give us one-to-many linking; now it's up to Microsoft and Netscape to produce decent browsers that will support such features. If they do, the Web world could change at light speed.

HM: Is there a danger that students and researchers will forget the power of other hypertext systems due to the dominance of the Web?

GL: No, I think the danger is that the great majority of students and researchers never even *learn* about other systems. For someone involved in the field since 1986 or '87, one of the most painful (or pathetic) things about much Web-based research projects in Computer Science is seeing people duplicate research done much earlier – often on things that proved to be complete dead-ends. Oh well, it keeps them off the street.

HM: In *Hypertext 2.0* you noted that “Hypertext also offers a means of experiencing the way a subject expert makes connections and formulates inquiries” (226). How does the Web fare in fulfilling this potential?

GL: Here I think the Web does an excellent job. The ease with which one can create what are essentially links to a glossary permits beginners to read with the help of expert readers – when they wish to do so.

## THE WEB AND EDUCATION

HM: The *Victorian Web* began as a Storyspace web – what was your experience in converting the *Victorian Web* from Storyspace to HTML? What were the effects of this change for authors and readers of the *Victorian Web*?

GL: First, an enormous amount of work, which continues on a daily basis. Second, an enormously larger audience that is now around a combined 7–8 million hits/month on my two sites (in Singapore and in the US). Third, as a result of the last effect, contributors to the *Victorian Web*, chiefly faculty members at other institutions and a few graduate students, have increased enormously. We now have around 500 faculty authors, and in the Victorian Web Books section, which consists of HTML translations of central books in the field, we now have a dozen important books originally published by Cornell, North Carolina, Oxford, Routledge, Princeton, Texas, and Yale UP. None of this could have happened without something like the Web.

HM: What's interesting to me about the *Victorian Web* and the *Hypertext and Critical Theory Web* is that you don't readily distinguish between student authors and established academic writers. Students are effectively engaged in scholarly research projects. Is hypertext unique in allowing students to become active researchers?

GL: Two comments: first, each *does* distinguish between undergraduate, postgraduate, and faculty contributors – at least to the extent that each byline indicates the status of the author. It does not distinguish among them to the extent that faculty and students or members of the general public comment upon one another's work.

Second, as so many other educational and cultural effects, hypertext makes vastly easier something theoretically possible earlier and occasionally practiced.

HM: In *Hypertext 2.0* you wrote that "Hypertext, by holding out the possibility of newly empowered, self-directed students, demands that we confront an entire range of questions about our conceptions of literary education" (219). What's your evaluation of the humanities' response to this possibility?

GL: Qualified medium-range optimism, I guess. Many young teachers immediately saw the possibilities of the Web and other forms of hypertext. For example, using both Storyspace and HTML, Massimo Riva of Brown constructed the massive bilingual

*Decameron Web* with contributions from students and scholars from the USA and Italy. Interestingly enough, scholars working in the fields concerned with earlier literatures – Greek and Latin, Anglo-Saxon, Old Irish, Old Norse, and so on – led the way whereas those in contemporary literature, film, and video often refused even to consider the possibilities of digital technologies. Brown's Department of Modern Culture and Media, which for almost a decade acted as if all media ended with television and video, blocked several attempts to have an official program or major in digital culture. In my own department, the medievalists and renaissance scholars have long been immersed in computing, but I have never been able to get those in the romantic and Victorian periods, including our chair, to look at the Victorian Web, much less use it for their courses or contribute to it themselves. As soon as I went on leave to come to the National University of Singapore, my department stopped teaching my hypertext courses, even though there are quite a few people who could have kept them going. The Old Guard, the Old Fellas (which in this case includes a large number of women), don't see what this stuff has to do with an English Department.

My off-the-cuff explanation is that although all modern education is based chiefly upon book technology, those working in earlier fields know the texts that they study and teach bear the marks of scribal, oral, and pre-print infotech; those who work in later fields are so inside the Gutenberg galaxy (as McLuhan called it) that they see anything else as fundamentally anticultural.

HM: Do you think that there's a danger that many teachers in humanities see hypertext as being about computers rather than being a means to do research?

GL: Yup. At the very least, they should be leading their students to learn how to evaluate the quality of information. Of course, since most secondary school teachers and college instructors today themselves don't know how to do research in traditional libraries, they can't extend these skills to the Net.

HM: What are some of the issues that need to be considered by Web publishers who want to create online editions of out-of-print books? How do footnotes, references and bibliographies work when a text is moved from print to hypertext?

GL: Since not all users have broadband access to the Internet, avoid adding links to notes where possible by using the following rules: First, all substantial notes should be given titles and treated as separate documents; second, incorporate as many brief comments and notes as possible into the main text; third, for bibliographical information include a list of works cited at the foot of each individual lexia (document) and then use the MLA short form of in-text citation, which means in practice that you only use as much info in the parenthetical reference as is absolutely necessary. Thus, if you introduce quoted material by "According to Spurgeon's "Christ the Lord," you only need a

page number: “quoted text” (34). If, however, you wrote, “According to a Victorian preacher . . .” you’d have to provide the necessary information in full: “quoted text” (Spurgeon, “Christ the Lord,” 34).

Most of the preceding recommendations, you’ll notice, come straight from the best of current book publishing practice. The problem is that many print publishers, including leading academic ones, have incompetent manuscript editors or inadequate house styles. Thirty-five years ago I was told by editors of leading journals and presses (a) not to use things like “Ibid.” or “Op. Cit.,” and (b) never to use unnecessary notes, but I still come upon books like Timothy Hilton’s fine biography of John Ruskin, the second volume of which Yale University Press published last year, that has pages and pages of tiny endnotes with Ibid. and page numbers. A good three-quarters of the endnotes, which are not easy to use in a massive volume, are useless. The lesson here is that one can get by with incompetent manuscript preparation in print, but such poor quality in a Web doc would be a disaster for readers, quickly training them not to follow *any* links!

The more interesting problems, which we face all the time in the *Victorian Web* Books – <http://www.scholars.nus.edu.sg/landow/victorian/misc/books.html> – include: (a) what to do with information created, even by the same author, since the book first appeared, (b) how does one add value with links to material not in the original book, and (c) how does one both preserve the text-as-a-book and make it function effectively as a digital text with permeable borders. Finally, can some of the solutions I’ve tried in the *Victorian Web* be carried out algorithmically?

## POWER, AUTHORITY, CONTROL, AND THE WEB

HM: In your introduction to the 1994 collection of essays *Hyper/Text/Theory* that you edited you wryly observed that the humanities excels in “finding mice in molehills.” Do you think that by subscribing to the narrative that the utopian idealism of the early 90s has now been superseded by systems of control and the search for the e-dollar that the humanities finds a late capitalist mouse in a cyberspace molehill? Has utopianism about the Web been replaced by a proliferation of technocapitalism and cybernetic governmentality?

GL: Although a certain cyber-utopianism has disappeared as a general characteristic of those involved in the Web, this change has happened in large part because new people with non-utopian goals have quite properly tried to earn a living with the new technology. I don’t see anything wrong in people trying to make money from doing things that other people need or want (not the same thing). At the same time a lot of people see the Web as a new virtual place of freedom. I find wonderfully encouraging the Web public’s refusal to accept channels and other attempts to turn hypertext into television. Michael Joyce’s brilliant challenge thus far has rung true: “Hypertext is the revenge of text upon television.” If it turns out that the most successful way to make money from

the Net is business-to-business sales, a few consumer fields, such as music distribution, and the like – that’s fine. None of this drives out more experimental writing and the like.

HM: While there has been a rise in cybergovernmentality, there also been a proliferation of free Web-hosting, free email services, free egroups, free Web logs. It’s never been so easy to publish your own material. Do you think that this is significant? Does the rise of these services have implications for teaching and research?

GL: Yes, we find ourselves in a situation of creative anarchy, and, like everyone else, I’m waiting to see how things will shake out and down. I also wonder how long services will remain “free,” or if certain aspects of Internet culture will eventually become a kind of inalienable right. It is also possible that, like broadcast TV, such free services will come at the expense of advertisements, in which case skilled reading will involve becoming blind to commercial enticements.

Certain obvious implications have already been realized: my students in Singapore, like those in the US, often develop their work on their own servers, rather than in (and on) University facilities. In addition, the ability to publish anything makes something like a conventional publisher, who selects, regularizes, and advertises, even more important. I don’t think the Web is the death of publishers – just the death of those who insist on remaining clueless.

HM: In *Hypertext 2.0* you argued that “Like other forms of technology, those involving information have shown a double-edged effect, though in the long run – sometimes the run has been very long indeed – the result has always been to democratize information and power” (276). What are some of the dynamics at work which result in this greater democratization?

GL: Although clearly many factors are involved, the single most important one, I believe, is the replacement of hierarchy by the uncenterable network. That makes top-down control difficult; hierarchy and lack of transparency almost unworkable; choice inevitable.

HM: Let’s talk a little about the issue of surveillance and openness. The extent to which Web surveillance has increased surely depends on very local issues. What do you see as the impact of the Web within Singapore and throughout the entire South-East Asia region?

GL: Key issues include (a) literacy, without which accessibility means nothing, (b) access to networked computers, and (c) access to high-speed networks. Much of the population of Singapore has more of these three capacities than most of Europe and America, and vastly more than their neighbors in the region, or countries in South America and Africa.

By announcing recently that Internet service providers are not legally liable for material their customers place on their web servers, the Singapore government took a giant step towards an open society. I have no idea how much Web surveillance actually happens here or throughout the world, though it seems to me that most of it takes a commercial turn, with merchandisers compiling elaborate profiles, which they then exchange with other commercial and possibly governmental entities.

I also don't have a clear idea of how much surveillance is in fact possible. We all know stories of the Jet Propulsion Lab storing incredible amounts of data sent back by unmanned space vehicles because they don't have capacities to process it. Even given the resources of NSA and the CIA, I wonder much they can accomplish with the vastly larger amounts of data that pour in from spy satellites, web crawlers, and the like. Singapore has only 3 million people, so the task would be easier *if* one had access to the same resources.

HM: How do you see copyright issues impinging on online publication and scholarship?

GL: Back somewhere around 1987, the Annenberg/Corporation for Public Broadcasting assembled about a dozen people in Cambridge, Massachusetts, and asked us what would be needed to make hypertext fulfill its potential as an educational and cultural force. Everyone agreed that the hardware and software will take care of themselves; the one factor that we had to work for was a new conception of copyright that involved something like leasing information for a tiny expenditure – Ted Nelson's vision, of course. Since then nothing has changed.

Unfortunately, too many of the judges and lawmakers who consider such issues throughout the world do not understand networked digitech. Worse, not realizing that many of their conceptions of intellectual property are print based, they assume their notions of intellectual property are universal. Of course, as many students of copyright law have pointed out, in the commercial world large corporations protect their ideas by means of secrecy, not copyright.

HM: What are some of the new issues in hypertext? What would you need to cover if you were writing *Hypertext 3.0*?

GL: The short answer is that if I knew, I'd be writing *Hypertext 3.0* right now. The longer one is that I'd have much more digital fiction, poetry and art to examine, and I'd expect to examine various debates over gender, textual embodiment, and other issues increasingly in contemporary critical theory. Of course, I am particularly eager to see if the promise of XML will be fulfilled.

section 4

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# **THE INFORMATION UNIVERSITY**



## ***Section 4: The Information University***

### **Introduction**

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*Marc Bousquet*

[G]rad students existed not to learn things but to relieve the tenured faculty members of tiresome burdens such as educating people and doing research. Within a month of his arrival, Randy solved some trivial computer problems for one of the other grad students. A week later, the chairman of the astronomy department called him over and said, “So, you’re the UNIX guru.” At the time, Randy was still stupid enough to be flattered by the attention, when he should have recognized them as bone-chilling words.

Three years later, he left the Astronomy Department without a degree, and with nothing to show for his labors except six hundred dollars in his bank account and a staggeringly comprehensive knowledge of UNIX. Later, he was to calculate that, at the going rates for programmers, the department had extracted about a quarter of a million dollars’ worth of work from him, in return for an outlay of less than twenty thousand.

—Neal Stephenson, *Cryptonomicon*

Most people understand the consequences for health of “managed care” – the calculus of profit ensures that the labor-time involved in actually treating illness will be continually reduced to a minimum established not by the measure of lives saved, but by the measure of financial risk: at what point do the fiscal liabilities for malpractice exceed the dollar savings of using fewer, cheaper, less experienced and less elaborately-trained personnel, older equipment, smaller precautions against infection and complication, shorter hospital stays, denying access to the best procedures in favor of cheap procedures, etc.? Under the informatic logic of capital accumulation, bodies are handled by health professionals not for their own sake, but for the sake of precipitating a steady drip of profit from the stream of health activity.

The logic of the HMO increasingly rules higher education. Most observers agree that as little as a quarter of all higher ed teaching is done by the professoriate. Just as Neal Stephenson's Randy learns: most of the teaching is done by graduate students still paid as little as seven thousand dollars a year (and rarely more than fifteen), by adjuncts (former grad students) working at similar rates of pay, and nontenurable instructors with huge workloads and no research agenda. Similarly, research is increasingly performed by a corps of assistants, technicians, and grad students under the supervision of a tenured member of the faculty (who takes the credit, and a better paycheck, but whose own life may well be diminished by the compulsion to serve as a manager, rather than a teacher and scholar).

My own contribution to this section discusses the "information university" as a place where grad students, teachers, faculty – even undergraduates – are increasingly compelled to deliver their labor in the "mode of information." Delivering our bodies as if they were cheap, quickly-transferred, standardized icons on the desktop of university management makes the work of education management feel transparent and effortless (point and click: a section has opened; click again: excess anthropology staff instantly trimmed from the payroll). But all of this managerial effortlessness requires embodied workers to expend enormous additional efforts – driving sixty miles between adjunct gigs, scrambling for health care and child care, keeping "up to date" in our leisure time, et cetera. By institutionalizing flex workers, outsourcing, and other forms of cheap labor (even using convict workers), higher ed increasingly resembles health care as a field that accumulates in the service economy mode – from putting to work a large mass of low-wage personnel, especially students (for whom the designation "student" increasingly implies a multi-year term of service as a low-wage worker). The fact that the university accumulates in the form of endowments, permanent budget lines, new libraries, dormitories and sports facilities (rather than stock value & dividends) seems to make little difference to the logic of its operation. Indeed, as Sassen observes of the informal sectors of the service economy, higher ed may derive specific benefits from the "semi-formality" and under-regulation of academic work practices, especially insofar as the labor of "students" is concerned.

With massive reductions in government financing of research, and the changes in intellectual property law, universities are increasingly aimed toward corporate interests, seeking corporate grant funding for directed research in the service of a particular company's profit agenda, or angling for direct commercial revenue themselves. The ideal form of this transformed higher ed is what Wall Street has long been calling the "EMO," or for-profit education organization. Ken Saltman's withering examination of former junk-bond king Michael Milken's predatory forays into for-profit education illustrates the forthrightness of motive: Milken's "Knowledge Universe" mission statement reads, "Education must address corporate needs," and construes the "individual needs" and "personal fulfillment" of citizens in purely labor-market terms, of responsiveness to "rapid corporate evolution and frequent restructuring." In K-12 as well as higher ed, Saltman scrutinizes how one convicted felon is ruthlessly "transforming pub-

lic education into an investment opportunity for the wealthy by privatizing public schools, making kids into a captive audience for marketers, and redefining education as a corporate resource rather than a public good vital to the promotion of a democratic society.”

Tim Luke provides a detailed analysis of the differing aims of the ways to which various constituencies of the academic community are deploying information technology. On the one hand, there is a large community of artisanal users with a craft orientation to the technology, dedicating their labor to smaller-scale “custom-made sites” for individual deployment. But increasingly university management has rolled out standardized deployments of software and hardware “for large-scale teaching, class administration and content management.” The latter group can be used to increase the size of classes and reduce the number of research faculty teaching on just one campus, or they can be used for Web delivery of teaching. Tracing the displacement of traditional *bildungsphilosophie* by the standardized and vocationalized pedagogies increasingly supported by IT, and the companion logic that conceives of education as the “transmission of information” or “content provision,” Luke discusses some of the ways that IT can be re-deployed under an alternative logic (and produce an alternate future) by enhancing contact-style teaching through craft-labor practices.

Relating the critique of technological-emancipation narratives to the larger question of philosophies of history and temporality more generally, Stephanie Tripp addresses *Spectres of Marx*, the text featuring some of Derrida’s most detailed encounters with both historical materialism and information technology. She seeks the “spectral moment” wherein academic workers might connect their multiple experiences of abstraction (the “virtuality” of their professional work, the abstraction of surplus value from their labor time, the “out of joint” structure of feeling characterizing the sense that academic workers can observe but not affect history, etc.) to the world of matter and contribute to the reality of historical transformation. Following Derrida’s commentary on the *Communist Manifesto*, she finds the possibility of historical-material agency in a “messianic” posture toward the present, a commitment to a different horizon of possibility, a renunciation of the metaphysics of pragmatic possibility (and realistic expectations), the will to remain revolutionary in a lifeworld in which the possibility of revolution appears to have been foreclosed.



# The Informatics of Higher Education

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*Marc Bousquet*

Class struggle is basic to the capitalist mode of production in the region of “mental” labor, just as it is to be found in the realm of physical production. It is basic not because it is a sign of the special quality of mental labor, but because it is simply labor.

—George Caffentzis, “Why Machines Cannot Create Value”

In this essay, I want to explore what can be called the informatics of U.S. higher education—the managerial logic through which university administrators have transformed the academic workplace on the model of information, so that education (and the labor providing it) is increasingly “delivered” as data, flowing in a bitstream highly responsive to managerial direction. As David Noble, Randy Martin, Gary Rhoades and others have observed, the new realities of managed education strongly correspond to the better-understood realities of managed care. The structural correspondences between the health maintenance organization (HMO) and the managed university (whose ideal form is the for-profit EMO) can be elaborated in many registers: both education and health have been increasingly “marketized,” transformed into sites of unprecedented capital accumulation by way of the commodification of activities and relationships, the selling-off and spinning-off of public assets and activities into private hands, the introduction of market behaviors (such as competition for resources and profit-seeking) into professional cultures, the unapologetic delivery of degraded service or even denial of service to the vast majority of the working class, and the installation of corporate-managerial strata to direct professional labor toward this neoliberal agenda.<sup>1</sup>

There are, however, interesting differences in the social reception of managed health care and the managed university. First, there is a striking contrast in the overall affect displayed toward these transformations: the HMO is universally reviled, while “student satisfaction” with management-dominated higher education has never been higher, at least according to corporate-university surveys. According to these sources, students in all institution categories are overwhelmingly satisfied with the learning dimensions of

their college experience, in many cases reserving their complaints for the quality of food and availability of parking.<sup>2</sup> Second, the transformations in higher education are widely perceived as technology-driven. Much of even the most-informed and committed discourse in the field is obsessively focused on information technology as the engine of change. This leads to the likely-mistaken concern that the “real issue” with the management revolution in higher education is that all campus-bound activities will be vacated in the metastatic spread of distance education—as in Noble’s widely-known formulation of “digital diploma mills” producing the “automation of higher education.”

It is important that these two differences in the social reception of the managed university push toward partly conflicting conclusions. On the one hand, the concern with technology represents the faculty’s idea that students are willing to accept a disembodied educational experience in a future virtual university of informatic instruction. On the other hand, the student concerns are overwhelmingly attentive to the embodied character of their experience—where to park, what to eat, and so on. Why do the faculty envision students willing to give up the embodied experience of the campus, when the students are in fact increasingly attentive to embodied experience? Campus administrators continue to build new stadiums, restaurants, fitness facilities, media rooms, libraries, laboratories, gardens, dormitories and hotels: are these huge new building projects, funded by thirty years of faculty downsizing, really about to be turned into ghost towns? In my view, the claim that (future) students will generally accept a disembodied education experience is at least a partial displacement of the underlying recognition, not that future students will accept an “education experience divorced from the body,” but the extent to which present students have already accepted an embodied experience divorced from “education.” While the dystopic image of distance education captures the central strategy of the information university (substituting information delivery for education), that dystopia erroneously maps the strategy onto the future, as if informationalization were something “about to happen” that could be headed off at the pass, if we just cut all the fiber-optic cables.

What does it mean for students and teachers that informationalization has already happened? It means that we have met the Info. U., and it is us—not some future disembodiment, but a fully-lived present reality already experienced in the muscular rhythm of everyday life.

Understanding the information university as an accomplished fact means understanding that we’ve already done a pretty good job of translating education into information delivery over the past 30 years, and further understanding that this substitution has been accomplished by transformation of the academic workplace rather than by stringing optic cable.

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## INFORMATIONALIZATION WITHOUT INFORMATION TECHNOLOGY?

"I am very troubled by it," said Tom Hanks. "But it's coming down, man. It's going to happen. And I'm not sure what actors can do about it." The spectre of the digital actor—a kind of cyberslave who does the producer's bidding without a whimper or salary—has been a figure of terror for the last few years in Hollywood, as early technical experiments proved that it was at least possible to create a computer image that could plausibly replace a human being.

—"Movie Stars Fear Inroads by Upstart Digital Actors," Rick Lyman, *The New York Times*, July 8, 2001

The text that in some ways strikes nearest and in other ways less close to this understanding is the well-known series of articles drafted by David Noble in the late 1990s (subsequently revised and released as a monograph by Monthly Review Press, November 2001). Taking Noble's work in the Digital Diploma series as a starting point is helpful not only because it has been widely disseminated across the World Wide Web, but also because the analysis originates in the actual workplace struggle of faculty in California and Canada, and because it maps the area of starkest contrast in the technology conversation: at the bargaining table, with the tenure-stream faculty mostly "against technology" and the administration mostly "for technology." This conflict is at least partially chimerical: the faculty and the administration aren't primarily struggling over technology, but rather what they think "it" will do—something they agree on, and regarding which they're quite possibly both wrong. The faculty and administration are fighting over what is essentially a shared vision, a vision of a future "created by" information technology, of a fully downloadable and teacherless education (at least for some people). The material base of this shared vision is a real struggle over the elimination of the jobs of teachers and scholars: the administration seeks to employ ever fewer teachers and scholars, and the tenured faculty seeks to preserve their own jobs and even occasionally exerts themselves to preserve a handful of positions for a future professoriate. (The recent CSU contract, through which the California Faculty Association compelled the administration to raise tenure-track hiring by 20% annually over the life of the contract in exchange for concessions in their cost of living adjustment is an eye-opening, and heartening, exception to the rule.) Technology fuels an enormous fantasy on both sides of this fence. On the administration side, it drives an academic-capitalist

fantasy of unlimited accumulation, dollars for credits nearly unmediated by faculty labor—as Noble says, an “automated” wealth creation. The professoriate has its own equally fantastic idea, that they are preserving teacher work by taking a stand “against technology.”

The shared vision of a fully-downloadable education creates the scene of a pseudo-struggle, with the depressing consequence that it drains off the energies seeking to preserve the dignity of academic work. Noble himself acknowledges that the struggle over technology is a surface conflict (“a vehicle and disarming disguise”); beneath the technological transformation, “and camouflaged by it” is the major transformation represented by the commodification of higher education. Noble narrates the commodification process as a two-stage affair: phase one begins about 1980 with the commodification of research (“the systematic conversion of intellectual activity into intellectual capital and, hence, intellectual property”), converting the university into a purveyor in the commercial marketplace of the products of mental labor. Phase two as he tells it (and this is the chief point at which I vary with his analysis) is what he describes as the more recent corresponding corporate colonization of teaching, the “commoditization of the education function of the university.”<sup>3</sup> Several useful insights flow out of the commodification heuristic as applied by Noble, including the understanding that universities are increasingly in open partnership with software, hardware and courseware vendors in the conversion of student learning activity into a profit center, and that—in an area also importantly discussed by Stanley Aronowitz and Dan Schiller—this partnership extends beyond the education vendors into the corporate world more generally, with the university eager to provide corporate training and retraining services (“lifelong learning”), an activity for which the rubric of “higher education” serves largely as a kind of academic-capitalist’s flag of convenience. In a scathing indictment of the growing “mission differentiation” of postsecondary institutions (providing tiered learning horizons corresponding closely to the class fractions of their constitutencies), Stanley Aronowitz argues that most college students receive “higher training” and not higher learning and that overall “there is little that would qualify as higher learning in the United States” (2000: 157–172).

The primary way in which Noble makes use of the “commodification of teaching” heuristic is to relate faculty labor to “the historic plight of other skilled workers” for whom technological change provides a vector through which management can impose reductions in workplace autonomy and control—so that for academic administration the ultimate goal of technological deployment is to “discipline, deskill and displace” the skilled faculty workforce, just as in any other labor circumstance. (This is a point that Gary Rhoades has also made quite well.) For the most part, again, this approach is enormously helpful (to a real extent because it generates an accurate description of administrative intentions regarding technology). Furthermore, because—as Harry Braverman and the Italian autonomists have been at pains to demonstrate—mental labor is in fact labor (despite the folk-academic sense of exceptionalism), Noble’s series of observations paralleling skilled academic work with other forms of skilled work largely ring true.<sup>4</sup>

Management dissemination of technology has been used to surveil, punish, regiment, censor, and control faculty; to direct how they allocate time and effort; to cement administrative control over the curriculum, and to impose supplemental duties including technological self-education and continuous availability to students and administration via email. In some cases technology has even displaced living labor entirely with automated learning programs tended by software maintenance and courseware sales personnel.

Nonetheless, any discussion of “technologization” is going to leave us room to say more about what is “informationalized” about the information university. Noble is right that the administration’s motive in attempting to get faculty to convert their courses to courseware is ultimately to dispense with faculty altogether. He compares the plight of the tenure-stream faculty to the plight of the machinist Rudy Hertz in Vonnegut’s *Player Piano*: “They buy him a beer. They capture his skills on tape. Then they fire him.” But does dispensing with the “skilled academic labor” of the tenured faculty result in the workerless academic environment Noble pictures? Not at all: there are more academic workers than ever before. Noble writes as if the information university were a fully “lights-out” knowledge factory, an entire virtual u. on a bank of hard-drives facelessly dispensing information to students across the globe. This science-fiction view of an automated higher-ed completely captures administrative ambition (i.e., for academic capital to emancipate itself from academic labor, realizing value magically in a workerless scheme of dollars for credits completely unmediated by teaching). It equally captures the anxiety of the tenure-stream faculty regarding the systematic imperative relentlessly driving toward the elimination of their positions. Nonetheless it risks missing the underlying reality: dispensing with the skilled professoriate is accompanied by the installation of a vast cadre of differently-skilled workers—graduate students, part-time faculty, technology specialists, writing consultants, and so forth. (Similarly: replacing Tom Hanks with a “digital actor” doesn’t result in a workerless artistic production, but instead involves a battalion of talents that are differently but perhaps not “less” skilled: programmers, choreographers, caricaturists, physical anthropologists, animators, scene painters, photographers, voice artists, continuity experts, caterers, writers, and so forth.)

In trying to understand what is “informationalized” about the information university, we need to shift our focus to the consciousness and circumstances of the new group of education workers called into being by this transformation of the work process. This transformation cannot be exclusively a question of delivering labor, teacher labor or any other kind, in a commodity form—it is after all a general feature of all capitalisms that workers are required to “sell their labor” in order to live. Rather, informationalization is about delivering labor in the mode of information. A word about informationalization and the material world is probably in order. Generally speaking, informationalization does not mean that we cease to have or handle things, or that we have and handle virtual objects “instead of” the material world (as in Negroponte’s formulation that we move bits “instead of” atoms). Instead it means that we continue to have and handle

material objects (more and more of them, at least in the thing-rich daily life of the northern hemisphere) but that we have and handle these objects in what Mark Poster calls “the mode of information,” which means that we manipulate objects as if they were data. It’s not that we don’t have car parts, novels, and armored divisions—only now we expect those things to be available to us in a manner approximating the way in which information is available to us. A fully informationalized carburetor is available in the way that electronically-mediated data is available—on demand, just in time. When you’re not thinking of your carburetor, it’s off your desktop. When you need to think about it, the informationalized carburetor lets you know. When it does manifest itself it gives the illusion of a startling transparency—you have in the carburetor’s manifestation the sense that you have everything you need to know about carburetors: how they work, fair prices for them here and in the next state, and so on. Informationalization means that artifacts are available on an informatic logic: on demand, just in time and fully catalogued; they should feel transparent and be networked, and so forth. Informationalization creates data streams alongside, crossing, and enfolding atomic motion, but doesn’t in most cases replace atomic motion. To the contrary, information-alization is a constant pressure accelerating and multiplying atomic motion toward the ideal speed of the bitstream and toward the ideal efficiency of capturing (as profit) the action of every fingertip, eyeball, and synaptic pulse.<sup>5</sup>

So what does it mean to labor “in the mode of information?” Above all, it means to deliver one’s labor “just in time” and “on demand,” to work “flexibly.” As Castells observes, the informational transformation relies even more on just-in-time labor than on just-in-time supplies (289). One doesn’t have to be employed “part time” to be forced to work in this fashion—one can have a “full-time” job and experience contingency (as many as a third of even the most economically privileged quartile of the work force, 4-year college graduates, report involuntary unemployment of several months or more in the years after graduation, while moving between what is usually a string of “full-time” jobs, often without benefits or seniority protections.) Nor does laboring in the mode of information necessarily imply “being an information worker,” but instead, the application to information workers of the management controls developed for the industrial workplace. In many respects this can be viewed as the extension of the process of scientific management to all forms of labor, as Braverman observed in his study of the rationalization of office work (293–358), even the work of management itself (see Bill Vaughn’s “I Was an Adjunct Administrator”). Constrained to manifest itself as data, labor appears when needed on the management desktop—fully trained, “ready to go out of the box,” and so forth—and after appearing upon administrative command, labor in this form should ideally instantly disappear.

When the task is completed, labor organized on the informatic principle goes off-line, off the clock, and—most important—off the balance sheets. This labor is required to present itself to management scrutiny as “independent” and “self-motivated,” even “joyful”—that is, able to provide herself with health care, pension plan, day care, employment to fill in the downtime, and eagerly willing to keep herself “up to speed”

on developments transpiring in the corporate frame even though not receiving wages from the corporation; above all, contingent labor should present the affect of enjoyment: she must seem transparently glad to work, as in the knowledge worker's mantra: "I love what I'm doing!"<sup>6</sup> As with other forms of consumerist enjoyment, the flex-timer generally pays for the chance to work—buying subscriptions to keep up, writing tuition checks, donating time to "internships" and unpaid training, flying herself to "professional development" opportunities—in all respects shouldering the expense of maintaining herself in constant readiness for her "right to work" to be activated by the management keystroke. Contrary to the fantasy of the sedentary knowledge worker who "telecommutes" and never leaves home, the actual flex-timer is in constant motion, driving from workplace to workplace, from training seminar to daycare, grocery store and gym, maintaining an ever more strenuous existence in order to present the working body required by capital: healthy, childless, trained, and alert, displaying an affect of pride in representing zero drain on the corporation's resources.

Laboring in an informatic mode does not mean laboring with less effort—as if informationalized work was inevitably some form of knowledge teamwork scootering around the snack bar, a bunch of chums dreaming up the quarterly scheduled product innovation. Laboring in an informatic mode means laboring in a way that labor-management feels effortless: the relevant perspective is the management desktop, from which labor power can be made to appear and disappear with a keystroke. Informationalized labor is always informationalized for management, i.e., so that management can always have labor available to it "in the mode of information," called up effortlessly, dismissed at will, immediately off the administrative mind once out of sight. Indeed: for labor-management to feel so transparent and so effortless, a great deal of additional effort has to be expended (just not by management). For capital to have labor appear and disappear at the speed of the bitstream might, for instance, require concrete labor to drive sixty miles between part-time gigs, gulping fast food on the highway, leaving its children unattended: the informatic mode doesn't eliminate this effort, it just makes it disappear from the management calculus. Informationalism cannot present labor in the form of data without offloading the costs of feeding, housing, training, entertaining, reproducing, and clothing labor—power onto locations in the system other than the location using that labor power.

To return to the Hollywood producer's fantasy of the "cyberslave" that will "do his bidding without a whimper or a salary": really understanding the informational transformation means acknowledging that Hollywood producers already have an enormous army of "cyberslaves" who don't complain or ask for a salary: they're called actors. (In *All About Eve*, Bette Davis comments on the cost of a union caterer—presumably a would-be actor—by grumbling that she "could get an actor for less," i.e., that she could pay an accomplished actor less to "perform the role" of catering her party than she would have to pay a would-be actor to "be the caterer.") Under the regime of information capitalism, a film producer can often get a human being to act informationally—to leap at his command, even anticipate the snap of his fingers, and then obligingly dis-

appear—at a labor cost to himself of exactly zero, except where restrained by the talent unions. But these living and breathing, unwaged “slaves” of the representational economy aren’t fed and housed and educated at no cost—just at no cost to the film producer.

So in reality it “takes a village” to present informationalized labor to capital. This form of the work process, “flexible,” “casual,” permanently temporary, outsourced, and so on, offloads the care and maintenance of the working body onto society—typically, onto the flex worker’s parents or a more traditionally-employed partner, as well as onto social institutions. This means especially, in the U.S., the health care provided at the emergency room and the job training provided by “higher education.”<sup>7</sup> In the northern hemisphere, the operation of global capital somewhat cushions the care of higher-latitude flex workers by providing cheap consumer goods produced by contingent labor in the southern factories, so that, without the assistance of a parent or traditionally-employed partner, northern-hemisphere flex workers commonly cannot afford to buy real property (a home) or services (health care, legal services, day care, etc) at northern-hemisphere prices. Nonetheless they may be otherwise rich in possessions fabricated by southern labor (compact discs, computer hardware, clothing, assembly-required furniture). The most substantial expenditures made by the northern-hemisphere flex worker are commonly the debt-funded car and tuition payments that for many of them figure as prerequisites for entering the flex-time economy in the first place.

The research of Saskia Sassen and others has been helpful for understanding the relationship between sites of high technological sophistication, especially cities of the advanced economy, and the enormous growth of low-wage, low-profit economic activity in those sites (a fact that confounds most information-society propagandists). Some of this work is formally casual or contingent (legal part-time or term work), some of it is legal full-time but with extremely low degrees of worker security and on-the-job protection (Sassen observes that under globalization, firms migrate not to where labor is cheapest but to where labor can be most easily controlled, including the urban centers of advanced economies with large migrant populations), and much of this low-profit, low-wage work is informal. As Sassen observes, the “informal” sector is not easy to define and, while akin to elements of the “underground economy” (i.e., dealers in illegal goods and services such as drugs and prostitution, and financial services associated with tax evasion), the “informal economy” encompasses activities that would otherwise be legal (garment manufacture, child care, gardening, home renovation) but are performed in illicit circumstances, either by being performed outside of or in an unclear regulatory environment, or by persons working illegally (such as underage or undocumented workers). This group includes an extremely disparate collation of workers: high-school baby-sitters, sweatshop labor, neighborhood day care providers, construction day laborers, farm hands, and gypsy cab drivers. The informal sector has grown swiftly and unexpectedly in the U.S. since 1980, and Sassen has argued forcefully that this expansion is structurally related to the characteristics of the “formal” economy itself. In her work on immigrant workers in urban centers, for

example, she observes that the rapid expansion of the informal sector of advanced economies is neither accidental nor the consequence of the “failings” or “inabilities” of third world economies, from which cheap labor migrates to the first world. Instead, the informal sector is in her view “the structured outcome of current trends in advanced economies”(1997: 4–5; also see 1988: 7–9; 151–170). Which is to say: immigration and other “external” factors don’t “cause” sectors of advanced economies to become informal; advanced economies require the emergence of informality within themselves, resulting from “the structural characteristics of advanced capitalism” itself and the “flexibility-maximizing strategies by individuals and firms” in that system (1997:19). Samir Radwan redacts Sassen’s observation as follows: “If the informal economy did not exist, the formal economy would have to invent it” (Sassen 1997: 2). The processes of rendering-informal are for Sassen the “low-cost equivalent” of the expensive, arduous, and politically charged activities of formal deregulation (that transpire in high-profit sectors of the economy), a corresponding shadow or de facto deregulation “which rests on the backs of “low-profit firms and low-wage workers” (1997:19). These insights might be brought to bear on the present discussion by saying, “It takes a high-tech city (or at least a college) to deliver informationalized labor to capital.”

Certainly any understanding of the relationship between the murkily “informal” and the deceptively transparent “informational” in the advanced economies requires a great deal of further research and theorization. Even limited research questions such as “What role might the information university play in helping the formal economy to ‘invent’ the relations sustaining the informal economy?” beg book-length empirical studies of their own.

But I do think we might make at least some theoretical progress by asking ourselves what can be gained by seeing colleges and universities as a version of these “low-profit firms” operating, not in a fully informal fashion, but to a certain degree in a less-than-formal fashion, that is, in an environment of under-regulation, or in which the regulatory status of its workers is less than clear.

In terms of university accumulation, the emphasis has been to look at the activities of the top 100 research universities in the U.S., and in the light of deregulation of patent law, for instance, see the activities of these institutions as the bellwether of the university’s emergence as at least potentially a “high-profit, high wage” information industry. (And this line of approach has appeared reasonable, in connection with such visible developments as the university’s emergence as a competitor with entertainment capital to provide sports and other programming to media outlets.) With Bill Readings, many have been inclined to view the university as a transnational bureaucratic corporation that, in a deregulated environment, is increasingly a global purveyor of educational services and research commodities.

But this construction of the informational transformation within academic capitalism is hardly typical of the other 4,000-plus U.S. institutions of higher education. Strict

attention to the expenditure of labor time in these other locations gives a radically different picture of the information university than the fantasy of a workbench for faculty information entrepreneurs or a gateway to the “information society” for students.

What would happen if we asked, pursuing Sassen, to what degree is the university’s role in the advanced economies of the informational society structurally related to the relative informality of its employment relations? In raising this question, I am not at this time making an analogy between university workers and day laborers or migrant workers (though such analogies have been made, with greater and lesser degrees of applicability), or pointing to the financial relations between universities and garment sweatshops (such as those opposed by USAS and other student protest organizations). Nor am I addressing the university’s exploitation of its staff, as documented in the recent Harvard and Johns Hopkins living wage campaigns, for example (see Harvey 126–129), though these connections can and must be made as a matter of analysis and workplace organization. For purposes of this particular effort, I am pointing primarily to the actual legal and social confusion regarding the workplace status of the most visible and even traditional members of the academic work force, the professoriate itself, together with graduate and undergraduate students.

Perhaps the most obvious legal confusion surrounds the status of the graduate employee, many of whom over the last two decades have engaged in legal battles to win recognition that they are in fact workers (as in California and Illinois, and at Yale, NYU, and elsewhere), some lasting eight or ten years. Increasingly the designation “graduate student” has over the past thirty or thirty-five years served as a vector for the university’s cultivation of a “semi-formal” employment relation, in which graduate employees have all of the responsibilities of labor, including a teaching load heavier than many of their professors, commonly an employment contract, supervision, job training, a taxable wage, and so on, but enjoy fewer protections than the regular work force. For instance, graduate employees are generally ineligible for unemployment benefits, and unlike regular workers can be compelled to pay “tuition” for their on-the-job training, shoulder job-related expenses, including the production of course-related materials, supplement a sub-living wage with unforgivable debt (student debt, unlike commercial debt or even consumer credit, cannot be forgiven in bankruptcy) and engage in various forms of unpaid labor (in keeping with various ideologies of “apprenticeship,” “mentoring,” and “professionalism,” even though for most the term of mentoring and apprenticeship will not lead to professional employment). Nor can a graduate employee who doesn’t like her working conditions quit her employer and go to an alternative employer in the usual fashion: students who are unable to live on their stipends cannot easily move to a higher-paying program, and those who are not economically situated to take on debt to finish their degrees on the gamble of winning a professorial job are likely to quit rather than change programs.

This is not to say that justifications cannot be offered for the unusual circumstances of graduate employee labor. It is only to observe that the circumstances are indeed “spe-

cial” enough for universities to fight to keep the specialness of the “student” designation, including in some cases spending lavishly on union-busting law firms. Correspondingly, many graduate employees find the “specialness” of this designation so disempowering that some are willing to struggle during the whole term of their graduate careers to escape from “specialness” and win the rights of labor, including collective bargaining. Whether one supports graduate employee unionism or not, it is simply an observable fact that significant numbers of graduate employees are eager to enter circumstances resembling the more regulated environment of other workers.

For most of the past quarter century, the faculty also have worked in a contested and murky regulation environment. This is obviously the case with term workers and part-time faculty, some of whom for example have sued the state of Washington for retirement benefits. But the move to substitute flexible labor for faculty labor also transformed the role of the remaining tenure-stream faculty, who acquired additional supervisory duties in relation to the new graduate students and other flex workers. The 1980 Supreme Court decision in *NLRB v. Yeshiva* (444 U.S. 672) barred faculty at private universities from unionizing because the court viewed the activities of tenure-stream faculty as essentially managerial. Here again, the various efforts of faculty to overturn the *Yeshiva* decision don’t erase the “specialness” of their place in the academic labor process, which indeed commonly includes managerial responsibility, but it does indicate the preference of the employer to conserve the special relationship, and the degree to which at least some faculties, finding this specialness disempowering, seek to clarify it in law and policy.

Of course if it is at all useful to theorize the university as a semi-formal employer, discussing the conversion of graduate education to labor in the mode of information and the increasing managerialism of the faculty is only to have scratched the surface. To go on, we must investigate the ways in which the Info U. has transformed undergraduate experience in the quest for new wage workers, and critically examine the forms of semi-formal work to which the undergraduate has been increasingly dedicated over the same period of time.

To return to the three forms of labor commonly employed by “low-wage, low-profit” firms (casual, full-time but pragmatically contingent, informal): it is clear that since the late 1960s that higher education has expanded its reliance on casual, full-time contingent and the semi-formal labor of students, while also winning new “informalities” in its relationship with the professoriate (this de-formalization can be understood not just in the above-noted sense of the murkiness of the faculty role in the labor process caused by increased dedication of professorial labor time to the work of management, but even in the everyday withdrawal of support for research-related expenses: in my discipline, many faculty even at schools where research is required for tenure, pay most of their research and conference travel expenses out of their salaries, salaries that are in most cases already far lower than those with other “professional” degrees). There are, of course, other sectors of higher education (sci-tech, finance) that can be analyzed in relation to “high profit, high

wage” dimensions of information capitalism (though even at the handful of top research universities where such analysis is appropriate, the financial return on research dollars is notoriously low, considered as a capitalist “investment,” rather than a social good).

But the evidence of the other, larger trends with which I am concerned appears to suggest the necessity of considering the university’s role in information capitalism to be in many respects a role understandable in connection with the sort of “low wage, low-profit” firms with which Sassen has been concerned, where pressure toward “informality” is highest, and where workforces are chosen not merely for their cheapness, but also for ease of managerial control. As Sassen observes, “it is also their powerlessness which makes them profitable” (1988: 40), a powerlessness that emerges not only from the deskilling observed by Noble, and the industrialization of office work observed by Braverman, but also, especially in the low-cost, low-wage firm, from a “system of control” that is “immediate and personal,” in which employers can respond to worker dissatisfaction and complaints simply “by firing them” (1988: 42). The observation that low-wage, low-profit firms are driven (by competition) toward informalization of the workplace (hiring undocumented workers or evading other regulations), and derive competitive advantages from increased control over the worker, would seem to have at least some parallel importance for understanding transformations in the academic labor process.

This would lead us to ask in what ways the informatic logic of the university’s labor process—its dedication to the casual, full-time, contingent and semi-formal processes of labor “in the mode of information”—contributes to an increasing powerlessness of faculty, students and the citizens who emerge from the higher education experience?

## **ACADEMIC EMPLOYERS AND THE INFORMATIC SABOTAGE OF EDUCATION**

Escaping the regulatory apparatus of the formal economy enhances  
the economic opportunities of such firms.

—Saskia Sassen

While it is highly questionable how many professors have been fired in consequence of having “their skills captured on tape,” we are nonetheless witnessing the disappearance of the professoriate. The teacherless classroom is no future possibility, but instead the most pressing feature of contemporary academic reality: it is difficult to find any sector of higher education institutions in North America where the full-time professoriate teaches more than thirty percent of course sections—even in the Ivy League (Coalition of Graduate Employee Unions 2000). The elimination over three decades (chiefly by attrition and retirement incentives) didn’t reduce the amount of teacher work being per-

formed; it just handed teacher work to term workers who serve as administered labor and not collegially. In some departments of public institutions, as little as ten percent of the teaching is done by professorial faculty. With occasional exceptions, most of this cadre of students and former students serving as term workers figure as the ideal type of labor—power “in the informatic mode”—they can be called up by the dean or program administrator even after the semester has begun, and can be dismissed at will; they have few rights to due process; they are frequently grateful to “have the chance to do what they love;” most rely on parents or a traditionally-employed partner for shelter, access to health care, day care and so on; of the rest, many are willing to finance their own sometimes-continuous training with as much as one hundred thousand dollars of debt. Surely this transformation of the academic work process, the substitution by attrition of contingent labor for faculty labor, is the core feature of educational informatics—a perfected system for recruiting, delivering, and ideologically reproducing an all-but-self-funding cadre of low-cost but highly-trained “just in time” labor power. Little wonder that every other transnational corporation wants to emulate the campus. By nearly any measure, the university represents the leading edge of labor in the informational mode.

What needs to be added to the commodification critique represented so well by Noble’s analysis is a systematic accounting for the core transformation represented by casualization. On the one hand, this analysis is pushing toward exactly the right pressure point—informationalization as a matter of the workplace—and yet by focusing on the question of transmitting course content over a distance, the commodification critique incompletely addresses the experience of living labor, especially the majority of academic labor represented by flex workers. Another way of saying this is to observe that Noble has a hold of what is incontestably the likeliest agent for resisting and controlling that transformation, and for articulating the labor of the North American academy to global proletarian movements—the faculty union—but then goes on to share into the thirty-year disappointing failure of academic unions to confront casualization. As I’ve written previously in *Workplace*: this is a story that deserves to be told in the key of Shakespearean tragedy, where one’s virtues are equally one’s flaws (Lear’s fondness, Hamlet’s phlegm): since 1970, the academy has become one of the most-unionized sectors of the North American workforce, and yet it’s been a unionization inattentive to management’s stunningly successful installation of a casualized second tier of labor. While 44% of all faculty and nearly 2/3 of public-institution faculty are unionized (by comparison to about 14% of the workforce at large and 30% of public-sector employees), consciousness regarding what to do about the contingent workers of the second tier has been slow to develop in faculty unions.

What is inescapably and enduringly important about Noble’s work in this series is its grounding in workplace struggle: it is only unionists like Noble who have mobilized any significant opposition to any dimension of the informational transformation, and who are capable of sustaining the necessary vision articulated by an organized faculty, as at the University of Washington, who insist that education can’t be

reduced to “the downloading of information,” and is an “intersubjective and social process” (Noble 53). Nonetheless, the rhetorical and mistaken portrait of informationalization as the “firing of professors” and a lights-out knowledge factory rather than the substitution of nonfaculty labor for faculty labor needs to be thoroughly confronted and reconsidered by faculty unionists, as well as by other persons situated by the academic-industrial complex.

Why does it matter? For one thing, the idea that academic informationalization can be equated with “the future” and “distance education” leads Noble to suggest in part III of the Digital Diploma series that the battle’s been won, even before it was properly started. For instance: in the aftermath of some 1998 consolidation and retrenchment among online vendors, he writes that the “juggernaut” of instructional technology “appears to have stalled” and that “faculty and students have finally become alert to the administrative agendas and commercial con-games behind this seeming technological revolution.” Would that it were so! Noble comes to this conclusion (November 1998) with his “Part III” just 8 months after issuing a call in part II (March 1998) to defend faculty intellectual property rights in “the coming battle.” Few people seriously engaged in critical information studies would necessarily jump to the conclusion that defense of faculty IP rights can serve as a core strategy for combating informationalism,<sup>8</sup> but the real issue is the sudden swiftness with which Noble’s informatic struggle seems to have opened and closed. If academic informationalization isn’t just another Hundred Days’ War, then what is it? These chronological problems result from the decision to employ a “commodification-of-instruction” heuristic to the exclusion of a heuristic featuring the casualization-of-instruction. By naming technologization as the key measure of informatic instructional delivery, Noble dates instructional transformation as a recent second wave, one which follows the 1980s commodification of research, one which is only happening “now” and which can be averted, even one which by 1998 may already have been averted.

But if casualization and not technologization is understood as the key measure of informatic instruction, we see a far more plausible chronology beginning much earlier—in the 1960s, first observed circa 1968, and continuously unfolding in a process of steady implementation, current commitment, and with no end in sight. Noble’s history of university informatics essentially recapitulates the two-century transition in manufacturing modes of production (from artisanal production to industrialization to post-fordism) but compresses that narrative into just two decades, as if university knowledge work were primarily artisanal before 1980 and primarily industrialized thereafter. This is already problematic: university knowledge work may remain artisanal in certain sectors, but it was also in many other sectors enormously industrialized—especially in the sciences—much earlier. Rather than viewing this transformation as relatively smooth and uniform, it might be better to follow Virno, for example, who sees informationalization not as determining a single “compulsory mode of production” but as supporting a radically uneven terrain of work practice, preserving “myriad distinct” productive modes, serving as an umbrella “under which is represented the entire history of labor” in syn-

chronic form, “as if at a world’s fair” (18–19). (Indeed, this was also Marx’s observation in *Capital*; that many modes of production exist side by side.) Stitching Virno’s understanding together with the “taxonomy of teacher work” offered by Stanley Aronowitz in *The Jobless Future*, we recognize a plausible portrait of our own academy, in which some researchers work in entrepreneurial and corporate modes of production and others produce artisanally, but these pockets of “entrepreneurial,” “industrial,” and “artisanal” practice are inescapably conditioned by the umbrella presence of the contingent labor of graduate students and former graduate students working on a subfaculty basis.

One good way to make sense of the “commodification of teaching” narrative, then, is to approach it as a narrative about the informationalization of academic labor by the sector of academic labor that has been least informationalized. That is: while the tenured faculty (what remains of it) are increasingly becoming what Gary Rhoades terms “managed professionals,” which is to say increasingly subordinated to the corporate values, ease of command, and bottom line of the management desktop, the degree to which this informational transformation of the tenure stream has been accomplished is very limited.<sup>9</sup> The degree to which the tenured now present their labor to management in “the mode of information” presents only a narrow ledge of understanding regarding the fully-informationalized working reality of contingent academic labor. As tenurable faculty labor moves toward increasing subordination to management, lower pay, and so forth—toward “proletarianization”—it is possible that they will come to better understand that the degradation of their own work is systematically related to the super-degradation of the contingent workers teaching in the same classrooms. But insofar as there is now, and will likely remain, a very large gap between the work experience of the flexible and the tenured: we might be pressed to conclude that what remains of “artisanal” faculty practice since 1970 has—at least in part—been preserved by the compliance of the tenured with management’s development of a second tier of labor.

Certainly that sense of faculty complicity drives much of the graduate-employee labor discourse, which is to say, the discourse of the most vocal segment of those subjected to the informatic logic of higher education. Graduate students rightly feel that their mentors, frequently the direct supervisors of their work, owe them something more structurally significant than moth-eaten advice about “how to do well” in the job search. One of the reasons that graduate employees are so vocal is because the transformation of graduate education accomplished by the three-decade conversion of the university to a center of capital accumulation needs to be viewed as a profound form of “employer sabotage”—most graduate employees find that their doctorate does not represent the beginning but instead the end of a long teaching career. As I’ve observed in another venue, the “award” of the doctoral degree increasingly represents a disqualification from teaching for someone who has already been teaching for a decade or more. In the course of re-imagining the graduate student as a source of informationalized labor, the academy has increasingly evacuated the professional-certification component of the doctoral degree (the degree plays a key role in the way professionals maintain a monopoly on professional labor; however, now that work formerly done by persons holding the

degree is done by persons studying for the degree, the degree itself no longer represents entrance into the profession). The consequence of this evacuation is that the old fordist sense of the doctoral recipient as the “product” of graduate education has little meaning—instead, the degree holder must now be understood in systemic terms as the waste product of graduate education—not merely “disposable,” but that which must be disposed of for the constantly-churning system of continuously-replaced student labor to function properly (“Waste Product” 87–89).

In pushing beyond the perspective of the least-informationalized (professorial) sector to the most-informationalized (graduate-employee and adjunct) sector of faculty work, we have multiplied the informatic constituency three- or four-fold. So one way of going on with an analysis of the “information university” is to press at the understanding that it is not workerless, but filled with workers, most of whom will never be so lucky as to have the problems of the tenured. Another way of going on from here might be to use the steady increase of a super-exploited labor pool to press quite hard at the shared fantasy by the tenured faculty and the administration regarding technology as a magical source of accumulation in the information university: as Tessa Morris-Suzuki and others have shown, the general failure of the capitalist fantasy that automated production can create value largely continues to hold under information capitalism (Suzuki 1997a & b, Schiller; Caffentzis). When only a few information capitalists have deployed a particular “labor-saving” technology, the rate of profit rises; but as technological deployment evens out, the rate of profit sharply falls. Because the profit comes from the uneven deployment of technology, and not technology per se, the falling profits associated with increasing technological equilibrium lead even information capitalists back to the fundamental source of value, the exploitation of living labor.

In university terms, the super-exploited informatic labor of its ever-growing contingent workforce (and not “information technology”) is a major source of the value that the university accumulates as capital. In the higher education teaching force, nearly all of this contingent labor has passed through the system of graduate education, which suggests that graduate students and former graduate students must become visible as doubly exploited, first, in the super-exploitation of laboring contingently, but in a second, silent exploitation: insofar as their “education” no longer leads to employment but is itself that employment and is therefore continuously evacuated by increasing quantities of “teacher training” and other duties, so that something that counts as “graduate education” is stolen from them and something else is substituted, something that contributes to the university’s direct accumulation.

So it seems worthwhile at this juncture to insist that the higher-ed commodification critique be more rigorously articulated to the standpoint, circumstances and experience of living labor. In looking at “commodified education” from a materialist point of view, one key point must be that the production of education in the commodity form necessarily implies the creation of both a commodity and surplus value. The predominant line of thought tends toward addressing the characteristics of the education commodity while ignoring the intrinsically related and equally important radical increase in

the university's collection of surplus value, an increase drawn in most institutional circumstances primarily from the labor of women and young people (students, both graduate and undergraduate).<sup>10</sup> Emphasizing the degradation of the "educational and research product" in commodity form can have the effect of obscuring an underlying reality that in some ways can be more directly described as a measurable increase in exploitation.

The point here is not the commodity form and the standpoint of living labor are rival or mutually exclusive starting points for an analysis of education capitalism.<sup>11</sup> The issue is that analyses of the commodity form that address only "the degradation of the education and research product" (i.e., tend toward the adoption of a consumer standpoint) fall short of addressing education capitalism as a system reliant upon the exploitive extraction of labor for the creation of surplus value. If Paul Smith is right that "the commodity is still the hieroglyph," and remains "a privileged place" for analysis, I think it is equally worth emphasizing, with Smith himself, and ultimately with David Noble as well: "if this commodity could speak, part of what it would proffer is a memory of the process of the extraction of labor and the production of surplus value" (Smith 57). Which is to say that our motivation for opposing the commodification of education can never be only the degree to which commodified education is "better or worse" than noncommodified education, but the inextricably associated question, of the degree to which commodification represents the increased exploitation of living labor.

## **THE NEW STUDENT MOVEMENTS, MENTAL LABOR AND THE CLASS STRUGGLE**

And trust me, it's a lot more fun reading a book about youth in the workplace than actually experiencing it.

—Kate Giammarise, sophomore, University of Pittsburgh

One way of getting into the undergraduate experience is to ask how teaching in the mode of information affects their learning: i.e., if it sucks to be a disposable teacher, what does it mean to be taught by this "sayonara faculty," the soon-to-be-disposed-of cheap teachers laboring in the informatic mode? After all, this is a system that takes its most experienced teachers, graduate students who have taught eight years or more, and fires them, replacing them with brand new "teachers" who have no experience at all. The experienced teachers then go to work "in industry," while every year thousands of inexperienced first-year graduate students walk into freshman classrooms with nervous grins on their faces. We could begin by asking whether it is a form of "employer sabotage" when by far the majority of college teaching is done by persons who will never hold a Ph.D. or do not have an active research agenda, and many of whose scholarly

ambitions may have terminated in a sense of frustration, failure or disappointment. Or we might try to get at the structure of feeling sustaining these college teachers and ask what convictions and behaviors are being transmitted to undergraduates in their first two years by persons whose experience in graduate school has taught them to love life-long learning more than wages, who do not expect their employer to provide benefits, who are grateful to work at the university, who do not generally have or expect any meaningful control over the workplace, who may feel that they “deserve” their fate at \$16,000/year and so forth. It is not at all uncommon for a person who believes herself to have “failed on the academic job market” to base her pedagogy on “what you need to do to get a job.”

But perhaps the undergraduate student’s experience is not only tied to the experience of graduate students and former graduate students along this essentializing binary of “teacher and student”—can’t we also get at the ways that the undergraduate experience is very much like the graduate experience, on a vector of likeness, “student and student”? After all, the “young people” that teach contingently (21–38; by the early 1990s, the NCES reports that the average age of the recipient of an academic first full-time job was 39) are in most cases near to the age of the young people being taught by them (the average age of the U.S. college student is 26.6 years: nearly half of all undergraduates are over 25). The undergraduate’s always-lengthening “time in school” is increasingly a term of service as a worker, commonly a flex worker: the majority of college students work while in school; more than half work a full-time equivalent (35 hours or more), often however without the benefits associated with full-time employment. Many work directly for the university; in many other cases the university “assists private employers” in finding student labor, creating corporate-university partnerships founded on uniting “scholarships” with the university’s assistance in finding students to work, as at my institution, 20 hours per week in five four-hour shifts beginning at midnight. In contexts like these, the university’s role regarding the employment prospects of youth is no longer merely that of a space of socially supported leisure consequent upon the “warehousing” of “surplus labor” for future full-time employment.

Instead, the university’s role is now to accumulate value extracted from student labor in several ways: as direct employer, as purveyor of the temp services of enrolled students to nearby corporations, and—in no particular hurry—also, eventually, to provide some degreeholding graduates trained and socialized to deliver their labor in the mode of information. Once we recognize that the categories of “student” and “worker” increasingly overlap, we start to have a way to add to our already-developed understanding of education as an ideological apparatus vis-à-vis students (i.e. what Bowles & Gintis term “the people production process”[53]). In the context of massive student employment, we cannot restrict analysis to the ideological questions of curriculum and the content of knowledge production (though these questions are vital) or even the direct repression of teacher labor in the industrialization of knowledge production. Once we feature the labor of the student centrally, it is possible to make different sorts of inquiries and have different hypotheses.

For instance: why shouldn't we expect to find the organic intellectuals of academic informationalism in the student body (and not among the professoriate), for the simple reason that it is really the students, graduate and undergraduate, who labor informationally? While so many of the professoriate are willing to see themselves as "information vendors," and use their unions to "defend 'their' intellectual property rights," it is not clear that this position makes them intellectuals organic to information work. (To the contrary, it seems that the professoriate has tended more toward providing intellectuals organic to information capitalism—the defense of intellectual "property rights" by tenured faculty is more like the artisan-capitalist Duncan Phyfe than Paolo Freire.)

We might in this connection devote more consideration to questions raised by the emergence of the student anti-sweatshop movement: it is, among other things, obviously a sabotage of the corporate university's regime of accumulation. And rather than see this phenomenon as evidence of professorial intellectual leadership ("at last, the young people are listening to us again") or the resurgence of an earlier movement culture, what would happen if we saw this intellectual activity as emerging from the increasingly contingent material experience of the North American "youth" formation? And if this intellectual activity is indeed at least partially symptomatic, perhaps we can ask this question: is not the focus on the sweatshop an indicator of a student movement that also wants to be a labor movement?

Rather than forge an alliance "between students and labor," what would a movement based in the self-consciousness of students as labor look like? If the anti-sweatshop movement were to recognize its symptom as such, what would it do next? It is already a subjectivity articulated to proletarian struggle elsewhere on the planet, albeit mediated by a notion that the struggle is "for" others and "really" over there: how much more of its potential might the anti-sweatshop movement realize if it incorporated an activism against the flexible dominion of the university managers more locally?

A movement based in the recognition that under information capitalism the term "student" names a category of worker, returns to compelling questions such as: what is education for? Or: what is the difference between knowing and acquiring information?

We might even ask, what would an information socialism look like, especially when we understand that the dissemination of information technology and "access to higher education" will not automatically produce it? Over the past 30 years, the expansion of the higher education franchise has incorporated a steadily larger segment of the U.S. population, but evidently with the overall effect of increasing economic inequalities: NCES data strongly suggests that the increased "access" to education between 1970 and the present has widened the earnings gap between the more and less educated, not by increasing the earnings of the educated (which have declined), but by slashing the incomes of the less educated even more (2000: Table 23-1).<sup>12</sup> One way, therefore, of reading the incorporation of larger class fractions into "higher education" is to suggest that it has produced new economic penalties for staying out of the education regime or that the place of the university in the informational transformation is substantial

enough to help economically organize the lives even of that minority who have no direct connection to it.<sup>13</sup>

A student-labor movement might provide a standpoint from which to explode the fantasies that emanate from attempting to resolve the contradictions of capitalism with providing “access to capital.” Regardless of whether information is construed as economic or cultural capital, it seems clear that providing student laborers with “access to information capital” is no substitute for actual education: as Henry Adams wrote, “Nothing in education is so astonishing as the amount of ignorance it accumulates in the form of inert facts.” Obviously, anything that counts as “actual education” will involve devoting labor-time to study, to “leisure activities” such as playing sports and listening to concertos, and not submitting to the in-formatting of vocational instruction. But information capitalism’s hostility to the devotion of student labor-time to study and to “leisure” is not merely a consumer ripoff (information download as ersatz education) but the class struggle itself, an organized “employer sabotage” of worker consciousness, a programmatic obsolescence by the credit hour, substituting the lifelong drudgery of perpetual training for leisure, enjoyment, and free mental activity. The struggle over higher education is not a struggle over the “distribution of cultural capital,” but a struggle to contain, divide, and divert the subject of social transformation.

If we are in a moment where information is the ideal commodity, characterized by a form of the work process in which “the student” is the most characteristic worker, should we not expect the demand of the student to emerge organically as the foundational demand of labor at this time? If we accepted the not-capitalism specific to “the student” as our own not-capitalism, a more general and generalizable not-capitalism, wouldn’t it look something like a refusal to work in the informatic mode? This would naturally be a variant on the demands of the Italian autonomy, rather than working without income, to have an income without work. And in making such a demand, are we not making the demand of the student, simply to be allowed to be a student? To have years to study, to do mental labor outside of the regime of accumulation? And in opposing a lifetime of study, sport, enjoyment, and leisure to the regime of “lifelong training,” we might find the authentic demand of the flexible: under a socialist informatics, laboring in the mode of information will invite persons to that joy in their muscular and synaptic efforts that capital commands them to ape.

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## NOTES

<sup>1</sup>Not all readers will be aware that the term "EMO" is already in use on Wall Street, describing for-profit education vendors such as Sylvan and Phoenix. This usage does not discriminate between higher, secondary, and vocational education, so long as the organizational structure enables investors to collect profits from student fees, licensing, teacher work, and so forth. In this essay I prefer the term Randy Martin's term "managed university," which characterizes the subordination of higher education more generally to an administrative class aggressively pursuing the "corporate ideal" (Barrow). The non-profit university cannot directly transfer wealth to investors in the form of profit, but the "education organization" managed on the corporate ideal can and does accumulate wealth in the form of buildings, grounds, books, endowments, and the like. This is to say that Wall Street's designation EMO describes an education organization managed for profit; the "managed university" describes higher education institutions managed for accumulation more generally. Many readers may be willing to grant that distinguishing between profit-taking and accumulation is in this context a distinction that makes very little difference, as the president of the University of Florida indicated when he confessed, "We have taken the great leap forward and said: 'Let's pretend we're a corporation.'" (Steck & Zweig 297).

<sup>2</sup>See for example the "1999 National Student Satisfaction Report," conducted by Noel-Levitz, a higher education consulting firm and subsidiary of the USA Group, the major education lender (which in 2000 merged with Sallie Mae). The report claims to reflect survey data from over half a million students at nearly 900 institutions. The survey is evidently based on the firm's trademarked "Student Satisfaction Inventory," which is primarily used by client educators to "assess client [student] satisfaction," and is not offered here as an authentic record of the student voice. Nonetheless it is clearly an instrument that serves as the authentic record of student voice or "demand" for at least some university administrators, who have been investing heavily in the "parking, food and comfortable living quarters" that Noel-Levitz claims are the top issues for students, while continuing to divert funding from instructional labor, an area in which Noel-Levitz reports continuing high levels of "client satisfaction."

<sup>3</sup>Throughout the body of the essay I am quoting from the widely-available online versions of Noble's essays (I use the authoritative versions housed on the UCSD server; see citations below), on the theory

that these versions will continue to be more widely circulated than the short hardbound volume from *Monthly Review* press. Nonetheless, some readers will find citations to the monograph helpful. The claims regarding the “second phase” of education commodification are found on pp 26–27, and elaborated in the introduction (x), and page 37: “For most of the last two decades this transformation has centered upon the research function of the universities. But it has now [!] shifted to the instructional function.” In his extremely persuasive discussion of the relationship between correspondence schools at the turn of the last century and distance education, Noble associates the correspondence movement with the emergence of a “casualized workforce of ‘readers’ who worked part-time and were paid on a piece-work basis per lesson or exam (roughly twenty cents per lesson in the 1920s). Many firms preferred ‘sub-professional’ personnel, particularly untrained older women, for routine grading. These people often worked under sweatshop conditions, having to deliver a high volume of lessons in order to make a living, and were unable therefore to manage more than a perfunctory pedagogical performance.” (9) My quarrel is obviously not with Noble’s historical observation here, or with his claim that more distance education will mean more deskilling of this kind, but with his exclusive association of commodification and deskilling with technology. The university already has an established preference for a gendered and ‘sub-professional’ work force apart from distance education or any potential future expansion of it. The massive casualized work force already established in the managed university seems to me to call for additional analysis in the vein of Harry Braverman’s work (in which office technology is seen as called forth to serve already-existing transformations in the management of office labor). That is: must we not see the technologization represented by online learning as at least partially the result of a rationalized (“scientifically managed”), casualized and deskilled work force, rather than its “cause”?

<sup>4</sup>It’s worth underscoring that my divergence from Noble is overall nonetheless primarily one of emphasis: he focuses on distance education, technologization, and the tenure stream, and I focus on casualization and the work of students and other contingent labor. Far more important than any differences, however, is the wide shared ground represented by the fact that we both fundamentally approach academic work with a labor theory of value, by contrast to the predominant vision aptly described by Dan Schiller as an “information exceptionalism” that attempts to substitute a “knowledge theory of value” (Schiller 1997:105–106). As indicated in detail above, I wish to associate myself firmly with his analysis of education commodification more generally and with his indispensable ramification of that analysis for the traditional faculty.

<sup>5</sup>This is in part why Terranova argues for getting beyond the debates about who constitutes a “knowledge class” and “concentrating instead on ‘labor’”(41). In this context “labor” refers to Lazzarato’s notion of “immaterial labor,” those activities of the eyes, hands, speech organs and synapses of a “mass intellectuality”—channel-changing, verbal invention, mouse-clicking, fandom, opinion-formation and opinion-sharing, etc.—that are “not normally recognized” as labor, but which can be described as “knowledge work” yet one divorced from “the concept of creativity as an expression of ‘individuality’ or as the patrimony of the ‘superior’ classes, and which are instead collectively performed by a creative social subjectivity (Lazzarato 133–134; 145–146). Terranova’s understanding that the production of Internet culture absorbs “massive amounts” of such labor, only some of which is “hypercompensated by the capricious logic of venture capitalism” (48), can be partially mapped onto our understanding of higher education and the labor-power it composes. For one thing, it is quite clear that much of the “free labor” that goes into creating higher education culture, such as the work of “playing” basketball, cheerleading, blowing a horn in the marching band, attending the game—even checking the box scores—can be harvested by university capital as surplus value: the university valorizes the uncompensated labor of the editor of the student newspaper and its “interns” and “service learners,” together with the “work-study” efforts of its student dining-hall workers, just as easily as it valorizes the radically undercompensated labor of the faculty and graduate students editing a scholarly journal, or its janitors and librarians. For another: it seems equally evident that any movement likely to transform academic capitalism at the level of structure will have to unfold in the consciousness and muscles of an insurrectionary mass intellectuality of all of the fractions performing this un- and under-compensated labor, and can hardly flow from one segment alone, or one segment “leading” another.

<sup>6</sup>See Andrew Ross's description of the way that universities, digital industry and other employers of "mental labor" have succeeded in interpellating intellectual workers more generally with the "bohemian" ideology previously reserved for artistic occupations: large new sectors of intellectual labor have proved willing to accept not merely the exploitation of wage slavery but the super-exploitation of the artist, in part because the characteristics of casual employment (long and irregular hours, debt subsidy, moonlighting, the substitution of reputation for a wage, casual workplace ethos, etc.) can be so easily associated with the popular understanding of normative rewards for "creative" endeavor.

<sup>7</sup>As Barrow among many others observes, higher education's continuously enlarging contributions to personnel "training and the provision of a scientific-technical infrastructure" have historically been the two areas in which the "costs of private production" under advanced capitalism have been most successfully displaced onto society (8).

<sup>8</sup>This is not to suggest that there aren't circumstances where the notion of intellectual property rights, as in the struggle to resist the exploitation of indigenous knowledges, can't be mobilized with great tactical effectiveness (Coombs).

<sup>9</sup>Indeed, despite efforts to reverse the Yeshiva decision, a recent case before the NLRB involving a small Catholic college in Connecticut demonstrates the degree to which the faculty function can be read before the law not so much as that of "managed professionals" as that of "professional managers" (who can be denied the right to bargain collectively).

<sup>10</sup>For an alternate view in the materialist tradition (of education as a "fictitious commodity"), see Noble, 3.

<sup>11</sup>Enrique Dussel continues to argue, from a standpoint including textual scholarship regarding what he views as the movement of Marx's intention in the project of *Capital*, that living labor represents a more valid "starting point" for the critique of capitalism than analysis of the commodity form. Certainly commodification critique has in many instances been subject to incorporation, and nowhere more so than in the popular culture of the academy's liberal elite. Nonetheless, rather than attempting to describe one or the other as the "logical starting point," the position offered here is that critique should make more of an effort to sketch the relation between what Mosely, by analogy to Banaji, suggests is something more like a "double starting point" (Mosely 7).

<sup>12</sup>The data on this question varies by gender: in all four groupings of annual earnings (edu. 9–11, high school, some college, b.a. or more), male incomes have dropped and female earnings have risen. The female earnings growth varies little by level of education, and is modest in relation to the gendered earnings gap, average female income at all education levels remaining well below average male earnings (evidently at least in partial relation to the exploitive feminization of occupation categories, such as nursing and teaching). In constant 1999 dollars: for women educated through grades 9–11, the 1970 earnings were 8640 and the 1998 earnings were (10638): high school, 14681 (15356); some college 17570 (20074); b.a. or higher 26772 (30774). By contrast, the decline in male earnings is substantial in all categories except b.a. or more, where it is only about ten percent: 9–11, 29377 (17976); high school, 35553 (25864); some college, 38794 (30124); b.a. or higher, 44,031 (40163). Of course there are many other factors: especially the changing composition of the workforce, class-stratified patterns of dual-income households, and the dramatic change in the relative size of the groups represented by various "education levels." Additionally, the years devoted to "some college" and "b.a. or higher" have increased, and the very nature of "higher education" has been transformed to involve very different activities between 1970 and 1998. Above all, this data needs to be read in connection with the political work of feminism. Nonetheless, all caveats considered: one of the more dramatic movements of the data is to suggest a growing economic penalty for remaining outside of the work regime represented by "higher education."

<sup>13</sup>Some of the observations in this and a preceding paragraph regarding the work experience of North American "youth" were previously framed in a book chapter, "Cultural Capitalism and the James Formation," in Susan Griffin, ed. *Henry James Goes to the Movies* (Lexington: U Kentucky P, 2001).

# Rehabilitation for Milken's Junk Habit<sup>1</sup>

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*Kenneth J. Saltman*

The May 10, 1999 issue of *Business Week* magazine features a picture of convicted felon Michael Milken on its cover. In the picture Milken sits cross-legged in a meditation pose smiling with his hands outstretched. Instead of his fingers joining thumb and fourth finger to complete the Buddhistic pose, pieces of fruit fly from his hands. Milken is juggling fruit. His lap is filled with vegetables – broccoli, peppers, squash, tomatoes, artichokes. Carrots overflow one pocket and spinach leaves the other pocket of a blue work shirt, which looks as if he might have snuck it out of the minimum security Federal Penitentiary where he served two years on a ten-year sentence for ninety-eight counts of fraud. The headline reads, “The Reincarnation of Mike Milken: a close-up look at his life, his education business, and his quest to cure cancer.” *Business Week* happens to be owned by McGraw Hill, the largest educational publisher and one of the biggest investors in precisely the kinds of for-profit education businesses that Milken is buying up.

In a March 1998 article in *Business Week* regular *Wall Street Journal* financial reporter Craig Roberts argues that Michael Milken has done more to help mankind than Mother Theresa.<sup>2</sup>

*Business Week* and the *Wall Street Journal* are not the only mainstream publications singing the praises of Michael. The *New York Times* writes of “restoring the junk bond king” while the *Independent of London* calls Milken’s entry into education and medical research a “resurrection.” The *Economist* calls Milken “The Comeback King.” *Time*, *Newsweek*, *USA Today* and a bevy of mainstream publications join in a chorus of praise for a man that federal prosecutors and the Securities and Exchange Commission allege returned to lawbreaking “the moment he stepped out of prison.”

In the 1980s Michael Milken was sent to prison for his illicit financial dealings – fraud and insider trading. However, even his legal activities in the junk bond market were destructive to companies, to retirees, and to the general public. He was a major factor in the Savings and Loan collapse that cost the public billions. He invented the junk bond market and promoted its use in hostile corporate takeovers that destroyed busi-

nesses, labor unions, and job security while enriching a tiny corporate elite. He promoted greed as a public virtue and still claims that his destructive profit-seeking behavior is the essence of democracy. Since his early release from prison, Milken has been building the first education conglomerate, Knowledge Universe, which is aimed at transforming public education into an investment opportunity for the wealthy by privatizing public schools, making kids into a captive audience for marketers, and redefining education as a corporate resource rather than a public good vital to the promotion of a democratic society.

Part of what is so disturbing about Milken's predatory move into education is that the popular press has hailed it as redemption for a man with a tainted history. In reality, Milken's predatory financial activities, which bilked the public of billions while making him a billionaire, are continuing in education.

In his defense of privatization, Milken is suggesting that he is helping children, giving them opportunities within a corporate future where the competition will make it increasingly difficult for them to participate in the economy:

Education must address individual needs. Rapid corporate evolution and frequent restructuring – including downsizing, rightsizing and outsourcing – mean an employee can no longer rely upon a “job for life.” We believe that those who have the ability to learn and apply new skills are most likely to achieve career success and personal fulfillment.

—Milken's “Knowledge Universe Vision Statement”

Corporate culture claims to solve the problems of schooling by remaking the school in the image of the corporation. What Milken is not saying is that he himself is actively sponsoring and building that cutthroat future with no job security, low pay, and exploitative work conditions. What is in fact a hostile takeover of education as a vital public good is being sold to the public as philanthropy.

## **EDUCATION, INC.**

Education must address corporate needs. Companies face a global economy with increased competition, decreasing product life cycles, more demanding customers and constant technological innovation. In this environment, employees must continuously be retrained to meet the evolving demands of the global marketplace.

—Knowledge Universe Vision Statement

Michael Milken's attack on the public sphere needs to be understood as a part of the broader movement for privatization taking place in all aspects of society. Not only schools but prisons, legal defense, public medical facilities, parks, social security, all are subject to the call to privatize.

Incontrovertibly, the corporate media trust is selling the public on privatization through news and entertainment which portrays privatization as the only option, which equates capitalism with democracy and which actively depoliticizes citizens. Corporate media is so concentrated that a group of five companies control almost all of American film and television: Time Warner, Viacom CBS, News Corp, Bertelsman/Westinghouse, and Disney ABC. Book and magazine publishing is even more concentrated and intersects with the film and television monopoly. Michael Milken directly contributed to the rise of the media monopoly by pioneering the use of the junk bond for corporate media mergers.

The media monopoly relates directly to the rise of the educational conglomerates in that both share the ability to monopolize knowledge production. Private monopolies on the production of knowledge and culture threaten the possibility of democracy because they frame issues in the corporate interest, block public access to media production and content control, eliminate curriculum or content which challenges structural inequalities, and fail to distinguish public from private interest.

The political and pedagogical implications of this struggle over the control of knowledge and language are readily apparent in corporatization of school curricula. Shell Oil's freely distributed video curriculum on the environment concentrates heavily on the virtues of the internal combustion engine, "while offering students pearls of wisdom like, 'You can't get to nature without gasoline or cars.'"<sup>3</sup> In this case Shell Oil rewrites environmentalism as its diametric opposite – the plunder, exploitation, and consumption of nature.

But what Milken has in store for education is more than the transformation of school kids into a captive audience for corporate commercials. Knowledge Universe and the other "lifelong learning" companies seek to reinvent the school on the model of the corporation. Today the wild drive for "computer literacy" for teachers and students, the emphasis on instructional technology, and the general faith in technology as an inherently educative and liberating force belies another yet more disturbing faith – a (radically misguided) faith in the corporation to provide employment, fair work conditions, security, and a general state of bounty for the student, for the nation, and for the world.

Historically, corporations have proven their lack of concern with the welfare of the world's citizenry from the slave trade, to colonization, to the exploitation of industrial labor and child labor, to the gutting of the public sphere through corporate welfare, to the cultural elevation of greed and selfishness, and restoration of racism, and sexism as virtues, to the carceral and military industrial complexes, to the destruction of whole communities with pollution and infrastructural undermining. Increasingly the public is becoming enslaved to the corporate interest in nearly every sphere from politics to culture to law.

KU's Teacher's Universe business exemplifies the transformation of the school by corporate culture:

Using PowerPoint presentation software, Lee Whitton puts the finishing touches on a computer "slide show" she has created. The topic: Why teachers at Flanagan (Ill.) Elementary School, where Ms. Whitton is the principal, should take the same technology-training course that she is completing. "I've created one slide show to persuade my school board we need it, and another to convince the teachers," Ms. Whitton says. Creating sharp-looking documents and spreadsheets is among the tasks she mastered in a five-day training institute run by Teacher Universe, a new company that for the time being is focused on helping teachers integrate technology into the classroom . . . "Administrators have to be as knowledgeable as teachers," says the principal, whose 550-student district in central Illinois paid her travel expenses, plus the \$450 tuition, for the institute here.<sup>4</sup>

Clearly, the curriculum at Teacher's Universe involves more than the tools involved in transforming any classroom in the image of a corporate boardroom. Administrators learn to use the new tools to market the technology training courses to other administrators. Some glaring questions emerge from this such as: how in the world does this benefit education? We also need to ask who will receive this corporate culture and who will not (we know the answer to this because it will be distributed as other educational resources are currently – based on wealth).

The transformation of school through corporate culture is about more than an emphasis on style over substance. Corporate culture in schools makes politics less possible by way of anaesthetized technicization. When the problems of public schooling appear as technical difficulties rather than structural manifestations of deeper flaws, solutions are sought in the corporate sector – a sector largely responsible for causing those social problems in the first place by fostering political exclusion and creating inequalities of wealth. Yet, KU's Teacher's Universe does not intend to simply sell computer learning apparatus. They will sell knowledge too:

Teacher Universe instructor Lloyd Spruill focuses on integrating Windows applications into the classroom. (Teacher Universe offers training on a variety of operating systems and applications.) Creating a PowerPoint slide show about the Brazilian rain forest can lead students to use economics, math, language arts, geography, and other subjects, Ms. Spruill says. "If we isolate computer skills, that's like having a pen teacher, or having a pen lab in the school," said Ms. Spruill, who was a school district technology director in Bertie County, N.C., before joining the training firm that preceded Teacher Universe.<sup>5</sup>

And Michael Milken is ready to link his curriculum to his learning technologies through Teacher's Universe, KU Interactive Studio, and its subsidiary MindQ Publishing.

What can educators seeking learning materials through Teacher's Universe's helpful links expect to find in a lesson on say, Brazil? Mostly issues framed in terms of Western tourism, though some links do consider the importance of ecology. However, none of the links discuss the reason that the rain forest is being destroyed – corporate profit. Slash and burn methods turn rainforest into grazing land for cows that will become McDonald's hamburgers. Whoops! Minor omission in the curriculum. The politics links on Teacher's Universe are predictably Right-leaning, with the Left represented by a conspiracy theory link. The only military-related link celebrates the virtues of military spending and glorifies military hardware with graphic images. It does not mention the fact that the world's only superpower continues to invent new enemies and uses for the military to spend record amounts on defense because corporate profit is at stake in the distribution of public money to high tech firms. It omits minor contradictions such as the massive military expenditure involved in attacking Yugoslavia for "humanitarian interests" (bombs for peace), while at the same time U.S.-funded forces were committing genocide in East Timor because "we have economic interests there." This politics link also fails to mention that Milken's own Milken Family Institute, through the Jerusalem Center for Public Policy, funds research on militarized policing methods of oppressed Palestinians in Israel, lobbies for the privatization of Israel's public schools, and funded the slander of progressive intellectual and Palestinian human-rights spokesperson Edward Said in this country.<sup>6</sup>

## **JUNK KING EDUCATION: MY OWN LITTLE REVOLUTION**

But old habits die hard . . . his penchant for secrecy surrounds Knowledge Universe. The firm's ownership structure resembles a set of Russian nesting dolls: Each company opens up to reveal yet another, until at the core one finds the Milken brothers and Ellison. And while the trio have recruited such high-tech players as Larry Geisel, a former Netscape VP who's now Knowledge Universe's CTO, they've also installed long-time lieutenants in other positions, according to SEC records.<sup>7</sup>

According to Michael Milken himself, his education company is a direct continuation of his financial activities. They are both, he argues, about democratization. Milken has repeated this post-jail narrative in multiple outlets—through the Milken Family Foundation, the Milken Institute, and in press interviews. The story goes like this: Milken says he lived an idyllic life in Southern California until the Watts Riots of 1965. After the riots Milken drove to Watts, where his father, an accountant, had clients. Milken claims to have spoken with a man who had set fire to his own "workplace."

I'm out of this 'Happy Days' family in the San Fernando Valley, and I couldn't understand why people were burning buildings that they were living in or might have worked

in . . . He had no savings and now he had no job. I asked him why and he told me that he wasn't a part of the system. He wasn't living the American Dream.<sup>8</sup>

The story continues that upon returning to Berkeley, where Milken was enrolled as a math major, he changed his major to business with "the vague idea of changing the financial system" to provide investment opportunities for minorities and those excluded from the economic system. If we are to believe Michael Milken, his invention of the junk bond was geared towards economic justice by democratizing access to investments. "Eventually, he came to the conclusion that the system could be opened to more people by providing credit based on a company's potential instead of its past history. Junk bonds became the vehicle."<sup>9</sup> Says Milken, "I viewed that as an opportunity. I viewed that as my own little revolution."<sup>10</sup> According to Milken his junk bond activities of the eighties successfully "democratized capital." What examples does Milken give to support his version of the democratization of capital for the poor, the excluded, and the underclass? A poor marginalized company called MCI couldn't compete against AT&T. But the junk bond helped finance its growth to current oligopolistic proportions. The only other example I have been able to locate of the junk bond's great egalitarian power is his example of its use in financing media giant Time Warner's purchase of media giant Turner Broadcasting.

If only those other Berkeley radicals had gone to business school, economic injustice and racism could have been conquered.<sup>11</sup> According to Milken, who refers to himself as a social scientist, these injustices have been conquered. Despite the realities of a steadily increasing wage gap, growing inequalities in the concentration of wealth, the racial and gendered nature of economic inequality, systematic police brutality and white supremacist attacks against non-whites, and immigrants, despite Rodney King, the L.A. uprising, despite the destructive corporatization of the health care industry, the denial of AIDS medicine to the poor, rising rates of child poverty and homelessness Michael Milken claims to have conquered economic injustice in the early 1980's through the "democratization of capital." "I believe that mission succeeded by the early 1980s."<sup>12</sup>

In reality the junk bond didn't even turn out to be a good investment for the rich (Milken himself got out of investing in them early on), it didn't really ever finance small business expansion, individual entrepreneurship, or allow workers control and ownership of their workplaces. The real issue here is not merely the false claim that the junk bond "created jobs." Rather the issue is that Milken's definition of democratic economics translates to corporations providing jobs in a market economy. In other words, Milken defines democracy by the benevolence of those few people in control of markets, people such as himself. In this case, the profit-seeking behavior of the corporate sector is democracy. If this profit-seeking by the rich results in the creation of some jobs then that is proof of the democratizing potential of profit-seeking behavior and a system designed around maximizing profit for the rich. Milken's vision of democracy

excludes citizens not only from control of their own labor and control over their workplaces but also from being involved in decision-making about the kinds of work they will have available in the future. Furthermore, this way of thinking defines democratic action as competition against other citizens for scarce goods and services and defines democratic action as the pursuit of individual interest though such behaviors as consuming private educational services rather than defining democratic action as the pursuit of the public good or common good through the individual and collective behaviors of public service, activism, or civic participation.

Milken's attacks on the public sphere in his educational endeavors are extensive and potentially far more destructive than his anti-public actions in the financial realm. Milken aims to privatize public education and make money from it. He is already doing this with KU's Nobel Learning Communities, Inc. As Justin Martin writes in *Fortune* magazine, "private schools represent only a sliver of the K-12 education market. Public schools are the big quarry." Though neither KU's website nor Nobel's website reveals it, Knowledge Universe owns a "significant ownership position" in what is the largest private school system in the U.S. which spans 13 states and includes 140 schools. Nobel claims they are "currently pursuing plans for further nationwide expansion."

According to the company, "Nobel Learning Communities' programs are targeted towards the working families of America." Why do America's working families need private schools? "Analysts believe the opportunity to build an education company into a significant and profitable business is huge and is fueled by the Nation's need to reform a system that is getting failing grades." Are the "Nation's" schools really in need of reform or are only some of the nation's citizens' schools in need of reform? Certainly Nobel is not targetting the rarely white suburban schools populated by the children of the professional class. Nobel schools could certainly not compete with the public schools of professional elites in such places as Lower Montgomery, Pennsylvania outside of Philadelphia, Fairfield County, Connecticut and Westchester County, New York outside of New York City or Montgomery County Maryland outside of D.C. So Nobel's response to schools getting failing grades is, in fact, a response to a highly unequal system of public allocation of education as a public good. The remedy for such unequal allocation should be the redistribution of educational resources. This redistribution needs to be tied to a broader social redistribution of decision-making about how social resources are allocated.

Fixing the public schools in a place like Camden, NJ with an infusion of public investment needs to be tied to the revitalization of that city's infrastructure. The reason the Camden schools are radically underfunded has to do with the fact that city's tax-base has been dismantled by the flight of business and residences. Where did business go? To nearby wealthy white Cherry Hill and overseas. The loss of local jobs and tax revenue in Camden resulting from corporate flight left an unemployed population with a gutted public sector. Without fixing the economic conditions that result in unemployment, poverty, despair, the resort to drugs and alcohol for consolation and income,

and violence, fixing the Camden schools is an empty gesture. The fact is, the corporate sector is complicit in destroying communities in urban areas and now wants to come back and prey on these communities by making them rely on private education. Public schools do need public investment and support so that they can be sites from which citizens can struggle for economic and cultural empowerment and broader social transformation. The public investment in public schools should be based in a broader democratic public transformation, not on the ephemeral promise of competing for scarce and low-paying jobs. Such rejuvenation should be premised on the development of a critical and compassionate citizenry, the development of a vision for the future in which citizens decide the kind of work they do and the subjugation of the corporate sector for the public good, rather than the subjugation of citizens for corporate profit.

### MILKEN FAMILY VALUES

The kindness in my father's eyes took nothing away from his serious message. "Never forget," he said sternly, "Businesses are built on trust, and trust starts with the balance sheet."

—Michael Milken

One of Nobel's enticements to investors is that, "There are also more working mothers with children than any other period in history." Nobel sells pre-school services to working parents. Aside from Nobel's assumption that women are natural caregivers to children, the company recognizes that there is loot to be scored by taking advantage of worsened economic conditions for working class citizens. Due to continually decreasing real wages for working class families, (in an "economic boom") families of four now require two earners as opposed to one. While the economic boom of the late nineties has benefited corporate CEOs and the ruling class it has not materialized for the majority of the population. So Nobel as well as Knowledge Universe's other child-care business' benefit financially from worsened economic conditions for working class and largely non-white populations. What must be understood is the extent to which the corporate sector has been instrumental in making families poorer and hence dependent upon the consumption of the corporate child-care industry.

Knowledge Universe owns Children's Discovery Centers of America, for which it paid \$80 million.

As with corporate training, early-childhood services make good sense for KU. These days, 80% of families are either dual income or headed by a single parent. But running an on-site day-care center is costly; thus, many corporations outsource this service as well. (Martin, 1998: 197–200)

Wall Street considers the “early-childhood” market to be a \$30 billion opportunity for corporations. The obvious labor issue here involves the ethical question of whether the victims of worsened economic constraints on working class and middle class citizens should be subject to rely on corporate provision of child-care services. Child-care services should be a universal public good which allows parents the opportunity to participate in the economy. In Milken’s world, equal participation in the economy by men and women depends upon the consumption of his private, for-profit childcare services.

Leverage buyout masters, junk bond kings, and finance houses are turning to kid-die care in droves. Recent consolidations include: KUs Nobel and Children’s Discovery Centers, Kohlberg, Kravis, & Roberts’ KinderCare Learning Centers (the nation’s biggest chain), Chase Capital Partners’ La Petite Academy (number two), Lazard Capital Partners’ \$16 million equity stake in ChildrenFirst, Inc.

The predatory move into child-care does not stem from altruism. Rather, the corporations are responding to three primary sources of new child-care spending. 1) President Clinton included \$600 million in childcare in his federal budget proposal last February. 2) Massive tax credits to corporations have been proposed in Congress “toward the cost of setting up, operating or subsidizing on-site child care for their employees.” And 3) the big haul is “\$22 billion in federal money over six years to help subsidize child care for welfare recipients who return to work.” (Cummings, 1999: D1) Even as Congress has allocated \$4.5 billion for childcare to be spread over five years, children eligible for childcare vouchers in states like Mississippi are not receiving them, and yet the state’s budget for childcare remains in the coffers – approximately \$25 million in federal allowances and \$17 in state allowances (Houppert, 1999: 15). The difficulties of administering and distributing welfare benefits at the state level – where these functions are now controlled, due to block grant legislation – creates a greater opening for privatization and the move of corporations into the industry to pick up the slack.

The 1996 Republican-led and bipartisan-enacted welfare dismantling was an attack on the idea of a social safety net for those citizens in most need. In this sense, the dismantling of welfare was a part of what Stanley Aronowitz has identified as the gutting of the “compassionate functions of the state.” However, it was also fundamentally a redistribution of public resources to the private sector in that direct government provision and non-profit provision largely shifted to for-profit provision. While the people who lost in this attack on social services were the poorest, least enfranchised and historically most victimized segments of the population forced to “sink or swim,” the winners were big corporations such as military contracting giant Lockheed-Martin which had lined up before the law even passed to be rewarded when it did pass with 20 contracts in four states. As William P. Ryan points out in the Harvard Business Review, this privatization has resulted in a radically destructive shift in the culture and economics of social service. Huge capital means for-profits can take over projects quicker and also quit projects when the bottom line doesn’t pan out. They do the projects that promise to pay the most. They have a short-term outlook often at odds with individuals or community interests. They force non-profits to compete and operate based on

profit and price-competition instead of based in a mission of helping people. They remove profit from projects rather than reinvesting them.

What is particularly disturbing is that Knowledge Universe and the other “lifelong learning” companies have a financial interest in the government not providing fundamental social services including childcare, education, welfare, and worker training. As Alex Molnar points out, the endless attacks on the quality of public education from the corporate sector come despite the fact that U.S. corporations spend less on worker training than any other industrialized country. Obviously the “quality” issue that corporate CEOs such as Louis Gerstner of IBM hurl at the public schools do not concern the schools from which IBM will draw employees. Those schools, heavily funded, largely white schools in suburbs are providing IBM with well-educated members of the professional class. So the “failing” schools are not the ones from which IBM intends to benefit by hiring their graduates. However, IBM can certainly benefit from convincing the government that IBM can allow urban schools and their students to compete with wealthy white suburban schools for IBM’s shrinking number of jobs if those urban schools buy IBM’s many products.

KU’s Unext.com and its MindQ are competing for the corporate worker retraining market. The success of these companies depends upon decreased job security. Making corporate retraining an outsourced element of corporations allows big corporations with benefits packages for employees to avoid paying these to in-house trainers. This exploitative practice of outsourcing is apparent in the university system. For example, St. Joseph’s University subcontracts food services from Aramark so that St. Joseph’s, despite its overt mission of ethics, care, and Jesuit concern with social justice, can have an underpaid staff of mostly black women on a wealthy white campus. These women and men are not entitled to free tuition, university benefits or decent pay despite the fact that they work on university grounds full-time and live in the mostly black working class neighborhoods surrounding this mostly white professionalclass school.

## EDUCATION ON THE LINE

KU’s Unext is also striving to be an online university which stands to worsen and intensify the effects of corporate power in education such as the anti-labor practice of contracting.

Unext.com will push its elite-school connections (would-be partners are said to include the London School of Economics and Colombia, Stanford, Cornell and Carnegie Mellon universities) and multimedia productions linking students and “mentors,” simulating classroom exchanges. (Strahler, 1999: 3)

Part of the problem with Milken’s plan for distance learning is that it defines the quality of instruction in typical market logic fashion – by the prestige carried by brand-

names. In other words, education as consumer commodity cannot comprehend necessary ethical and political questions such as to what extent this program of learning promotes democratic, equal, free, and just social relations in all social spheres or simply questions of whose interests this knowledge represents. But this online university is more than a high-tech form of instrumentalization and what educational critics have long identified as a form of technocratic rationality. It is also an attack on university labor and academic freedom.

The first fully-accredited online university, Jones University, is proving to be a model for future major players in the online learning market:

Jones University, which became the first online-only university to gain accreditation this spring, already has 600 adult students who pay \$4000 a year, vs. \$3200 at the average state college. Jones has no overhead for dorms or sports fields. And each course is a standard product taught by adjunct instructors instead of costly tenured professors. Still, Jones won't be profitable unless enrollment hits a projected 3000 in two years – a tall order for a college trying to build a reputation from scratch. (Morris, 1999: 90)

By linking to elite established universities, KU's Unext.com has avoided the credibility problem that Jones University faces. Yet, in order to profit Unext.com will be forced to use the same destructive tactics of standardized curriculum and extensive if not complete use of adjuncts (effectively an attack on the tenure system). David Levin, director of DePaul University's distance learning project says that online education is the "most rapidly growing area of distance learning. Every day or so, I see some new organization opening up" (Strahler). Many critics in education are proclaiming that this could mean the destruction of higher education. David F. Nobel, a history professor at York University in Toronto says, "Ten years from now we will look at the wired remains of our system and wonder how we let it happen" (Morris, 1999: 90).

Online distance learning in its corporate incarnation means more than the attacks on full-time academic labor, tenure, face to face instruction, and education as a form of critical dialogue. It implies a radically different educational culture and yet one which continues to structure unequal opportunities based on class position. As higher education continues to be prohibitively expensive for working class students, fewer of the most privileged students will have the opportunity to go to non-virtual college. Online education will inevitably bring with it a two-tiered system in which workers of the information economy can be trained to do low-paying high-skilled tasks. Recall KU's vision statement:

We believe that those who have the ability to learn and apply new skills are most likely to achieve career success and personal fulfillment.

As for those not privileged enough and not naturally endowed to consume Milken education or online distance learning, too bad, says the Milken rationale. Yet those slated for the ranks of control will not be denied real live education at universities with all that it entails. This is not, in other words, a system which offers more opportunities,

but a way for corporations such as KU to attack public education so they can benefit by selling private schooling, then sell worker training and vocational higher education to the students that they deprived of free universal education in the first place.

Despite the fact that conglomerates are scrambling to make the web into a way to lower educational overhead, critical educators should not underestimate the power and potential of online distance education for being a new counter-public sphere. As a counter-public sphere online distance education could possibly (depending on how it is configured) provide a space for critical educators and those concerned primarily with social justice to convene with social movements, labor organizers, foreign political parties, and subjugated populations internationally. Critical educators should rush to seize these emerging spaces rather than denouncing them as inherently oppressive. By being involved in the establishment of online distance learning, critical educators increase the possibilities for politicized curricula, a social justice agenda, and the preservation of labor conditions necessary for the maintenance of academic freedom. Of course, such struggles over the future of academic labor must be linked to multiple broader struggles against corporate power and privatization of the public sphere and for the expansion of genuinely democratic social relations and public life.

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## NOTES

<sup>1</sup>A much expanded version of this paper that, in part, links issues of corporatized education to global militarization appeared in Robin Truth Goodman and Kenneth J. Saltman, *Strange Love, or How We Learn to Stop Worrying and Love the Market*. Rowman & Littlefield, 2001.

<sup>2</sup>Business Week, March 2, 1998, p. 28

<sup>3</sup>The Nation, "The Corporate Curriculum" by Steven Manning, Sept. 27, 1999, p. 17.

<sup>4</sup>"Focus On Teachers," Education Week, February 3, 1999.

<sup>5</sup>"Focus On Teachers," Education Week, February 3, 1999.

<sup>6</sup>I am referring to the Milken-funded attack on Edward Said by former Israeli security official Justus Weiner in *Commentary Magazine* which turned out to be a series of falsehoods. The New York Times covered the Weiner allegations but never covered their refutations by Said himself and Alexander Cockburn.

<sup>7</sup>Todd Woody the Industry Standard

<sup>8</sup>Michael White, *Former Junk Bond King Rules Over New Empire*, AP, Boston Globe, May 2 1999, C15.

<sup>9</sup>Ibid.

<sup>10</sup>Ibid.

<sup>11</sup>Reactionary New York Times columnist Thomas Friedman actually says this explicitly in all earnestness.

<sup>12</sup>Ibid.

# The Digital Downside: Moving from Craft to Factory Production in Online Learning

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*Timothy Luke*

As someone who has taught online for over five years, but who also has done this work on a fairly small-scale in custom-made sites crafted by my department for our students and discipline, I am concerned about many recent developments in online learning. Basically, what have been craft-oriented kinds of production built as special-purpose solutions for specific programs and faculties are being displaced and/or subsumed by more standardized packages for large-scale teaching, class administration, and content management. These standardized applications are, in turn, created for sale on the open market to any college or university intent upon taking their lessons online. Why this is happening, who is seeking gains and evading costs by doing it, and how it is affecting higher education are now critical questions that need to be addressed. Consequently, I will attempt to provide some answers to them as I discuss the implications of this broader shift in online learning. This shift is neither necessary nor natural, so the forces pushing higher education in this direction need to be reconsidered.

With the passage of time, most social institutions change, and universities are no exception. Some schools may escape the rising tides of neoliberal cost-cutting by finding friends and funds out in society to continue their time-tested forms of excellence. Many others, however, face the hard realities of less financial support, diminished public backing, and fewer special prerogatives.<sup>1</sup> In this fiscal environment, a new “technofix,” or the distance and distributed learning technologies of the virtual university, is now believed by many to provide the single best solution for the fiscal problems of many institutions, even after the dot com bust of 2000–2001. Universities must change, according to these advocates of the virtual university, by becoming more efficient. By emulating for-profit businesses with their thin managerial hierarchies, “hollowed out” service centers, and flexible work forces, these voices claim colleges and universities finally will leave the dark ages.<sup>2</sup> Computer-mediated communications coupled with new multimedia content, and probably many more flex-time employees working without benefits or tenure, in turn, will complete this neoliberal model of restructuring, and make the university finally “deliver the goods.”

Yet, these business-based solutions are certain to get almost everything wrong: both for today's universities and for tomorrow's virtual university. New digital technologies should not be used in Taylorized work restructuring programs to cheapen labor, cut costs, and dilute product quality. The real promise of computer-mediated communication lies instead in using new technologies very creatively by repersonalizing some human interactions rather than misusing them so efficiently that they deaden everyone's personal involvement in higher learning. Online education is not worth doing unless and until its technologies are used to enhance everyone's learning rather than reduce an institution's costs of service.

These neoliberal agendas for online learning must not be turned into the only path for the salvation of higher education. In fact, much of the promise here for restructuring many universities is illusory. Digitalization by itself does not save money, reduce work force levels, accelerate progress toward degrees, or lower overhead costs. Every indication thus far suggests instead that if it is done right, or in ways that enhance learning, costs will increase with digitalization. Correspondingly, work forces will increase in size and responsibility. In the long term, degrees actually may not be taken at all. Likewise, digitalization can slow progress through academic programs, blur disciplinary divisions, and rapidly increase overhead expenditures for more bandwidth, server capacity, and software development. Nonetheless, the personal interactivity and general quality of higher education can be quite rewarding, so the nature of higher education could shift profoundly.<sup>3</sup> Of course, digitalization can help schools save money, but only by eliminating buildings and/or faculty.

No technology works as a one-dimensional force within any society. Computer-mediated communication is no exception. Many different agents are working for and against changing a vast array of structures, which are struggling, in turn, to bend these technologies to suit their diverse interests and agendas. On one side, there are those who see online learning as a mass production tool to construct thin, for-profit, and skill competency based systems of training for life-long learners, beginning at age five and continuing on through life's end. They are, in turn, pushing for the creation of large expensive systems on a mass media model, which essentially presumes production for global audiences. These groups are simply extending the long-run secular trends on campus toward de-emphasizing faculty control over the overall curriculum and instructional practices in general in the name of "assessment, "quality control," or "standards of learning." On the other side, there are those who believe digital technologies will make it possible to reorganize existing universities, colleges, and schools around qualitatively enriched forms of learned discourse and scholarly discipline without losing the thicker, not-for-profit, and degree-centered values of traditional academic life. These approaches typically are centered upon small-scale, craft-oriented, and student-centered systems built to serve smaller local ends. Both of these policy alliances are up and running on campus, and each of them currently is twisting and turning the tools and techniques of computer-mediated communication to advance their respective projects.

## POST-FORDISM GETS ON CAMPUS

The era of flexible specialization dawned off-campus in the late 1960s and early 1970s with the emergence of “a new social system beyond classic capitalism,” rising out of the digitalization of production, the globalization of exchange, and the deconcentration of organization by global business.<sup>4</sup> From the ruins of Fordist regimes of industrial production and state administration, loosely coupled transnational alliances of producers began to coordinate local markets, regional governments, global capital, and sophisticated technologies.<sup>5</sup> And these new agencies of flexible accumulation, working below and above the traditional power centers of national states and big business, also started experimenting with the means for evading most existing spatial barriers, time zones, and work rules.

As David Harvey has observed, the accumulation/production/regulation regime of flexible specialization “typically exploits a wide range of seemingly contingent geographical circumstances and reconstitutes them as structured internal elements of its own encompassing logic. . . . [T]he result has been the production of fragmentation, insecurity and ephemeral uneven development within a highly unified global space economy of capital flows.”<sup>6</sup> The teachings of the classic liberal arts traditions have little room to grow under the high-tech performativity norms embedded at the core of this flexible accumulation regime. When articulating the norms for this regulatory regimen, as Lyotard asserts, “the State and/or company must abandon the idealist and humanist narratives of legitimation in order to justify the new goals: in the discourse of today’s financial backers of research, the only credible goal is power. Scientists, technicians, and instruments are purchased not to find truth, but to augment power.”<sup>7</sup>

The creation, circulation, and consumption of knowledge, then, as it has evolved at modern research institutions during the Second Industrial Revolution, the rise of Fordist economies, or the growth of national welfare/warfare states from the 1880s through the 1980s, is now changing rapidly. Flexible specialization celebrates speed, variety, and diversity on a postnational scale. And, its informationalized productive forces require increasingly sophisticated inputs of data/information/knowledge from everywhere all of the time in order to function efficiently.<sup>8</sup> At this juncture, then, a new performativity ethic for post-Fordist schooling has started to displace the norms of *bildungsphilosophie* once enshrined in older, pre-informational modes of education.

Many colleges and universities nominally are state-funded operations, but the traditional commitment to higher education as a vital public good fully deserving of state monies has been lost amidst a new policy discourse that reimagines such cultural capital essentially as a private good. Rising tuition and fees, declining public funding, and increasing market awareness all are concrete proof, as James Appleberry, the president of the American Association of State Colleges and Universities says, “of a policy shift that reflects a sentiment that higher education is solely an individual benefit and need not be funded to further the country’s best interests.”<sup>9</sup> The emergent regime of flexible specialization, as Reich observes, actually renders all of these national agendas quite

problematic as fast capitalist operations hollow out national economies, pull individuals from one country to be trained in another to work in yet another, and reduce the rational timelines for any serious investment decision from decades to days.<sup>10</sup>

Success, then, for colleges and universities working under the norms of post-Fordist flexible specialization indicate that it will be necessary to do much less, not much more. Instead of expanding degree programs, hiring more faculty, enrolling additional students, buying more books, erecting new buildings, or elaborating disciplinary frameworks, the university of the 21st century might be effective only if it can discontinue degree programs, fire more faculty, enroll fewer students, buy fewer books, shutter existing facilities, and consolidate disciplines into more compact units. Knowledge is always shaped by power, and the productive power of transnational enterprise is pushing toward a world that configures knowledge in this fashion. Such moves, following those found in the “hollowed out” corporations of pre-informationalized manufacturing and services during the 1980s and 1990s, will succeed only if the university begins outsourcing its services, downsizing its offerings, flattening its hierarchies, and trimming its personnel.<sup>11</sup>

The results of these “innovations” on campus, of course, range from the basically abortive to the completely disastrous, because universities still should be “schools,” or rich cultural sites for leisurely learning, rather than “laboratories,” or spartan settings of laborious travail. Trying to impose notions from the downsized, post-Fordist workplace only burdens already overtaxed faculty and administrators with even more requirements to turn out new data, plans or reports about the daily affairs of their institutions. Actually, it is an egregious category mistake to cast universities as factories. Unlike most manufacturing operations, higher education should deal with specific qualities of people – not general properties of materials; discontinuous processes of intellectual growth – not continuous runs of uniform output; subjective communal decisions – not objective technical-choices; enriched free time avocations – not impoverished work time; vocations. Flexible specialization techniques on campus typically are a monstrous affair, culminating in assessments of students as if they were runs of widgets, absurd five-year cycles of post-tenure reviews in which one fifth of the faculty is surveyed every year by the other four-fifths to certify they are still “productive stock” like cotton fields or banana plantations, and curriculum reengineering schemes whose product is more paperwork to certify the processing of students in key “core education” classes, which now might constitute forty or fifty percent of all available classes.

## FROM CRAFT TO FACTORY PRODUCTION

For academics, the key question being raised by online learning is “job control.” The allure of possible efficiencies mystifies many important job control issues by bundling them up with technological innovations. These innovations only underscore the extent to which job control by professors on campus has already been severely eroded by pre-

vious efforts to emulate factory models of teaching. By choosing to take university instruction into online applications, one can decide tout court against many prerogatives now exercised by professors in face-to-face classroom teaching. The key rhetorical conceit of many multimedia-rich online learning alternatives is that professors simply are transmitting information in their traditional lectures and seminars. Therefore, their information-dispensing efforts, could, or even should, be enhanced, extended, or even extinguished by technological surrogates.

Yet, these technological interventions also mean to rob professors of their authority. In most large-scale instructional solutions, course syllabi are designed and constructed by technical designers, panels of experts, or outside consultants, and then sold as mass media products online or in boxes by publishers. Lectures, in turn, are automated with streaming video or graphics. Testing can be contracted out to assessment businesses, student advising, tutorial discussions, and independent studies, can be conducted by paraprofessional workers without Ph.D.s. At the end of the day, job control is lost. And, as the educational product is increasingly commodified, the current salary structures and status systems of academic labor will be replaced by a more stratified regime of a few professorial superstars whose “big names” will be sold in multimedia blockbusters that many lesser paraprofessionals help deliver to students in integrated markets of mass produced instruction, advising, discussion, and assessment. Neither education nor entertainment, these capital-intensive products could be only a dismal new sort of infotainment.

This image of the future rarely is painted by academics. Instead, it is the fancy of large corporations like Microsoft or Intel, lobbying groups like Educause, and the digerati like Nicholas Negroponte or Bill Gates. Repeating the same old silly anti-scholastic stories about professors making the transition from “the-sage-on-the-stage” to “the guide-on-the-side,” these simplistic narratives name technological imperatives, economic necessity, or unserved markets as the reason to recast the role of professors as researchers, teachers, and service-providers.<sup>12</sup> These allegedly inexorable forces of change are, in fact, lobbying campaigns by hardware manufacturers, software publishers, telecommunications vendors, and educational consultants playing off of familiar profscam mythologies of burnt-out profs rehashing canned lectures in front of bored students, this anti-craft-oriented wave of curricular reform is rethinking the role of the professor in order to sell their high-tech tools to support “wide distribution of lectures by a few famous scholars” in “customized multimedia tools” wielded by nonacademic technicians that “have a command of the technology” so “creating a course might be more like producing a Hollywood film or a video game.”<sup>13</sup> At that juncture, however, job control truly is gone, just as few novelists in Hollywood control what makes it on to the final movie print and even fewer computer artists ever dictate what gets set into code on the computer game cartridge. Film and video games are collective arts paid for with serious money, so it is unlikely that the individual performance art of university teaching would cash out any differently than the crafts behind major movies or giant games.

Up to this point, many online teaching projects work in the opposite register: small-scale, handicraft production for local use, not global exchange. Often one instructor maps his or her existing courses over to a website, generates computer-animated overheads, or organizes multimedia demonstrations to enliven traditional contact-style teaching and/or to experiment with asynchronous learning interactions. The material still mostly is a “home-made” production for “on-campus” circulation through “in-house” means of student consumption or “on-site” centers of knowledge accumulation. These applications are pitched to serve particular groups by professionals who know their needs and expectations in much more detail.

None of these expectations, however, are insurmountable obstacles in changing the nature of online learning. Working in new registers of medium-scale, team production or large-scale, corporate production undoubtedly can transform the current understandings of job control, working conditions, and career development shared by many academics toiling away in contemporary research universities. The development of disciplinary-software systems, such as Mathematica, Web CT, and Blackboard Course Info are leading to a curricular economy that is no longer one tied to handicraft work. Instead, these corporate innovations suggest that distance and distributed learning will become embedded in more factory-like, industrial organizations, involving integrated teams of labor, outside financial investors, and high-tech multi-media design in its creation and marketing.

Like radio in the 1920s or television in the 1950s, computer-mediated communications in the 1990s have been touted, first, as empowering, enlightening, and energizing technologies that will remake humanity and society anew, while, second, they have also become enmeshed in the existing circuits of corporate commodification. As Schiller notes, “radio, for example, as did television, initially offered enormous potential for the public’s health and social benefit. This has been squandered by the commercialism that has engulfed both media. This is the pattern now being extended to the electronic age.”<sup>14</sup> In keeping with the patterns Schiller documents, an Educom report on the growing prospects for a National Learning Infrastructure Initiative (NLII) argues the benefits of large-scale, industrial outputs of distance learning products will be many. Most significantly, however, is their potential “to be cost effective, dramatically reducing the two biggest costs of the current system: faculty and physical plant.”<sup>15</sup>

This shift toward more capital-intensive, large-scale, and mass-produced forms of online learning is an expression of other equally distressing tendencies in higher education. Once the more labor-intensive, small-scale, and craft-produced model of online teaching is superceded, there are openings for more globalizing private providers of higher education to build new markets. The University of Phoenix is an excellent case in point to examine these developments.

Launched in 1976 by John Sperling, a one-time professor of humanities at San Diego State University, the University of Phoenix and its for-profit operations evolved out of a series of adult education courses for police and teachers that the federal government funded to launch an anti-juvenile delinquency campaign.<sup>16</sup> Now it has 42,500

students at 116 sites in 22 states including Puerto Rico and Canada as well as on-line course sites accessible anywhere in the world that enroll over 1,500 students. Responding to the life-long learning market of nontraditional students, University of Phoenix is the epitome of cost control: it has a narrow practical curriculum, a nondisciplinary structure, little library resources, no research commitments, a flat, small central administration, and only part-time semi-professional faculty. Moreover, it runs on a for-profit basis; market performance, not peer review, valorizes its products.<sup>17</sup>

The reserve armies of the downsized, underemployed, and the nondegreed out in the post-Fordist white-collar proletariat are the University of Phoenix's student body, while the overworked ranks of the still employed, but underpaid or unchallenged, salariat provide the institution's faculty. With graduate degrees in their areas of teaching, and with real-world jobs tied to these areas of academic expertise, the faculty are trained to teach from a standardized set of lesson plans out of a proprietary software package owned by the university. Some have derided this "McEducation," but many others believe that this is what education should be, including the AT&T School of Business, which has used Phoenix accredited degree programs to let any AT&T employee earn bachelor's and master's degrees in-house. In fact, June Maul, the AT&T School of Business's development director, sums it up quite succinctly: "our students don't want to hear about hypothetical stuff out of a book. They want what's relevant to their real-world jobs."<sup>18</sup> Consequently, it is no surprise that 80 percent of students enrolled with the University of Phoenix study business or management, and most of the remaining fifth are in nursing, education or counseling degree programs.<sup>19</sup> The enduring truth that "hypothetical stuff out of a book" distinguishes institutions like the University of Chicago or New York University from the University of Phoenix is lost upon audiences like these.

Such mass production schemes for higher education reduce its "service delivery" to "content provision" and require its learners and teachers to turn their domestic spaces or workplaces into their campus. The University of Phoenix, for example, expects that its online instructors and enrollees "be computer literate and have access to their own computer and modem equipment."<sup>20</sup> Thus, many instructional spaces that usually host teaching and learning activities inside of material buildings can be dispensed with almost entirely as both students and teachers acquire, maintain and upgrade their own ports to the virtualized university's points of presence on the Internet. The university provides an administrative shell for accessing students, training teachers, credentialing learners, and sharing knowledge through loosely coupled transitory networks on-line. After going online in the late 1990s, the University of Phoenix's Online Campus primarily uses the Net to "service" students, but also makes use of it to find "professionals who are interested in applying to teach for the University of Phoenix OnLine Program," especially from "business, legal, and computer professionals with graduate degrees."<sup>21</sup> For the University of Phoenix, this cybernetic mediation is a virtue, not a vice. It "offers working adults the unparalleled convenience and flexibility of attending classes from your computer keyboard," because with the University of Phoenix's "easy

to use software, you'll be able to join your classmates and faculty member 24 hours a day, seven days a week, from virtually anywhere you happen to be -hotel room, airport, office, or the comfort of your own home."<sup>22</sup> With performative promises like these, the University of Phoenix has grown into a fully accredited university with the largest student body of all private universities in the United States.

## THE DIGITAL DOWNSIDE

Seeing the application of digital technics in university teaching as a replay of industrial rationalization in factories, David Noble baldly asserts that the conflict between craft-oriented and factory-style production here is consistent and clear: "the high-tech transformation of higher education is being initiated and implemented from the top down, either without any student and faculty involvement in the decision-making or despite it."<sup>23</sup> Yet this position is too simplistic. Not every web site is an automated experience, not all courseware presumes the end of human interaction in face-to-face terms, and not all administrators really know what they want when they push for these innovations. In fact, managerial authority on most campuses is highly diffuse, and it has been for decades. Some administrators see digitalization as a strategy for recentralizing authority and resources, but few of them yet have had the vision or knowledge to be successful in this regard, especially if they think they will save money by doing it. Therefore, Noble mostly decries the game of greed being played out today on university campuses:

Some skeptical faculty insist what they do cannot possibly be automated, and they are right. But it will be automated anyway, whatever the loss in educational quality. Because education, again, is not what all this is about; it is about making money. In short, the new technology of education, like the automation of other industries, robs faculty of their knowledge and skills, their control of their working life, and, ultimately, their means of livelihood.<sup>24</sup>

These trends might broaden, but they are not necessarily what seems to be unfolding with all online education. What is being automated often becomes so rapidly outdated, substantively and operationally, that it does not sell as well or as long as most critics believe. One class, one web page is not necessarily automation. It also can lead to a face-to-face form of "business as usual" plus a cobweb site.

The bigger issue is whether or not digitalization leads to a large-scale, automated product. Web sites can be alienating automated systems. They also might simply time shift the learning experience, create a telepresence for students and faculty to interact asynchronously, openly, and rapidly, and expand the range of documents used to support instruction with hypertext, multimedia or web content in addition to the print book or professorial lecture. Professors might design these learning relationships in ways that give them continued control over their livelihood, time, labor, and knowledge,

but they are increasingly integrated as content-providers into larger production units with higher costs.

Nothing happens automatically in online education, and many more people are needed daily to keep the technologies working, the content accessible, and the instruction effective. It takes many more people time and resources to teach the same number of students online, if they do it right. If they only replay prerecorded content, then the Internet is simply reduced to webcasting technics, which may or may not automate instruction. This new technology of education can rob professors of their knowledge, skills, livelihoods, while lessening their job control and cheapening their work product. Yet, this will happen only if online education is produced in certain ways by particular producers using peculiar rhetorics of performance. Noble is wrong: not all online education necessarily will always have these, and only these, attributes, particularly if careful craft-labor practices are followed by the faculty to keep it more quality-oriented and student-focused.<sup>25</sup>

Most of the courses now available on the Internet are not commodities. They are educational experiences that are purchased and used, like Polanyi's vision of "fictitious commodities."<sup>26</sup> As places in time and space, work to be covered in study, or credit acquired through effort, these distance learning classes are divided into units of credit and provided in exchange for tuition payments. At this time, not many of them are resold by the universities, faculty or students, who produce and consume them, as fungible commodities. Some are now designed, disintegrated or distilled down into "discrete, reified, and ultimately saleable things or packages of things,"<sup>27</sup> allowing many firms and some universities are developing such courses as "factual commodities." Even these products, however, often are quite different from most credit-bearing courses already being taught at various times and another location than campus – or asynchronously on the Net – inside the traditional fictitious economy of the academy. Those new courses, like Michael Milken's UNext.com experiments or University of Phoenix courses, are designed to be sold as commodities, but often they are sold only to particular corporate or institutional buyers with their own internal agendas for developing human capital in-house.

On the one hand, this industrial reorganization of higher education as "the knowledge business" could simply become one more sphere of conquest for corporate market-building. There are 3,600 colleges and universities, for example, in the United States alone. Over 12 million FTE students are enrolled in their courses of instruction, nearly 80 percent of them claim to be doing distance education, and about 40 percent claim to be teaching fully online classes. If every department, all libraries, each dormitory, every student center, all classrooms, each faculty office, not to mention administrative and support personnel, had personal computers installed at concentrations approaching one per student or one per faculty member, then millions of new product units will be sold, installed, and serviced. Being rational entrepreneurs, all of the world's computer builders, software packagers, and network installers are pursuing this goal by exerting tremendous pressure on colleges and universities to crack open their campuses to more

high-technology instruction so that these new markets can be made, serviced, or conquered.

On the other hand, however, online learning is meeting fierce opposition on many campuses. Few faculty see much merit in computerized teaching, not all students are computer literate, and many administrators are unable to find funds to pay for all of the computers and network connectivity that the private sector wants to sell them. The sale of computer-mediated learning to teachers, however, is not really where the virtual university starts and stops. Increasingly, these technologies are being introduced by university administrations to force open very closed, hierarchical, and bureaucratic faculty guilds to become allegedly more open, egalitarian, and consensual venues for collective decision-making. Online information sources, self-paced on-line application forms, and user-oriented online records management can take access to information out of the hands of faculty and their departments and hand it over to managers who actually are using it to sell educational services. Universities could retain their older, more closed faculty-centered structures, but it is their executive leadership that often is choosing to restructure them as looser, flatter and more responsive entities against faculty wishes by deploying more computer-mediated communication technology.<sup>28</sup>

None of these changes are foreordained, and the ultimate outcome for higher education will not match the most optimistic projections of their backers off-campus nor attain the most pessimistic fears of their opponents on-campus. As Gilbert claims, “existing universities must assimilate the new communications technologies, and with the utmost effectiveness seek to use the enormous benefits that ‘the digital revolution’ promises for the advancement of teaching, learning, research and communications generally.”<sup>29</sup> Gilbert is right, but it is how they assimilate them, when they do it, and who will be served when it is done that actually is what matters most.

Nonetheless, the new division of labor in large-scale online course design completely expresses Educause’s essentially revolutionary disregard for faculty members relying upon their small-scale, craft-centered local styles of professing, in which they have been authoritative “content experts” able to provide a more flexible and productive “combination of content expert, learning-process design expert, and process-implementation manager.”<sup>30</sup> Something will be lost in this flexibilized quest for performance: namely, quality, continuity, and autonomy for academic pursuits. Universities should not forsake their historic functions, namely, the cultivation of “a learning community in which students, teachers, researchers and scholars share a common commitment to rational inquiry, and through it to the creation, advancement, preservation and application of knowledge.”<sup>31</sup> because no one familiar with the corporate culture of Disney, Sony, or AT&T really can believe that they would promote free rational inquiry in the same ways that most universities still do. The virtual universities of this type can only produce a seemingly real education without much enduring value.

Colleges and universities must remain more than shell buildings for the knowledge business where outsourced academic workers reskill and refresh global corporations’ downsized/outsourced/overworked white-collar proletarians. If the traditional efforts of

the university as a knowledge collector and preserver, interpreter of data, and protector of social values are to be preserved, one of the best ways to insure the continuation of those functions is to sustain the locally diverse, small-scale, craft-oriented context of labor that has served universities so well throughout their history. Digital technology can enhance these traditions of education if the right choices for quality are made and maintained, but those who choose this path must always guard against profit-motivated interests asserting that digital technologies can only work well on much larger scales of operation.

## NOTES

<sup>1</sup>For some sense of how “the culture wars,” mask these political and economic shifts, see Lynne V. Cheney, *Telling the Truth: Why Our Culture and Our Country Have Stopped Making Sense – And What We Can Do About It* (New York: Simon & Schuster, 1995); Todd Gitlin, *The Twilight of Common Dreams: Why America is Wracked by Culture War* (New York: Henry Holt, 1995); Allan Bloom, *The Closing of the American Mind: How Higher Education Has Failed Democracy and Impoverished the Souls of Today’s Students* (New York: Simon and Schuster, 1987); Charles J. Sykes, *Profscam: Professors and the Demise of Higher Education* (New York: Kampmann and Co., 1988); Peter Shaw, *The War Against the Intellect: Episodes in the Decline of Discourse* (Iowa City: University of Iowa Press, 1989); Roger Kimball, *Tenured Radicals: How Politics Has Corrupted Our Higher Education* (New York: Harper and Row, 1990); Page Smith, *Killing the Spirit: Higher Education in America* (New York: Viking, 1990); Charles J. Sykes, *The Hollow Men: Politics and Corruption in Higher Education* (Washington, D.C.: Regnery Gateway, 1990); Dinesh D’souza, *Illiberal Education: The Politics of Race and Sex on Campus* (New York: Free Press, 1991); William J. Bennett, *The De-Valuing of America: The Fight for Our Culture and Our Children* (New York: Summit Books, 1992); Martin Anderson, *Impostors in the Temple: American Intellectuals Are Destroying Our Universities and Cheating Our Students of Their Future* (New York: Simon and Schuster, 1992); and, Robert H. Bork, *Slouching Towards Gomorrah: Modern Liberalism and American Decline* (New York: Harper Collins/Regan Books, 1996).

<sup>2</sup>See Stan Davis and Jim Botkin, *The Monster Under the Bed: How Business is Mastering the Opportunity of Knowledge for Profit* (New York: Simon & Schuster, 1995).

<sup>3</sup>For more discussion of these points, see papers from VPI&SU’s Cyberschool at <http://www.cyber.vt.edu/docs/papers.html>.

<sup>4</sup>Fredric Jameson, *Postmodernism or, The Cultural Logic of Late Capitalism* (Durham: Duke University Press, 1991), p. 54.

<sup>5</sup>Michael J. Piore and Charles F. Sabel, *The Second Industrial Divide* (New York: Basic Books, 1983); and, Peter Evans, *Embedded Autonomy: States & Industrial Transformation* (Princeton: Princeton University Press, 1995).

<sup>6</sup>David Harvey, *The Condition of Postmodernity* (Oxford: Blackwell, 1989), pp. 294, 296.

<sup>7</sup>Jean-Francois Lyotard, *The Postmodern Condition: A Report on Knowledge* (Minneapolis: University of Minnesota Press, 1984), p. 46.

<sup>8</sup>Lyotard, *Postmodern Condition*, pp. 44–46.

<sup>9</sup>The Washington Post (September 16, 1996), A3.

<sup>10</sup>Robert Reich, *The Work of Nations: Preparing Ourselves for 21st Century Capitalism* (New York: Knopf), pp. 110–118.

<sup>11</sup>Michael Gibbons et al., *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies* (Sage: London, 1994), pp. 1–16.

<sup>12</sup>See Educause’s claims at <http://www.educause.edu>.

<sup>13</sup>Jeffrey R. Young, "Rethinking the Role of the Professor in an Age of High-Tech Tools," *The Chronicle of Higher Education*, XLIV, no. 6 (October 3, 1997), A27.

<sup>14</sup>Herbert I. Schiller, *Information Inequality: The Deepening Social Crisis in America* (New York: Routledge, 1996).

<sup>15</sup>Robert C. Heterick, Jr., James R. Mingle, and Carol A. Twigg, *The Public Policy Implications of a Global Learning Infrastructure* (Washington, DC: Educom, 1997), 6. These layered efforts to blend different approaches toward teaching simultaneously on campus simply extend the tendencies in late capitalism to preserve multiple modes of production. For more discussion see Paolo Virilio and Michael Hardt, *Radical Thought in Italy: A Potential Politics* (Theory Out of Bounds, Vol. 7) (Minneapolis: University of Minnesota Press, 1996).

<sup>16</sup>See <http://www.phoenix.edu>.

<sup>17</sup>Guy Webster, "Market Makes Role Model of Renegade: Other Schools Copy Some of Sperling's Methods," *The Arizona Republic* (August 18, 1996), B1, B5; and, see Guy Webster, "Building an Education Empire: Adult School Made Modern by Phoenix U.," *The Arizona Republic* (August 18, 1996), B1, B4.

<sup>18</sup>Webster, "Building an Education Empire," B4.

<sup>19</sup>See <http://www.phoenix.edu>.

<sup>20</sup>*Ibid.*

<sup>21</sup>*Ibid.*

<sup>22</sup>*Ibid.*

<sup>23</sup>David F. Noble, *Digital Diploma Mills*, <http://www.communication.ucsd.edu/dl/ddm1.html>, pts. 1–4.

<sup>24</sup>*Ibid.*, pt. 1.

<sup>25</sup>Jeffrey Young, "David Noble's Battle to Defend the 'Sacred Space' of the Classroom," *The Chronicle of Higher Education*, XLVI, no. 30 (March 31, 2000), A47–49.

<sup>26</sup>Karl Polanyi, *The Great Transformation*. (Boston: Beacon Press, 1967).

<sup>27</sup>Noble, *Digital Diploma Mills*, pt. 3.

<sup>28</sup>For more discussion of such power blocs, see Hazard Adams, *The Academic Tribes*. (Urbana: University of Illinois Press, 1998.)

<sup>29</sup>Alan Gilbert, "The Virtual University," at <http://www.edfac.unimelb.edu.au>.

<sup>30</sup>Cited in Eyal Press and Jennifer Washburn, "Digital Diplomas," *Mother Jones*, 26, no. 1 (January/February 2001), 39.

<sup>31</sup>Gilbert, *The Virtual University*.

# From Utopianism to Weak Messianism: Electronic Culture's Spectral Moment

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*Stephanie Tripp*

The computerized writing classrooms at the University of Florida, like many networked classrooms in universities around the country, allow students and teachers to communicate in ways other than the traditional lecture and question-and-answer formats. Networked communications – from electronic mailing lists to “real time” chat environments – have prompted countless discussions about computer technology’s potential to empower students and de-center classroom authority. Lester Faigley exemplified an exuberance typical of early commentary on computer-assisted learning when, after experimenting with online chat software in his writing classes, he declared in 1992 that networked classrooms enabled a “utopian vision of class discussion” (185). Certainly the new computerized classrooms occasioned a good deal of pedagogical enthusiasm, speculation, and experimentation among instructors in UF’s Networked Writing Environment, and I believe some of those experiments did help empower students. Yet despite computer technology’s often remarkable leveling effect on classroom communications, we cannot ignore its role in enforcing institutional power. A case in point: no matter how many conduits UF’s networked classrooms provide students for transmitting their writing from one computer terminal to another, generally the screen of only one terminal – the one used by the instructor – can be projected onto the big screen in the front of the room.

I do not wish to present the example of the computer projectors as a product of sober reflection served up to temper earlier, “more naive” assessments of educational technology. To do so would be to ignore the very complex relationships among students, teachers, technology, and the larger framework of the university. Far too frequently, conversations about the oft-contradictory ways that computer technology functions in universities resort to progress narratives that seek to measure current test scores, student productivity, instructor efficiency, or even “classroom democracy” against past expectations or future predictions. Humanities scholars are as susceptible to these narratives as the most instrumentalist bureaucrats; the only differences are the perceived goals and criteria for measurement. Instead of mulling whether wiring the university is a step forward or backward, I want to consider what it means to occupy simultaneously the

diverse and often conflicting positions of an online academic: scholar, student, teacher, writer, reader, worker, manager, private citizen, public intellectual, subversive agent, authority figure. This essay explores the plight of scholars and teachers as they attempt to negotiate the treacherous borderlands between the traditional college campus and dot-edu. For those committed to socially conscious, critically reflective pedagogies and scholarly practices, working in an increasingly digitized university requires a new understanding of time, one that addresses not only troubled classifications such as “work time” and “leisure time,” but the very idea of time as a succession of present moments that unfold toward a recognizable end. With this in mind, I would like to oppose to the euphoric emancipation narratives so prevalent in the earliest days of the World Wide Web the notion of the “spectral moment.”

Jacques Derrida describes the spectral moment as “a moment that no longer belongs to time, . . . that is not docile to time, at least to what we call time” (xx). He makes this statement in the opening exordium to *Specters of Marx*, his most sustained engagement with philosophies of history. *Specters* addresses not only Marxist theories of history but also triumphal capitalist narratives typified by Francis Fukuyama’s ebullient declaration of the “end of history.” The spectral moment occurs as a temporal disjunction that belies any assertion of an historical continuum that occurs through a sequence of identical units of time. In this way, it takes up Walter Benjamin’s call that any critique of the concept of historical progress must begin by challenging the notion that events unfold “through a homogeneous, empty time” (261). In *Specters*, Derrida choreographs a pattern of connection between temporal disjunction and inheritance; spectrality; Hegelian “Spirit”; dialectical materialism; and the work of Heidegger, Kojève, and others through a complex reading of Hamlet’s lament that “the time is out of joint.” The prominence of these words from Shakespeare in Derrida’s text signals two things worth noting here. First, the assertion that time is “out of joint” participates in a critique of positivist historicism that resonates not only with Benjamin’s essay on the philosophy of history but also with a French intellectual tradition that includes the work of Gaston Bachelard and Louis Althusser.<sup>1</sup> Second, the figure of the melancholy Dane who utters these words invokes a problem familiar to academics working in a rapidly changing institutional and technological milieu: the problem of how (and why) to act.

Indeed, the question of action is central to *Specters of Marx*, yet its imbrication in some of the fiercest philosophical debates of the twentieth century assures that it remains a vexed one. Those familiar with Derrida’s role in those debates (and with his discursive strategies) would expect no prescriptions in *Specters*, and he characteristically offers none. Although the text catalogs a range of ills associated with the unchecked advances of global capitalism—from increasing intrusions on individual privacy to the heavy burden of debt on Third World countries—it does not delineate a specific course of intervention but instead gestures toward a more general responsibility of “committing oneself in a performative fashion” (50). Nevertheless, Derrida clearly affirms the importance of taking action when he avers his allegiance to the promise of justice invoked by the Communist Manifesto. He writes:

And a promise must promise to be kept, that is, not to remain “spiritual” or “abstract,” but to produce events, new effective forms of action, practice, organization, and so forth. To break with the “party form” or with some form of the State or the International does not mean to give up every form of practical or effective organization.<sup>2</sup> (89)

Because he makes no recourse to an established theoretical or political program, however, some critics argue that his call to “re-politicize” Marx is no more than empty rhetoric. Aijaz Ahmad, for instance, describes Derrida’s project as “an extreme form of anti-politics” (104). Terry Eagleton suggests that Derrida’s reading of Marx precludes the very program of Marxism itself: “Derrida’s indifference to almost all of the actual historical or theoretical manifestations of Marxism is a kind of empty transcendence – a typically deconstructive trumping of some alternative position which leaves one’s own case invulnerable only in proportion to its contentlessness” (87).

Evaluating *Specters of Marx* within a broad theoretical or political context falls outside the scope of this article, and many capable scholars already have taken up the matter elsewhere. Instead, I wish to concentrate on how Derrida’s treatment of spectrality and temporality in *Specters* pertains to the relationship between contemporary information technologies and the modern university. Today’s university has been transformed by what Manuel Castells describes as the rise of the Network Society, a convergence of economic, social, and technological factors that began to take shape in the United States in the 1970s. Castells distinguishes the Network Society’s “informational mode of development” from other modes, such as industrialism, by its “action of knowledge upon knowledge itself as the main source of productivity” (17). As knowledge itself has entered the cycle of economic production, the boundaries between commercial and academic interests have grown more porous. By the time the Internet became widely used on college campuses, Dan Schiller notes, universities already were being “reoriented toward familiar corporate practices that were foreign to the bulk of earlier educational endeavor: growing utilization of casualized labor, productivity enhancement measures, and product development based on profit and loss potentials” (*Digital Capitalism* 144). Western universities have become more commercialized as their role in preserving and perpetuating national cultures has diminished. The premises under which the modern research universities were founded during the past two centuries are giving way to new social and economic considerations, and, according to Bill Readings, the “University of Culture” is being remade as a corporate bureaucracy whose watchword is “excellence” (21). The “University of Excellence,” Readings writes, no longer serves as “the ideological arm of the nation-state” but trades in the creation and circulation of information for its own sake (40).

Because “excellence” is almost meaningless in itself – the term can be applied to everything from potato chips to surgical procedures – it can serve as an organizing ideal for various academic programs and disciplines regardless of subject, method, or mission.

As Readings points out, its value-neutral, all-inclusive character fits well with a globally networked corporate bureaucracy:

“Excellence” is like the cash-nexus in that it has no content; it is hence neither true nor false, neither ignorant nor self-conscious. It may be unjust, but we cannot seek its injustice in terms of a regime of truth or of self-knowledge. Its rule does not carry with it an automatic political or cultural orientation for it is not determined in relation to any identifiable instance of political power. This is one of the reasons why the success of left-wing criticism (with which I am personally in sympathy) is turning out to fit so well with institutional protocols, be it in the classroom or in the career profile. (13)

When the university’s mission was tied to that of the nation state, it was relatively easy to position oneself in support or in opposition to that mission and its attendant policies (even though the costs – censure, loss of employment, or even physical violence – may have been high). Under the new rubric, however, the most blistering criticism of government (or even of the university itself) may perversely lead to institutional rewards if that criticism is deemed to be “excellent.” Clearly, the terms of engagement have shifted. The new university cannot be analyzed effectively under binaries such as real-virtual or content-form; to do so would ignore, for example, how the “virtual” can render “real” effects or how “form” can function as “content.” These processes that seem to operate between the “here” and the “not here,” between the “now” and the “not now,” instead lend themselves to what Derrida calls “spectral logic.”

## OLD GHOSTS, NEW HAUNTS

The logic of the specter is the logic of that which is neither present nor absent, neither material nor spiritual; its paradoxical effects are elusive, yet they cannot be relegated to the realm of the purely imaginary. Its operations may appear most obvious in what we call “new media” – the Internet, wireless communications, multimedia applications – yet they are there as well in “old media.” In the case of the university, spectral logic suggests that what gets taught – “knowledge,” if you will – is inseparable from its mediation, be it through Web sites, videotapes, traditional lectures, or even pedagogical theories. Castells, whose approach differs greatly from Derrida’s, invokes the spectral in a very telling passage on the mediation of knowledge: “Because informationalism is based on the technology of knowledge and information, there is an especially close linkage between culture and productive forces, between spirit and matter, in the informational mode of development” (18; emphasis added). Communications technologies mediate power as well as information. As Derrida notes, dominant political, economic, cultural, and intellectual institutions rely on “techno-mediatic power” to reach ever-increasing numbers of individuals at ever-greater distances. Significantly, he considers the current

deployment of such power unprecedented, and he links it to a recent “acceleration of technical advances” (53).

The relationship between the “technical advances” that have been so abundant in the last two decades and Derrida’s recent allusions to spectrality requires careful elaboration. Situating the spectral moment merely as a product of late-twentieth or early-twenty-first century telecommunications practices would not only succumb to a fallacy of technological determinism, but it would pay little heed to Derrida’s nuanced handling of “media.” His use of the term encompasses much more than news-gathering organizations or electronic communications technologies. It also draws on nineteenth-century Spiritualism, which applied the name “medium” to a person believed to communicate with the dead. Interestingly, as John Durham Peters notes, “media” became associated with telecommunications by analogy with the practices of the Spiritualist medium (100). Derrida exploits these otherworldly connotations of “media” in his attempts to demonstrate the inescapably spectral nature of mediation. The shades of meaning resonate with one another as he addresses the political in terms of the shifting boundaries between public and private space:

And if this important frontier is being displaced, it is because the medium in which it is instituted, namely, the medium of the media themselves (news, the press, tele-communications, techno-tele-discursivity, techno-tele-iconicity, that which in general assures and determines the spacing of public space, the very possibility of the *res publica* and the phenomenality of the political), this element itself is neither living nor dead, present nor absent: it spectralizes. (50–51)

Another level of mediation emerges beyond the “media themselves,” and this medium – language itself – “spectralizes.” From nineteenth-century discussions of “dead letters” to late-twentieth-century literary theory, the ghostliness of language is a familiar topic to specialists in the modern languages. Outside the realm of specialized knowledge, however, such notions are viewed with polite skepticism, if not absolute disdain.

Although the spectrality of language may be as old as language itself, it has often been ignored by popular perceptions of communication. For centuries, print-centered Western culture has considered language to be tangible, fixed, and quantifiable, as evidenced by the phrase: “It’s right there in black and white.” During the past twenty years or so, however, state-of-the-art electronic telecommunications technologies have provided examples of everyday communications that are evanescent, mutable, and overdetermined. Allusions to the ephemerality of communication or ambiguity of the message are much less likely to offend the culture’s commonsense ideas of what it means to communicate than they were even a decade ago. The dizzying speed of contemporary telecommunications makes once easily dismissed assertions about the untimeliness of communication suddenly seem plausible. Even the most routine statements, when echoed back electronically at an unexpected moment or in an unanticipated context, can

evoke feelings of estrangement. Language may have been haunted for millennia, but popular awareness of certain “spectral effects” seems fairly recent.

In the University, uncanny encounters with the digitized word disrupt the rhythms of ordinary academic life and demand that we consider the multiple processes of mediation that we participate in each day. Techno-mediatic power is always at work in our teaching, our scholarship, our daily interaction with colleagues, and our administrative duties, no matter how high- or low-tech our workplace may be. Computers and contemporary telecommunications equipment leverage this power to new degrees. Such power cannot be summarily embraced or condemned; Derrida, for instance, states that it both “conditions and endangers any democracy” (54).

### STATES OF AN ONLINE ACADEMY

Those who have looked to the electronic classroom as a barometer of social progress in higher education cannot be anything but sorely disappointed with the present state of affairs. Rather than a utopia of de-centered pedagogy, progressive online communities, and digital democracy, the wired university has proven a mixed bag for academics in the Humanities. Access to information and resources has increased, but so has a tendency toward rationalization and “efficiency models” of education. On the one hand, Web-based distance education initiatives promise to expand the educational opportunities for those who live far away from universities, who cannot afford a traditional degree, or whose work schedules prohibit them from attending traditional classes. On the other, they threaten to curtail drastically the interaction between instructors and individual students and to subordinate an instructor’s specialized knowledge to mass-produced course templates. Computer networks have given knowledge workers opportunities to share information, build solidarity, and organize, but they also have made it easier for administrators to engage low-wage contract workers who may live and work hundreds of miles from their full-time colleagues.<sup>3</sup>

Those who are committed to a narrative of technological emancipation may characterize the ascent of efficiency models and the intrusions of market interests into the classroom as unfortunate setbacks in a clearly demarcated course of improvement. Others may argue that claims of increased access to information obscure the presence of escalating state control and corporate exploitation. A report by the American Federation of Teachers describes the often Manichaean flavor of the discourse in this statement about distance education: “There is a tendency toward the apocalyptic when discussing distance education, both in the minds of those who see DE as saving education and those who see it as the downfall of our once great system” (Kriger 6). It would be an understatement to suggest that the issue of educational technology has proved divisive to college faculty in the U.S. over the past decade, particularly in the Humanities. Critical or theoretical positions held by academics often are informed by

– but occasionally are in conflict with – positions occupied by those individuals within the institution itself. In many cases, a division presents itself between classroom instructors and administrators. In *Managed Professionals*, Gary Rhoades notes that the use of new technologies is an issue of growing importance in contract negotiations between faculty and administrators, even though most contracts have yet to address it in any significant way (175). Among the faculty themselves, clear divisions exist between those who incorporate new technologies into their teaching and those who do not. Very frequently, the use of computers is associated with college writing programs, which often are already marginalized within their respective departments and colleges. These inter-departmental divisions may emerge in discussions over budgets, curriculum, and the process of tenure and promotion.<sup>4</sup> Faculty who embrace new technologies may feel torn between emerging demands for their computer skills and the traditional demands of research and publication. Those who do not risk future marginalization by the institution.

Fearing complicity in decisions that will further corporatize or rationalize the university, many faculty insist on keeping their distance from classroom computer technology. Rhoades's analysis of dozens of contracts between universities and faculty unions concludes that "[t]here is little evidence of faculty negotiating active control over decisions surrounding the choice, purchase, and use of instructional technology" (208). Certainly, collective bargaining is not the sole source of faculty input on the matter of technology. Nevertheless, Rhoades's research provides insight into how a number of faculty are approaching the issue. For many institutions, the stakes are considerable: In the absence of a faculty voice, administrators and software companies decide what technologies are adopted and how they are used, and they present their choices as a fait accompli.<sup>5</sup>

If debates over classroom technologies have created new divisions among the faculty or exacerbated old ones, it is because they cut across more fundamental issues facing the academy today. Courses delivered through the use of computer technology, sometimes with teachers and students communicating at distances of hundreds of miles, call into question the place of the University and its relation to its students and the greater community. As class e-mail lists, electronic chat room discussions, and student hypertext projects join the lecture and the research paper, we must reconsider the limits of classroom space, class time, and student work. Is work performed in the virtual classroom equivalent to that performed in a traditional classroom? Does it merit the same credit and compensation? What about distance education courses developed from study modules, syllabi, and lecture outlines prepared by faculty who will not "teach" the course in any traditional understanding of the term, and who may no longer even be affiliated with the institutions offering the course? The appearance of the "virtual professor" not only raises fascinating questions concerning employment contracts and rights to intellectual property; it forces us to consider the virtuality of any academic labor.

To speak of labor as “virtual” does not render it less demanding, less productive, less worthy of compensation, or less “real” than it has ever been. Although administrative cost-cutters have seized on some aspects of virtual labor – the relative difficulty in documenting when and where it takes place, for example – to gain unfair advantages over employees, there is nothing inherently unjust in the classification itself. In a recent lecture on the state of the Humanities, Derrida touched on the complex manifestations of work—material, theoretical, and the many spaces in between. The lecture, titled “The Future of the Profession: Or, The Unconditional University (Thanks to the ‘Humanities,’ What Could Take Place Tomorrow),” explored the semantic field suggested by the term “profession”: the university professor, professionalization, and the act of professing, or committing oneself performatively to a duty. Traditionally, one becomes a professor by professing, or promising, to devote one’s life to studying and teaching a particular subject. Derrida noted that the production of a work, or oeuvre, is a relatively recent requirement of the job, even though the quality and extent of such work is perhaps the most important factor in obtaining permanent professional status in the form of tenure. Because the book can be recognized easily as a material commodity, the professor’s job can be defined as a producer of books and, by extension, of the knowledge contained in those books. Although the book remains well entrenched as the emblem of professional accomplishment in the academy, the rise of electronic modes of inscription challenges its status as the sole criteria of accomplishment. Moreover, the subject of tenure in the wired university is not limited to whether an electronic “work” can stand in for a printed one, but whether the job of the professor will continue to be defined by the production of “works” at all. In connecting the “future of the profession” to the question of work, Derrida calls attention to the virtuality of academic labor itself. Virtuality, as Derrida points out, precedes its contemporary notions of computer-mediated experience: “As long as there is the trace there is virtualization.” But he adds, “What is new quantitatively is the acceleration of the rhythm” (“The Future of the Profession”).

Derrida is not alone in suggesting that the problem of “virtual labor” is far from new. Dan Schiller, for instance, has traced the vexed status of intellectual labor – the uneasy relationship between “head” and “hand” – as it dovetails with the history of telecommunications.<sup>6</sup> Schiller observes that information technology and the labor and reform movements share a long history, going back in this country at least as far as the anti-monopoly reform movements over control of the telegraph system, the press, and the powerful combination of the two – the news wire services such as the Associated Press (xii). A central figure in Schiller’s narrative is philosopher John Dewey, who is credited as a founder of both communications theory and of the American Association of University Professors, the first faculty union in the U.S. According to Schiller, Dewey’s efforts to ameliorate the social division between physical and mental labor led to his characterization of collective intellectual work not as “labor” but as “organized intelli-

gence” (xii). The reluctance of many intellectuals in the academy to consider themselves workers persists today, even though employees of public higher education institutions comprise a significant component of organized labor in the United States.

Yet the voice of these workers has perhaps never been more critical than today. This group, as one of the largest and most highly educated segments of the work force, is uniquely suited to challenge the rhetoric of technological determinism that passes off choices based on expediency as inevitable consequences of the new economy. Although computer networks and high-speed telecommunications technology have made it easier for decision makers to restructure how labor is defined, deployed, and compensated at the turn of the millennium, as Manuel Castells points out, “technology per se is not the cause of the work arrangements to be found in the workplace” (256). Different results would occur, Castells argues, if information technologies are used to improve the quality of work and sustain productivity rather than to reduce payroll costs and boost earnings reports. “This model,” he writes, “is not the inevitable consequence of the informational paradigm but the result of an economic and political choice made by governments and companies selecting the ‘low road’ in the process of transition to the new, informational economy, mainly using productivity increases for short-term profitability” (255). While Castells’s focus is on the work force at large, his observations are more than relevant to the economics of higher education given the interest that state governments and university administrations have expressed in distance education as a relatively low-cost, money-making venture. One report suggests that in 2002, 85 percent of colleges and universities in the U.S. will offer some form of distance education courses, and administrators often cite financial reasons – budget cuts or a lack of classroom space – for their decisions.<sup>7</sup> Those who have worked with online teaching technologies know that alternative models of distance education – those with low student-instructor ratios, high degrees of interaction among class members, and creative uses of technology – are practiced every day. At issue is how to advocate the practice of these alternative models.

## THE UTOPIAN AND THE MESSIANIC

As the mediation of power, knowledge, desire, and productive energy operates at ever-greater frequencies in the online university, our attempts to intervene, predict, reflect, or resist seem increasingly out of sync with any given situation. Narratives of technological emancipation do not hold up under rigorous critique, yet critique itself is ill-equipped to handle the paradoxical manifestations of the virtual. How, then, can we negotiate the myriad contradictions permeating dot.edu without succumbing to ethical paralysis or cynical resignation? The approach would come from within the virtual itself, from the spectral moment that exists between an inscription and its uncanny double, and the promise that in that moment anything could happen.

Derrida offers as the defining instance of this promise the opening lines of *The Communist Manifesto*, and, in particular, the announcement by Marx and Engels that Europe is haunted by the “specter of communism.” What gives these words their remarkable force is not so much their claim on the past, but their radical futurity: They were not summoning communism from the grave, but conjuring it into being (*Specters* 37–38). This openness to the future, which Derrida describes as “a certain emancipatory and messianic affirmation” (89), would serve as the basis of any practice informed by the spectral moment. Derrida’s invocation of futurity might be taken in some sense as a flavor of Utopian optimism. Fredric Jameson, for instance, argues that motifs that have emerged in *Specters of Marx* and other examples of Derrida’s more recent work could be described as Utopian (59). Derrida himself, however, remains reluctant to apply the term to his work:

Although there is a critical potential in utopia which one should no doubt never completely renounce, above all when one can turn it into a motif of resistance against all alibis and all “realist” and “pragmatist” resignations, I still mistrust the word. In certain contexts, utopia, the word in any case, is all too easily associated with the dream, with demobilisation, with an impossibility that urges renouncement instead of action. The “impossible” of which I often speak is not the utopian, on the contrary it lends its own motion to desire, to action and to decision, it is the very figure of the real. It has duration, proximity, urgency. (Derrida and Assheuer 27)

Derrida’s “messianic affirmation” is not a gesture toward an optimistic certainty of redemption, but a belief that what appears impossible might somehow become possible. He uses the term “messianic” or “messianicity” rather than “messianism” in order “to designate a structure of experience rather than a religion” (167). That experience is a paradoxical “waiting without horizon of expectation” (168).

Critical to any examination of Derrida’s treatment of the messianic is an understanding of its relationship to the work of Walter Benjamin.<sup>8</sup> In the “Theses on the Philosophy of History,” Benjamin states that each generation carries a debt to those of the past and, thus, is endowed with “a weak Messianic power” (254). Although Benjamin’s discussion of the messianic mentions a sense of redemption, his words do not carry the sense of optimism that one might associate with this idea; indeed, his essay is imbued with sadness.<sup>9</sup> Benjamin, writes Fredric Jameson, “offers the supreme example of the intellectual committed to revolutionary values in a world in which revolution cannot be expected to happen” (62). For Benjamin, the messianic and its attendant possibility of redemption provided a tempered hopefulness and an ethical imperative at one of the bleakest moments in European history.

Derrida, like Benjamin, situates the messianic in a moment of hesitation. For Benjamin, that moment is one of “danger”; the past flashes up before disappearing forever. For Derrida, it is a moment of haunting; the spectral other makes its visitation in

the disjunction between presence and absence, life and death, matter and spirit, that conditions representation. Although the messianic “trembles on the edge” of this event, we cannot anticipate its arrival. Because the arrival is never contingent upon any specific occurrence, the messianic hesitation “does not paralyze any decision, any affirmation, any responsibility. On the contrary, it grants them their elementary condition” (Specters 169). The moment of hesitation – the spectral moment – enables us to act as though the impossible might be possible, however limited the opportunities for radical change may appear to be in our everyday experiences. The global communications networks, although often invasive and dangerously reductive, also serve as privileged sites of messianic possibility precisely because of their accelerated virtualization. The deployment of such technology, Derrida writes,

[ . . . ] obliges us more than ever to think the virtualization of space and time, the possibility of virtual events whose movement and speed prohibit us more than ever [ . . . ] from opposing presence to its representation, “real time” to “deferred time,” effectivity to its simulacrum, [ . . . ] It obliges us to think, from there, another space for democracy. For democracy-to-come and thus for justice. (169)

From this perspective, new education technologies are neither utopian agents of emancipation nor guarantors of enslavement. They are sites of possibility that are suffused with risk and that demand responsibility. Therefore, as teachers and intellectuals we should neither limit our engagement with new media to a programmatic critique nor an unreflective embrace but should exploit the ways these media call into question commonsense assumptions about “history,” “progress,” and “knowledge” itself. Analyzing the spectral effects of mediation helps us trace the diffuse and subtle workings of desire, coercion, and productive energy as they are projected onto the screens of our personal computers, our classrooms, and our collective imagination.

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## NOTES

<sup>1</sup>Althusser, for instance, opposes a theory of “structural differentiation” to both Hegelian and empiricist theories of history in his essay “The Errors of Classical Economics: An Outline for a Concept of Historical Time” in *Reading Capital* (91–118). For an overview of Althusser’s debt to the work of Bachelard, see Robert Young’s “The Scientific Critique of Historicism” in *White Mythologies: Writing History and the West* (48–68).

<sup>2</sup>Derrida cites a slightly longer version of this passage in response to criticism from Gayatri Chakravorty Spivak and others that *Specters of Marx* attempts to depoliticize (or, as Spivak suggests, refuses to “repoliticize”) Marx (“Marx & Sons” 263, n14). Spivak made her comments in “Ghostwriting,” which appeared in *Diacritics* 25:2 (65–84).

<sup>3</sup>Dan Schiller devotes a chapter of *Digital Capitalism* to analyzing the effects of new information technologies on higher education, including the broad-ranging efforts among education officials and university administrators over the past two decades to render U.S. higher education less “labor intensive.”

<sup>4</sup>The issue of institutional legitimation of faculty in the field of computers and writing has spawned a good deal of literature in professional journals, including a special issue of *Computers and Composition* devoted to obstacles that self-styled “technorhetoricians” encounter in the tenure process. (*Computers and Composition* 17 (2000)). In addition, the Modern Language Association and the Conference on College Composition and Communication have been popular forums on the matter; both organizations have developed informal guidelines on evaluating work that involves new technology.

<sup>5</sup>National labor organizations are increasingly stressing to their members the importance of their participation in technology initiatives. A report released in May 2001 by the American Federation of Teachers reflects this sentiment, as indicated by the following: “[I]t is proper, even necessary, for higher education faculty to make distance education work, but that may often mean contradicting current DE practice to affirm academic values. Faculty must mobilize behind the principle that democratic governance rather than top-down management produces better, more credible education” (Kriger 22).

<sup>6</sup>Schiller’s *Theorizing Communication: A History* (New York: Oxford, 1996) argues that the inability to reconcile intellectual labor within the general social category of “work” is responsible for some of the most troubling contradictions in communications theory.

<sup>7</sup>International Data Corporation, “Online Distance Learning in Higher Education, 1998–2002,” cited in Kriger (5).

<sup>8</sup>Two essays provide invaluable insights into Derrida’s debt to Benjamin in *Specters of Marx*: Werner Hamacher’s “Lingua Amissa: The Messianism of Commodity-Language and Derrida’s Specters of Marx” (*Ghostly Demarcations: A Symposium on Jacques Derrida’s Specters of Marx*. Ed. Michael Sprinker. London: Verso-NLB, 1999. 168–212) and Fredric Jameson’s “Marx’s Purloined Letter” (*New Left Review* 209 (1995): 75–110; reprinted in Sprinker, 26–67).

<sup>9</sup>Françoise Meltzer has an essay on Benjamin’s melancholic tendencies in relation to work, literary originality, and acedia, the sin of sloth, in *Hot Property: The Stakes and Claims of Literary Originality* (Chicago: The University of Chicago Press, 1994).

section 5

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## **TEACHING THE CYBORG**



## ***Section 5: Teaching the Cyborg***

### **Introduction**

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*Marc Bousquet*

What radical scholars must therefore rediscover is not merely that intellectuals play a significant role in the reproduction of capitalism and the capitalist state, but that education has been and remains every bit as much a contested terrain as the shop floor, the party caucus, and the halls of legislative assemblies.

—Clyde Barrow, *Universities and the Capitalist State*

In this moment, the uses of the university to capitalist rule have never been more apparent, producing in the United States a professional-managerial class whose responsibilities include the administration of labor in every corner of the globe, whose values, affects, skills, knowledge, and sense of historical destiny are all encompassed by Haraway's "informatics of domination."

So it behooves us to ask: to what other purposes may the university be put? What critical, activist, transformative commitments can be sustained by university pedagogy? Katie King, one of Haraway's earliest students, has been examining the intersection between feminism and the politics of writing technologies since the mid-1980s, and leads off this section with a compelling account of the university's resistances to critically-oriented scholarship around information technology, much of it coming from traditionally trained scholars in fields she expected to be sympathetic, such as Women's Studies. In posing questions such as "What social relations are 'frozen' in particular writing technologies?" or "How might writing be different if it had been invented by slaves for the purpose of revolt, rather than by their masters for purposes of control?" she presses beyond the univocal narratives of techno-determinism and techno-optimism to examine writing technologies embedded in a social field of struggle and a social field of alternate possibilities other than those expressed in a particular historical moment. By inviting students to narrate their own experiences with technologies, she

initiates a process of re-narration and re-imagination of the social space those technologies reflect, express, and sustain. Above all, her teaching practice aims to counter the widespread “poverty of imagination for social struggle.”

The effort to translate classroom resistance from the level of signs to the arena of political practice is the concern of Laura Sullivan’s compelling essay, “Resistance through Hypertext, ACTing UP in the Electronic Classroom.” In a class that uses multiple media sources from Paper Tiger TV and Zapatista websites to the ACT UP media campaigns, the anti-sweatshop movement, Mumia Abu-Jamal’s autobiography, and Communist poster art from the US, Vietnam, and Cuba, Sullivan attempts to support students in employing hypertext as an activist form.

At the core of Sullivan’s project is a use of hypertext that has been startlingly underutilized by progressives and professional writing teachers alike – student authorship of hypermedia. Despite the enormous potential of easy-to-use HTML editors to enable students to publish their writing to the Web, the use of hypertext writing assignments in the classroom at any level is overwhelmingly the exception rather than the rule. Classroom use of the Web is typically limited to information consumption rather than student authorship. Addressing the relationship between the conservative deployment of information technology and the overall role of the university in sustaining capitalist political economy, Sullivan’s course asks students to wrest ownership of the means of knowledge production from the university and make complex hypertexts in relation to organized political activism.

Pursuing the question of how the Web can function both as a resource (for, e.g., the integration of previously unavailable archival material into the classroom) and as a tool “so that students can become content providers,” Susan Schreibman discusses some of the changes in cognition among students who have acquired new reading processes as a result of a deep learning of hypertext navigation in multiple media. Observing the way that student comfort with intertextual relationships, game-like activities, and collaborative behavior can revitalize teaching, she documents several possibilities for creating active learning environments with a usefulness not only for the students but for other users as well.

The relationship between scholarly desire and other forms of passion for knowledge, such as the fan’s love of their subject, occupies Harvey Molloy in his meditation on scholarly, professional, and amateur modes of online reading and writing. Pointing out that the fan site is written for an actual, embodied mass readership whereas the implied reader of the student paper is traditionally the teacher, Molloy suggests that student Web authorship can benefit significantly by providing an “immediate sense of an audience for their work.” By participating in a larger communal project, the disciplinary connection with the teacher is complicated – enabling other students, friends, and family to visit the student’s writing. New forms of writing, including both hypertext and blogs, present not merely new literacies but new audiences and communities.

Chris Carter’s interview with Greg Ulmer traverses many of these themes of critical, experimental, and progressive pedagogy. Exploring the relationship between writ-

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ing technologies and the formation of critical/resistant subjectivities, Ulmer's various pedagogical experiments startle but also rebuild, dislodging students and teachers from the ossified relation of discipline and assessment, but preparing them also for a new relationship in shared commitments to social transformation. In such projects as the Florida Research Ensemble, the MeMorial, and the EmerAgency, Ulmer hopes to support the emergence of project identities both collectively conscious of collaborative commitment to emergent issues of justice and empowered by the sense that pedagogy can be about the formation of resistant agencies. Tracing the appearance of new rhetorics (of multivalence, textuality imbricated with "reality," etc), Ulmer's exchange with Carter discusses some of the ways that academically situated activities help to present the possibility of horizons other than those established by the limits of the digital commodity.



# Women in the Web

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*Katie King*

One of the project formats the editors solicited for this collection they described as “workplace narrative.” Not only will you read here a narrative of my workplace, my work, and my fellow workers, but also a commentary about some “working relations” narrativized within this workplace in January 2001. Telling stories, examining stories, and reshaping stories have all been essential activities in my teaching, research and professional understandings. This essay attempts to entangle and untangle stories of these sorts. Since 1986 I have been teaching university courses engaging the historical materialities and politics of writing, the contemporary meanings of which then included word processing and the net, and more recently the Web. I teach, do research, attend to administrative requirements, and share my services from a base entirely in a women’s studies department. (Only recently are there women’s studies departments, and it is still moderately unusual to have a full time – rather than joint – appointment in one.) The interdisciplinary field I discover, identify, and create I have been calling since 1986 “Feminism and Writing Technologies.” Feminism and writing technologies situates the history of the book and its archival interests, the study and practices of oral and print cultures, the creation and study of new cybercultures, and the feminist investigations of technosciences, all together as perspectives each upon the other, as practices each producing the others, as modes of critique and as forms of everyday life. In my workplace being able to name your research area is important, even more important in a women’s studies department in which researchers have often been trained in disciplinary fields. Something brief, easily identifiable, and disciplinarily understandable is preferred. “Feminism and writing technologies” never fills these requirements.

A field full of questions and questioning, working in feminism and writing technologies requires one to ask: What are the politics of making distinctions between the oral and the written? That is to say, what movements of power are involved? What assumptions are made? That orality is one thing? That such distinctions are self-evident? That there are single pivotal historical divides? That these ideal categories exist in the world? Whose “revolutions” are the alphabet, literacy, printing, or the Internet? Global conceptual categories are interrogated by local material practices, but what

counts as local? What counts as the material? the practical? the global? Assumption after assumption is necessarily excavated in feminism and writing technologies, each such assumption moving power in particular ways. Excavating such assumptions instead points to alternative pasts, alternative materialities, alternative contemporary possibilities, alternative movements of power. How to convey to students, to fellow cultural workers (such as my colleagues in women's studies, and other cultural activists across and through the borders of my workplace, a university) the pivotal importance of asking such questions and excavating such assumptions today, of broadening the historical and cultural frameworks of engagement so as to contest for all these deeply political meanings and materialities? How to understand this process as modes of critique, forms of everyday life and working relations? As a very junior faculty member participating in a women's studies faculty study group in the mid 80's, when I tried to explain that I was investigating the politics of making distinctions between what has been called "the oral" and "the written," a more senior historian impatiently insisted, "Something just is oral or written!" Although each feminist there cared about and taught the importance of denaturalizing cultural categories feminists critiqued, to no one was it obvious that orality and literacy were variations on nature and culture. When I was a postdoc in another university a friendly feminist colleague laughed when I said that "feminism and writing technologies" was a field I had to both recognize and invent, saying "You can't invent fields!" This from a person in the still relatively recently created field of "Women's Studies." Disciplines and new disciplinary formations depend on the naturalization of pivotal objects. (Bowker & Star 1999) Questioning such objects and the processes of naturalization within such communities of practice at best makes you look naive, at worst (in a university) makes you appear ignorant. Although I remembered very clearly these same reactions during the creation of the field of women's studies, others had not experienced them or had forgotten them, or simply thought that this analogy was irrelevant (perhaps, irreverent?).

As I conceptualize it the field of feminism and writing technologies includes histories of specific technologies, such as Internet, satellite TV and other interpenetrating communications infrastructures; printing, xeroxing and other forms of reproduction; computers, book wheels, codex and other linking devices; alphabets, chirographs, sound and video recording and other forms of inscription; pencils, typewriters and other marking implements; paper, screen and other surfaces of display; epic poetry, telenovelas and other formalized oralities; pictographs, websites and other artifacts of visual culture. It also includes the methods by which such technologies are studied in the academy and understood in everyday life: the working relations of technologies-in-use, including the formal and popular technologies of knowledge-making, if you will. It is feminism – theory and activism – that offers the ways of thinking about power investigating such methods. "Writing" in this sense comprehends its largest meaning: it participates in oralities, rather than becoming their opposite. It stresses meaning-making in many cultural forms; it stresses social processes that are momentarily stabilized in human devices. And "technologies" here are not just the latest machines for sale, or the instruments and

infrastructures of science, but the cultural refinements of skills and tools, extensions of human bodies and minds with which we and the world are continually reshaping in complex interconnecting agencies. “Writing technologies” are the objects of study, but “writing” technologies is also the process of engaging these objects. Story-making, story-telling, and the analysis of stories are pivotal in the various versions of the course I keep teaching, now over fifteen years. I have always had students make stories about alternative writing technologies as a key moment of insight in the course. In this I follow the marvelous thought experiments proposed by Richard Ohmann in a wonderfully prescient and now delightfully dated essay, “Literacy, Technology, and Monopoly Capital” (Ohmann 1985) which through all this time I have used to introduce the course.

As a “loosening-up exercise” Ohmann offers a series of scenarios for alternative origins of current technologies, each embodying rearrangements of power and value. They suggest other ways these familiar technologies might have turned out, might have been used to different purposes. This is the first one:

”Suppose that writing (a technology, as Walter Ong rightly insists) had been invented by slaves – say, in the Roman Empire – and for purposes of survival, resistance, and rebellion. How might they have devised a writing system to advance those purposes? Might it have been a shifting code, to preserve its secrets from masters? Might there have been a common form that could encode the different languages spoken by slaves? I don’t know, but my guess is that writing would not have evolved as it did, had its inventors wanted it as an aid to solidarity and revolt.” (680)

For me and for my students literally playing with the stories of technologies is the heart of the course: the “ah-ha!” moment that they take away with them. Over fifteen years students have produced lively and fanciful fables: activist stories about women’s labor organizing by writing the very wiring of the silicon chips used in computers, or poems about the origins of pink chalk and lesbian graffiti, or science fiction about the regendering of bodies “written upon” by surgery, or fictional diaries of young girls moving back through time to rewrite family abuse, and many other feminist imaginations of technology, writing, origins, gender, sexuality and activism. Many of these students are themselves captivated by their own creations. Most say they “hate science fiction” but after writing these stories discover science fictions that belie the (gendered) assumptions they had made about the genre.

Following Ohmann but shifting the focus a bit I talk about how stories we tell about technologies highlight or elide how they are made and why, their outcomes and calculations, and the ways they urge or assume how we might best encounter them. These stories can be dramatic or low-key, urgent or thoughtful, inviting or estranging, analytic or active, critical or admiring. As a result of these stories technologies can appear opaque, multiple, difficult; or singular, transparent and seamless. These stories are very powerful; indeed four different types of such stories seem to take up all the story-telling

space. Each one creates its own universe of legibility. Here I am going to call them “technological determinism,” “symptomatic technology,” “neutral technology,” (following Ohmann and others) and “technologies as frozen social relations” (following Donna Haraway). Some of these stories are better than others; indeed I want to argue that “technologies as frozen social relations” is the least misleading narrative with the most possibilities. But I also need to point out how compelling these other stories are, and that talking about technologies within only one of these narratives is quite difficult. Consciously and unconsciously I am not able to use only one narrative, even when that is what I intend. Each of these narratives has its virtues (that is, powers) and each is persuasive and useful. Learning which of these narratives one is using, habitually uses, is important, and is one of the tasks taken up in the course. I am going to describe each of these narratives in terms of television (and video recording). TV is the global sign for a fascinating set of technologies that complicates a range of assumptions people bring to the phrase “writing technologies.” At first glance it may even seem rather silly to call the various TV technologies writing technologies, especially to those who privilege inscription as “writing” and for whom writing is the very opposite of the aural and the photographic. But even for those who resist the largest meanings of writing technologies – as particular formalized processes of meaning-making embodied in specific cultural skills and devices – a second look in this age of WebTV may give them pause. Satellite and cable television are converging with telephone, computer and Internet technologies in ways that only this largest meaning of writing can apprehend. These convergences are explicitly commercial, political and technological in ways that are highly visible right now. This makes TV an extremely interesting example for description and analysis, one that calls upon and creates new intuitions about writing technologies. This current visibility also means that some of these knowledges are intuitively compelling to my students today.

The narrative of technological determinism is possibly the most pervasive story about technology. This is the narrative in which we elaborate the social consequences that follow inevitably upon “the seemingly accidental invention” (as Ohmann puts it 681) of, say, TV. (These examples and their focus on television are my own and not Ohmann’s, although he draws upon Raymond Williams’ work on television 1974) For example, telling this kind of story we might say: “The TV caused middle-class families of the 50s to retreat from community life and intensify their nuclear focus, huddling together around the warm glow of the living room TV set.” Ohmann focuses on what is misleading about such technological determinist stories: they suggest that these consequences are inevitable, that the technologies were invented without specific intentions, and that the technologies are singular, in themselves social forces. Agreeing with Ohmann I want to add that stories of technological determinism convey a dramatic sense of significance, sometimes of discontinuity (“revolution”) that is exciting and enticing. My examples are intended to highlight how attractive these stories are, how progressive people might use them, deliberately or unconsciously, and to what purpose. I am deliberately not giving examples that I think are easy to dismiss. I do not intend

to dismiss these stories at all. I point myself ambivalently to the sublime stories of technological determinism told by Marshall McLuhan and Walter Ong, theorists to whom I am deeply indebted, although of whom I can also be very critical. (for example, McLuhan 1962 and Ong 1982)

The second narrative, symptomatic technology, is the one in which TV, invented on the social margins, is used by central forces informing society. Telling this story we might say, "Our children have become ravenous consumers of junk watching TV commercial after TV commercial." Or we might declare, "Digital hype about the AOL-Time Warner merger is a symptom of rapacious late capitalism's death grip on every new market." What is deceptive about the narrative of symptomatic technology is the idea that technological invention is marginal to other great social forces which exploit such invention. On the other hand, such stories convey urgency and sometimes imply manifestos for social change. The third narrative is that of neutral technology. This is the narrative in which TV can be put to an amazing multitude of uses, oppressive and democratic, sexist and feminist, altruistic and profit-making. Inside this narrative we might say, "TV could either contribute to or work against teenage drinking; for every ad for drinking visible during the broadcast of athletic events, there is also some anti-drinking homily delivered by national and local stations and advertisers." (Yeah, sure, after much social protest, and as if that is a sufficient response.) Or in addressing the so-called Digital Divide we might assert, "Computers are not the problem, it is everyone not having access to them that is the concern." Such stories simply do not recognize technologies as created and deployed within, indeed embodying, relations of power. Still, these stories can allow for the de-escalation of rhetorical passion, thus making room for collaborative engagements with technology. But the problem is that each of these kinds of stories elides the processes of production and uses of technologies, and their agents and intentions. Ohmann clarifies, "technology . . . is itself a social process, saturated by the power relations around it, continually reshaped according to some people's intentions." Ohmann points out three tell-tale signals that one of these mystifying narratives is in play. The first is using phrases like "the computer" "as if it were one single stable device." The second is deploying such a phrase as a grammatical agent (for example, making it the subject of a sentence), and the third is using phrases like "man," "the mind," and "the human condition." Walter Ong does all three as Ohmann quotes him saying, ". . . the alphabet or print or the computer enters the mind, producing new states of awareness there." Ohmann observes, "[i]mplying that the technology somehow came before someone's intention to enable some minds to do some things" and making it appear "that technologies interact with people or with 'culture' in global, undifferentiated ways, rather than serving as an arena of interaction among classes, races, and other groups of unequal power." (681) It is to this clarification and correction that I attach Donna Haraway's term, naming the fourth narrative technologies as frozen social relations. (for example, Haraway 1997)

But giving you an example of a sentence within this narrative requires some explanation. That is because this narrative isn't simply parallel to the others, but intended as

their correction and clarification (if we follow but elaborate upon Ohmann, who doesn't actually offer an alternative narrative but only a critique of mystifications). Such a demystification, in Marxist terms, has a dynamic, visionary element: it is the narrative just in the process of coming-into-being as fields of power shift and reveal relationships previously difficult to apprehend. It is also the narrative within which such shiftings are examined in particular pasts, momentarily connected to this present when recent apprehensions shed new light on earlier configurations of technology and power. So working within this narrative requires us to actively consider which demystifications to elaborate and how; Ohmann's tell-tale signals are instructive here. How do we describe technologies without using phrases like "the computer" and making them grammatical agents, and without using other phrases like "man," "the mind," and "the human condition" and mobilizing the assumptions they embody? Do we want to do this? Will this sufficiently emphasize the processes of production and use of technologies and speak to their agents and intentions? How do we illuminate the saturation of social processes by power relations? How do we describe technologies without implying that they interact with people and culture in global, undifferentiated ways? The "virtue" of such narrative is the creation and scrutiny of newly usable pasts and alternative presents. What about the drama and urgency of these other narratives? or their de-escalations and engagements? what sorts of contradictions are revealed here? what kinds of animated engagements are envisionable and enactable? It is to all these permutations and possibilities that the thought experiments of the class address themselves.

Indeed, how about trying to do without phrases like "the computer"? What happens when you do this? Well, consider for a moment the phrase "the VCR." It has not been so long since you had to specify when using this phrase whether you meant VHS or Beta-Max in the U.S (two commercially distinct forms of video cassette recording). As the media fans I study and talk about in class know in very material ways, until recently you might have still meant Beta-Max in South America, and if you intend to share VHS tapes with other international fans you have to take into account whether your VHS system uses the U.S. standard NTSC or the European standard PAL and note that in France, Greece and Luxembourg VCRs are in VHS but TV is in Secam. A few very fancy very expensive players will play all these versions, but most VCRs will only play one of these variations, the local variety. Fans who make their own music videos from video clips copied from broadcast, cable, or satellite TV (more than one "the TV") sometimes have such fancy VCRs to facilitate their use of copies made by fan friends internationally, sometimes of programs not shown in their country; but most do not. So, in the U.S. we usually mean VHS NTSC when we use the term "the VCR." This is the result of two things: first, the so-called VHS/Beta-Max Wars, which Sony Corporation's Beta-Max video recording system "lost," for economic and technical reasons that are still in dispute; and second, the belated imposition of technology standards, albeit somewhat different ones in different places. (Although, indeed, the imposition of such standards may in fact be an element in economic dominance by the "winner.") In other words the phrase "the VCR" has meant and could mean at least Beta-

Max, VHS NTSC, VHS PAL, and VHS SECAM, and only appears to be “singular” in one’s own little local spot, where which of these possibilities is “the VCR” is the result of winners and losers in various economic struggles in layers of locals and globals. The phrase “the VCR” (or “the TV” or “video”) hides this play of possibility and the fields of power in which all these many objects are created and used. However, if you are not a media fan or a film production professional and you practice home video taping in the U.S. in order to see your favorite program which is inconveniently showing on that evening when you have to go to your friend’s birthday party, “the VCR” is a useful phrase when you tell your partner that yes, you’ve just programmed the VCR. Replacing the phrase “the VCR” does not result in a sentence, it results in a paragraph, a paragraph which includes information that is not always in local circulation (or is only in very local circulation; note locals and globals in layers). Telling the story of the VCR makes intuitive sense to my students, parts of it they are familiar with, other parts seem plausible, and it all takes place in the “real time” of their life.

Writing, telling and analyzing stories has been one way to invite students into the discourses on technologies. Resistances to technology, to the word “technology,” and to the gendering of technology, are all addressed by the course, but even more complicatedly, are strangely attracted to even the institutional elements of the course. For example, the name of the course has changed in recent years. For quite a while it was called “Feminism and Writing Technologies.” But students, colleagues and administrative advising people all pressured me to change the name. Lamentably, they argued, women students likely to take women’s studies courses were not likely to take classes with “technology” in the title. But, I pointed out, considering these very issues of the gendering of technology and thus the shaping of its meanings was at the heart of the course, which was indeed actually about technologies. Surely women turned away by technology in the title would be turned away by technology as the subject matter even if not reflected in the title? No, no, they encouraged, you approach it so differently, you just need to get them to start the course. Students who liked the course were very eloquent on this point, very persuasive. Big chunks of the course have always included considering women’s cultural productions of the past and learning how to recognize them even through the distorting lenses of the oral/written dichotomies and the limited cultural products valued within them. These elements of the course have attracted students interested in say, comparative literature or literary history. But other big chunks of the course have always included contemporary technologies of writing and their social meanings and powers. For a long time at my university, mine was the only course that addressed issues now called cyberculture studies or digital culture. (Now indeed whole classes are devoted to these topics.) Such elements attracted students in a variety of fields, including say, American studies or anthropology, who wanted to engage in this kind of research. And other elements of the course have focused on media and media fandoms, attracting students in cultural studies and communications. All in very small numbers, it must be said. For a while the course was called “The Politics of the Oral and the Written,” as many in my division could really only understand the course in histor-

ical and literary terms. But as the long devalued elements around contemporary technologies started being hyped elsewhere in the university, suddenly I was encouraged to make that now the center of the course. I continued to feel that the very issue at the root of the research area and its political stakes were in the ways that book history, cyberculture, orality and literacy studies, and feminist technoscience reflected upon and created each other. Creating what would now be, although feminist, another class in cyberculture seemed to me to betray the impulses that created the course and the field all along. Trying to respond to all these concerns, the course has been reshaped and renamed, its present version now called “Women on the Web: Ways of Writing in Historical Perspective.”

These and other resistances to technology or to reexamination of the assumed meanings of “technology,” are continual (and sometimes demoralizing) elements of teaching the course, explaining it or the field it introduces, or explaining approaches to feminist technology study. For years the only way my colleagues anywhere in the university could understand the work I do was to understand it as an (almost amateurish) “literary” approach to technology study, or as a kind of technical writing, or within the rubric of “teaching with technology.” Now that cyberculture studies has become visible to them, albeit with equal mixtures of hype and dismissal, the intellectual elements are somewhat more valued, but continue to be subordinated to the technical ones. For example, thinking she is finally able to encourage my work, an administrator will urge me to develop distance learning courses; or colleagues just learning about the Web’s uses in teaching are surprised that the course is not about making web pages. From the time I was a graduate student making extra money by teaching faculty members how to use Bell Labs “VI” or visual editor or “n-roff” and “t-roff” to print their writing out (all this in the days before personal computers) to last summer when I participated in instructional technology workshops on how to use the Web in classes, I have done work and “service” to share what (often very little) technical expertise I have painfully acquired. However, I have never been as expert as others have expected me to be (sometimes including myself), lacking at times resources, at other moments time itself, and all along always much more interested in broad intellectual and historical concerns than in the latest technologies. Only at distantly punctuated too brief moments have I ever been what my college’s technology support people call “an early adopter.” (I have often wondered from which lexicon this term emerges, and especially whether it is actually intended to describe the penetration of new markets. Among some of our technical support people it functions as a term of admiration or, better, flattery.)

The last time I taught “Women on the Web” I asked people to hand in a brief description of their experience with computers. I did in fact intend to teach them how to make a very simple web page, and I wanted to know something about them as a group so I could plan how best to approach the lesson. I assumed some already knew how to do web pages, while some might not have home access to computer equipment or have gotten computer accounts at school yet. My intentions were only to gather such background information. I asked “What equipment do you have access to? What can

you do? What would you like to know how to do?” But what I got instead were powerful and poignant stories that momentarily overwhelmed me. Those who I told to go sign up for computer accounts all told of being needled at the computer center about the class being in women’s studies: “I can’t imagine what for!” Others told stories of the history of computers in their family: “Throughout my childhood I believed that a computer was nothing more than an expensive complex clock that was more important to a father than his family.” And others talked of their own fascination with computers from early childhood, of learning to program quite young and their musings on its strange personal impersonality. Sharing these stories with each other contributed substantially to the culture of the course, in which students collaborated and reflected upon assignments. My own approach to making web pages, to using e-mail and class reflectors, to just getting access to equipment and accounts, was to make all these activities as low-key as possible, to encourage students to value the trial and error learning involved in the process, and to suggest (to myself and them) when stressed, pull back momentarily and give oneself more time to do whatever.

I notice that this approach is precisely not how teachers are counseled elsewhere in my university. Instead, putting courses online with Web interfaces tends to be done on a crash-course basis, in a very high stress time frame, sometimes with promises of support that turn out to be inadequate; and such teachers are encouraged to require students to get on board with coercive technology requirements and coercive rationales. Surveillance is one of the highly valued features of some uses of such Web interfaces (of the students and also of the teacher by the students and others) and any student resistances are met by statements such as (modeled for teachers to be addressed to students) “This is how the world is today, you’d better get used to it!” or (to teachers themselves) “They’ll never learn it or do it if you don’t make it a graded requirement!” When I teach students to make web pages, this section of the course is not graded (in fact occasionally students just don’t show up that day, and I never mention it). The point is partly the real fun of it, while it also gives students a hint of an idea of what’s involved in the web pages they see, something of the labor involved and also a bit of a demystification. Because the point of the course is not to make web pages, it doesn’t have to go anywhere else in the course, but students have opportunities also to include web page making into other assignments, as one optional form their work can take. I’ve had students who never do another thing with it in my class, to other students who (with the self-instructional websites I mark for them and demonstrate how to search for) end up at the end of class knowing much more about web pages than I do, making their own amazing sites. Since making them is not required, the fun of web pages comes to the fore (or at least, for some).

I have been working on a short book introducing feminism and writing technologies, and while writing it musing about and writing about the work of two feminist theorists of technoscience, Leigh Star and Lucy Suchman. Both with sociological training, they describe the “working relations” that are essential to technology use, that are the shadows under the “tip-of-the-iceberg” surface that is those objects we valorize as the

“technologies.” (Star 1999; Suchman 1999 & ND) They point out that instead technologies-in-use are actually “massive assemblages” of many devices (some sometimes not named or valued as “technology”) together with the many skills used by particular people, all together located in specific spaces and times. Not “single, stable devices” but rather assemblages and working relations. “Working relations are understood as socio-material connections that sustain the visible and invisible work required to construct coherent technologies and put them into use.” (Suchman online ND) My own students usually claim at the beginning of the course that they have little or no experiences with technologies. Sewing machines, food processors, stoves, even TVs, CD players and VCRs don’t count: these are all domestic items, and therefore not “technologies.” That is, the students explain to me patiently, because “technologies are male and new.” But it is not just the putative “maleness” and “newness” that cancels out other meanings of technology; it is also that working relations are not understood to be elements in the meaning of technologies. If one instead does pay attention to such analytic elements they allow for spaces to see and imagine women’s creative engagements with technologies, particularly for me, writing technologies. It is workers who construct “technologies” in the “articulation work” they do to create “a live practice.” (Hales 1993) Articulation work is required because work sites are characterized by, as Suchman says: “artifactual richness . . . a kind of archaeological layering of artifacts acquired, in bits and pieces, over time.” (Suchman 1999) Users too provide the articulation work needed to construct technological processes out of the assemblage of devices and conditions of work. “. . . the coherence of artifacts is a contingent and ongoing achievement of practices of design-in-use, in ways and to an extent that is missing from professional talk about finished products.” (Suchman 1999)

It is precisely this reality that is invisible within our university’s technology discourse, in its many variants – corporate, technical, pedagogical. The closest we seem to get to considering what Ohmann calls “an arena of interaction among classes, races, and other groups of unequal power” and what Star and Suchman call “working relations” is to talk about so-called “Digital Divides.” But this Digital Divide discourse is driven by corporate interests: their solutions to Digital Divides have been the penetration of all possible markets. (Stewart Millar 1998) (The website – [www.digitaldivide.gov](http://www.digitaldivide.gov) during the Clinton administration was run by the Department of Commerce. There is no such domain name today, and the DOC materials once collected there are now much more difficult to access, in deeply embedded hyperlinks. Neoliberalism almost looks good in comparison to neoconservative globalizations.) The corporatization of universities is empowered by the alliances with industry that information technology rich environments have made necessary and possible. Wooing transnational corporations is necessary for many technology initiatives on campus (from which I have occasionally benefited). Universities are among the “arena[s] of interaction among classes, races, and other groups of unequal power” involving technologies-in-use. A couple of years ago I

participated in a workshop on archives and technologies in a conference put on by a campus research and teaching center. My fantasy for our discussion was to pull together research and teaching concerns and passions in relation to archival work and the technologies it assumes, uses, and desires. Technical concerns (not surprisingly perhaps) tended to subsume the theoretical issues (although those of us putting the workshop together worked hard to continually reassert them). All questions about interactions among “groups of unequal power” kept being framed in terms of access to technology, in this context the “progressive” answer to which was to refuse to engage with technologies. The poverty of imagination for social struggle here is precisely what Ohmann years ago intended his thought experiments to move beyond. Folks in this workshop rightly were concerned about the increased workload involved in the corporatization of universities, but much of which they held new technologies accountable for. New technologies could be pointed to by administrators as both necessary and the reason for greater workloads, as if these greater workloads were singular to universities, and particular to our teaching requirements, as if unconnected to other processes of globalization. (Slaughter & Leslie 1997)

Resisting technologies – rather than altering working relations – is not a solution to increased workloads or to the corporatization of universities. These are political struggles that have to be engaged directly, in the activisms addressing specifically the restructuring of universities, and in those working for alternate globalizations (Bousquet 2002, Broad 2002) This is not to elide that technologies are indeed always about movements of power and inequalities, but rather a desire to focus and direct concerns about such inequalities, to highlight and engage working relations. This “workplace narrative” does not pretend to have clear solutions for often slow activist and professional interventions into working relations, nor do I intend to belittle conscious and unconscious forms of resistance to oppressive conditions of all sorts – sometimes enabled by, sometimes diverted by new technologies. Tangling and untangling stories is a kind of cultural work that questions assumptions and points to alternative possibilities. Connecting academic interdisciplinarity around archives, books, oralities, cybercultures and feminist technosciences as forms of critique and modes of everyday life is the work of feminism and writing technologies.

## NOTE

Some of my earlier published explorations of “Feminism and writing technologies” are found in articles – (1991) “Bibliography and a Feminist Apparatus of Literary Production.” *TEXT 5: Transactions of the Society for Textual Scholarship* 91–103; and (1994) “Feminism and Writing Technologies: Teaching Queerish Travels through Maps, Territories, and Pattern.” *Configurations 2*: 89–106 – and my book – (1994) *Theory in its Feminist Travels: Conversations in U.S. Women’s Movements*. Bloomington: Indiana University Press.

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# Resistance Through Hypertext: ACTing UP in the Electronic Classroom

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*Laura Sullivan*

Rosemary Hennessy challenges progressive academics “to return cultural studies to the fundamental category of capital” (83). To do so will mean going against the dominant tendencies within a discipline which often “produces ways of understanding that exile meaning-making and identity in the realm of culture, sheltered from any link to capital or class” and thus “reiterate[s] a cultural logic that has been one of capitalism’s most potent ideological forms” (83). My work in the electronic classroom has tried to avoid the kind of cultural studies that Hennessy describes, even if many of her charges apply to dominant trends within electronic pedagogy. To use the Web and hypertext as sites of resistance, I believe, necessitates a critical look at the field of computers and writing. Most discussions of cyberpedagogy are not only celebratory; they also naively replicate the logic of contemporary capitalism. For example, as Hennessy notes, “knowledges that promote . . . neoliberalism” include “the advocacy of entrepreneurial initiative and individualism – in the form of self-help, volunteerism, or morality rooted in free will and personal responsibility” (78). One way that this neoliberal logic comes through in the discourses about electronic classroom experiences is in the emphasis upon the “empowerment” of students through, for instance, hypertext authoring and navigating, as if mapping one’s hypertext writing processes or choosing which paths to view were themselves inherently liberatory activities.

Michael Joyce, for example, often echoes this type of logic. Writing about Storyspace, a software program that enables hypertextual writing different from that on the World Wide Web, Joyce celebrates hypertext as a form for many of the same unmaterialist reasons as other teachers of electronic writing.<sup>1</sup> He reveres the way that hypertext creation enables reciprocity and the overturning of hierarchy. He asserts that “constructive hypertext,” because it “requires a capability to create, change, and recover particular encounters within a developing body of knowledge or writing process,” counters the presently “consumerist” nature of hypertext (101).

Yet, exactly how is Joyce using the concepts of “production” and “consumption”? Both occur at the level of the hypertext’s creation and reception; blurring these processes

and making them collective is what makes hypertext progressive in the eyes of critics such as Joyce. While students do gain both knowledge and confidence in the act of hypertextual production, however, production in the wider sense is likely to be lost on them. The “consumer culture” that Joyce critiques involves more than just the passivity of typical hypertext reception which he contrasts to Storyspace’s capacity that allows readers to contribute additional input to hypertexts; its logic obscures the site of exploitation in capitalism: production and the extraction of surplus value. In the popular discourses about hypertext’s potential, class, as related to the structure of exploitative labor relations, is nowhere in the picture. Resistance takes place only at the level of signs, without their connection to the structures that produce both them and subjects.

## WRITING THROUGH MEDIA

In this essay, I describe my experiences teaching a series of Writing through Media courses in the University of Florida’s Networked Writing Environment.<sup>2</sup> Drawing upon the teaching strategies developed by media theorist Gregory Ulmer, I use a series of media texts – both verbal and visual – as relays (or models) for designing another text. Focusing on political activism and mass media, students in my class examine such activist media texts as the videos of Paper Tiger Television; websites, letters, and stories of the Zapatistas in Mexico; media campaigns produced by the AIDS activist group, ACT UP; protest art, as exemplified in the book *Decade of Protest: Political Posters from the United States, Viet Nam, and Cuba 1965–1975*; public art activism, such as the National Clothesline Project; media campaigns related to the garment industry as detailed in the book *No Sweat: Fashion, Free Trade, and the Rights of Garment Workers*; and activist autobiographies, such as Mumia Abu-Jamal’s *Live from Death Row*. The class reads and views these texts and collectively extrapolates their hidden and unintentional “instructions” for our final projects, in which we design and invent a new form – the activist hypertext. Our relays suggest that, like the activists we study, students must bring to their hypertextual production both personal passion and information gleaned from research on their topics.

The course is centered around the political economy of higher education, as this topic is centrally connected to the material conditions of students’ lives, and as the hypertexts combine autobiography with activism. I want students to critique capitalism and its dominant ideological messages and to think through the ways that their personal beliefs and daily interactions are related to the socioeconomic structure. I require that their activist texts be concerned with some arena of higher education. In Freirian fashion, the content of the course and of student work is directly linked to the material conditions that influence students’ daily experiences (McLaren 143). However, while I create courses and assignments that encourage students to draw upon their personal experiences and that emphasize changes in student consciousness, I work to avoid the depoliticized version of Freirian pedagogy described by Peter McLaren:

Where Freire was implacably prosocialist, critical pedagogy – his stepchild – has become (at least in classrooms throughout the United States) little more than liberalism refurbished with some lexical help from Freire (as in words like ‘praxis’ and ‘dialogue’) and basically is used to camouflage existing capitalist social relations under a plethora of eirenic proclamations and classroom strategies (xxv).

In keeping with Freire’s activism core, I situate the course within a Marxist understanding of the central role of the organization of labor under capitalism. The contradictions of capitalism are especially evident in the educational system, not least in the daily frustrations experienced by our students. To try to help students connect these two realms, socioeconomic structure and daily experience, I provide them with information and with thoughtfully and collaboratively designed (hyper)textual experiments. I contextualize our own participation in a high-tech environment and share concrete information about the state of higher education, especially as relates to changes in the political economy. I lay out an explicitly systemic, i.e., Marxist, framework for making sense of this information. I design experimental electronic projects that enable students to explore – both analytically and emotionally – how deeply this exploitative system influences their daily lives.

## CONTEXT FOR THE COURSE

One of the fundamental characteristics of capitalism is that it does not – in fact, cannot – meet most people’s basic needs, either physical or affective. As a result, capitalism needs the production of ideologies that counter this fundamental aspect of this economic structure, or that, at the very least, rationalize the existence of what Evan Watkins calls the “throwaways” of society, “whole groups of the population who are being identified . . . as obsolete” (14). As Hennessy explains, “the success of neoliberalism is directly related to the triumph of ways of knowing and forms of consciousness that obscure its enabling conditions” (78). One popular strategy for concealing the effects of higher education’s increasing privatization originated in the 1990s and promoted a picture of the university as the unholy site that houses leagues of “tenured radicals,” to quote the title of Roger Kimball’s 1990 book. Hennessy describes how universities are depicted from this perspective: “as unorganized bastions of progressivism. Often represented as the last shelter of the fragmented left, universities have been linked in the public imagination with ‘politically correct’ challenges to traditional values” (78). This picture is not only highly distorted and inaccurate (Hennessy 78); it also prevents critiques of other political dynamics. For example, as Carol Stabile demonstrates, this focus on “political correctness” diverted the public’s attention away from the egregious actions of the Bush administration in the undertaking of first the Gulf War (“Another Brick”).

Administrators and politicians who design and implement the policies that govern institutions of higher education employ another currently popular neoliberal ideologi-

cal strategy to deal with the changing role of such institutions. They capitalize upon the cultural valorization of the logic of individualism, the social Darwinist thinking that permeates political rhetoric and the mass media these days. Contemporary students often enter universities with the liberal belief that they can “get ahead” economically if they just “work hard” and apply themselves. They are rudely awakened, right away, at schools like mine, obscenely large research universities that routinely rush students through an ever-more-technically focused education. However, they are without any framework through which to interpret the discrepancy between their expectations and experiences. My course seeks to address this discrepancy and to provide students with explanatory models and ideas. I find the electronic classroom environment, and the hypertextual form in particular, to be especially helpful in achieving these pedagogical goals.

A course that asks students to investigate the political and economic dynamics of higher education needs to be based in an acute awareness of the positions within capitalism that college students currently occupy and needs to foreground these elements within the course itself. Students are caught up in the intensified squeeze on public services (including the tightening of budgets for public education), the increased downsizing and outsourcing, the global restructuring that involves the relocation of labor to the South and to the East, and the continually rising rates of unemployment. College students are positioned as both commodities and consumers. Universities increasingly view students as “inputs” and as “products” in an overtly corporatized model of how institutions of higher learning should function (Rhoades and Slaughter 39). Student credit hours become income generators, helping to secure more state funding, for example. While students are wooed as “customers” of the educational experience, with glossy brochures and resort-style preview tours, they are also viewed in objectified fashion as commodities themselves, as the shiny products of the rationalized learning experience. At the same time, students are viewed by capitalist corporations as a crucial, burgeoning market, as evidenced in the plethora of advertisements directed at young adults, aged 18–25. Commodities are offered as substitutes for agency – “freedom” is equivalent to the “freedom” to buy and the “freedom” of commodified style. (Reflecting this naturalized equivalency, one youth-oriented Tommy Hilfiger cologne is called simply “Freedom.”) Credit card companies barrage college students with their advertisements and “pre-approved” applications. I discuss these developments with students and ask them to consider their place within this picture.

This media activism course is also situated within the larger picture of resistance efforts that focus on higher education. Most models of academic labor activism neglect to consider the important role of undergraduate students in our struggles. Because our students are, like all of us, victimized by the slashing of funds to higher education in the U. S. and by the radical restructuring of the academy into an ever-more technically focused R&D arm for the corporate sector, they make excellent allies in our academic labor efforts. To build an effective movement that cuts across all levels of labor at the

university level, we must also include those whose labor is mostly invisible and unrewarded: our students. I designed this course – and the activist hypertext project that is the course’s central assignment – with these connections in mind.

I begin by reminding students of the social and economic context that forms the backdrop for our meeting in the electronic classroom. For the oppressive roles of technologies of cyberspace cannot be forgotten by progressive pedagogues who hope to utilize these technologies for ends more liberatory than those envisioned by transnational capital. A materialist electronic pedagogy should avoid technological determinism in both positive and negative senses, recognizing, as Jesse Drew points out, that new media technologies are always contested sites where there is a struggle between private and public interests. Cyberspace is such a site at this point in time, and the Web in particular is the place where commercial and public entities vie for control. Thus, using the Web for progressive projects does not occur in a vacuum, but rather occurs within the context of this larger arena of contestation. At a very basic level, dynamics of capital come into play in the very classrooms in which we teach, in the very fact of the access we have to technology that enables us to create and view hypertexts.

Computers are used in education to reinforce a cognitive psychological model and the logic of consumerism. Monty Neill explains that, “Cognitive psychology is more useful [than behaviorism] to today’s system, which needs workers to think for the system and to think differently, manipulating abstract symbols” (189). Writing in 1995, Neill predicts that computers will not be used by educational institutions to help students become adept at critical thinking, but will, instead, “produce the human as puzzle-solver” (192). He explains:

The McDonald’s level of familiarity with technology requires no actual knowledge of computers or much thought. Data-entry (with the computer monitoring your speed) and similar work does not require higher-order thinking. Schools will train students to sit in front of computers and do routine work in direct preparation for their jobs. For them, this will be their real-world learning connection (188).

My students read Neill and other critics who document the ways that capitalism is using computers in education and labor in order to maximize profits, so that in our course we do not replicate a naively utopian logic that promotes new media technology as a panacea for world problems. As with all contested technologies, there are uses of computers that are potentially progressive. In her trenchant analysis of the problematic nature of both technophobic and technophilic feminisms, Stabile reminds us that technology’s liberatory potential is historical; that is, such potential depends on how technology is situated within a social structure and towards what purpose it is employed (Feminism). I am interested in the way that technologies of cyberspace – particularly hypertext and the World Wide Web – can be used as tools to enable people to critique the existing society more effectively.

## ASSIGNMENTS

The course addresses a central problem with which recent Marxist theory has been concerned: the role of subjectivity in exploitation and in superstructural mediations of the inequality engendered by the conditions of production under capitalism. From Louis Althusser to Fredric Jameson, Marxist thinkers work to articulate how oppressed subjects can act to change the world – the question of agency. Employing theories from both cultural studies and media studies, we problematize the mass media’s role in the ideological side of social control and investigate possibilities for resistance. Students study the media’s techniques of persuasion and manipulation, as well as activist attempts to use the media’s own conventions (such as those in advertising) for subversive ends.

Course assignments build upon one another throughout the semester and all assignments contribute elements to the creation of the final project hypertexts. The course is structured so that we address its two threads – higher education and media activism – throughout the term and then weave them together in the final hypertexts. I ask students to think critically and aesthetically at the same time, which requires a classroom environment that functions both as a seminar and as a kind of art studio where we bounce around ideas for textual design strategies as much as we consider the specifics of the activist causes that we study, including academic labor activism. I believe that encouraging each other to cultivate both our intellectual and creative capabilities, and our confidence in them, is crucial to any activist project. The assignments in this course – “Fragments of a Student’s Discourse,” advertisement analyses, research papers, and the culminating final project hypertexts – provide students with just such encouragement.

### “FRAGMENTS OF A STUDENT’S DISCOURSE”

The first assignment is itself the product of a heuritic method. As described in *TextBook*, an innovative composition and literature text authored by Nancy Comley, Robert Scholes, and Gregory L. Ulmer, we borrow the techniques used by Roland Barthes in his *Fragments of a Lover’s Discourse* to design something called “Fragments of a Student’s Discourse” (211–219). This exercise demonstrates in miniature how to use a text as a “relay.” We take the textual form of Barthes – his use of numbered paragraphs for each “figure” and his interweaving of personal reflections and experiences with references from cultural texts – and apply it to the realm of higher education and to the experience of being college students. The “Fragments” get us started towards one of the goals for the course and the final project hypertexts, to explore “how psychic investments are socially produced” (Hennessy 87). Student figures in these fragments’ assignment include such topics as “confusion,” “procrastination,” “insomnia,” “escape(ing).”

I also require students to put their “Fragments” on the Web, primarily so as to demystify hypertext and Hypertext Mark-up Language (HTML) at the onset of the term. Students typically enjoy writing these fragments, probably because these texts describe their own personal experiences and because they employ narrative and creative styles of writing. They also gain valuable confidence in their own abilities as creators of documents that employ HTML and are featured on the Web. Although these fragments are written individually, students view each other’s work on the Web, and, as a result, the documents come to be a kind of collective statement about the way that students’ experiences are not isolated or divorced from institutional organization. I want the students to begin to think that their struggles with school are not “just about me” – that they might be interpreted through frames other than that of personal inadequacy.

### ADVERTISEMENT ANALYSIS AND REWORKING

The next assignment focuses on one of the primary types of media texts studied in this course, advertising. Young adult students are sophisticated analysts of advertisements, having been surrounded by such texts all their lives. Moreover, the dynamics of advertising are central to the ideological workings of contemporary capital and as such must be critiqued. At the same time, there are gaps within these texts that can be mined for more liberatory, perhaps even revolutionary, thinking. Finally, the logic of advertising is similar to the logic of hypertext in that it incorporates an emotional, imaginative, experiential dimension. We follow the practices of our activist inspirations by becoming skilled enough at decoding the conventions of media texts such as advertisements so that we can use these same conventions in a more subversive manner.

Doris Louise-Haineault and Yves Roy characterize advertising as a two-move endeavor, one in which the first move opens up possibility and the second move contains that possibility, redirecting it towards the only action possible in this discourse: consumption. So, to use Louise-Haineault and Roy’s psychoanalytic paradigm, if advertisements first stimulate desire, present problems, open up threatening “drives” and “phantasms,” appeal to the defenses of drives, and evoke subversive possibilities, they then contain and redirect desire, present solutions (in the form of consumption), contain threatening drives, comfort the viewer, and undercut any subversive possibilities suggested by other elements within them. I want students to study how this one-two strategy of advertising works; this assignment aids them in that task.

Stuart Ewen further articulates the nature of the “containment” performed by advertising. He explains that “the marketing of style, in its images, surfaces, and scents” promotes “not only a dream of public identity, but it also plumbs the wells of inner identity” (106, original emphases). Along these lines, “Advertising . . . also contribute[s] to a restructured perception of the resources and alternatives [that] are available to people in their everyday lives” (Ewen 41). That is, in providing “a symbolic politics of tran-

scendence,” the marketing of style “invest[s] purchasable commodities with connotations of action” such that

having vies with doing in the available lexicon of self-realization. Acting upon the world gives way to the possession of objects/images that suggest the qualities of active personhood . . . As a surrogate for action we are invoked to consume the symbols of action (106).

In other words, the commodity logic of contemporary advertising discourages people from acting to change social inequality; these days, consumers buy t-shirts that feature the red star of communism, as seen on western fashion runways, rather than organize for revolutionary struggle (Marasco).

In our culture, these hegemonic ideas and practices are offered especially to young adults and college students. Young adult students enter college already steeped in the ideology that style indicates identity and that the acquisition of material goods is the highest goal to which they should aspire. As students report that advertisements that address product quality (i.e., use value) are distant memories, hazy images from their early childhoods – in other words, given that my students only know exchange value, that they consider the equation of image and brand to be normal, I want them to consider the ways that these exchange values are set up through the semiotics of advertisements that are specifically directed at them. They are savvy at unlocking the media’s techniques of persuasion and at using them to different ends. For this purpose, we study the techniques and texts of the group Adbusters. The Adbusters magazine and website feature conceptual and graphic critiques of contemporary advertising. Students are required to explore the [adbusters.org](http://adbusters.org) Web site and to pay close attention to the design of the fake advertisements highlighted on this site in the “spoof ads,” “uncommercials,” and “culture jammers’ gallery” links. For example, one Adbusters creation employs the formal conventions of the Calvin Klein advertisements for Obsession cologne, but juxtaposes the product title and slogan “Obsession” and the beige and white imagery of the original ads with an image of a young woman leaning over a toilet. This image is simultaneously familiar and shocking, evoking the all-too-common problem of eating disorders amongst young adult women in industrialized countries and at the same time commenting upon the way that advertising and hyper-consumption contribute to distorted self-images and “obsession”-based diseases such as bulimia.

In this second assignment, students are asked to combine the critical insights of Robert Goldman and Stephen Papson’s book on contemporary advertising practices, *Sign Wars*, with the creative and conceptual designs of Adbusters. This assignment is also showcased on the Web, as the medium’s capability for displaying images comes in handy. As Sut Jhally documents, the design of advertising texts has changed. Jhally notes that advertisements of the twentieth century have undergone “two significant parallel developments”: “the shift from explicit statements of value to implicit values and lifestyle images” and “a decline in textual material with a correlative increase in ‘visual-

ized images of well-being” (22). This increased visualization lends itself well to an examination in an image-rich format such as hypertext.

This advertisement analysis assignment involves first a deconstruction of an advertisement’s ideology and, second, a reworking of the ad in the style of *Adbusters*. Students are asked to choose magazine advertisements that target college-aged readers. They describe the ad’s textual and ideological strategies. Their deconstructions investigate how their advertisement’s ideology both opens up progressive possibility and recuperates it at the same time. They critique the stereotypes promoted in their ad and also refute the stereotypes by drawing upon personal experience (and that of their college student friends). Finally, they produce some new version of their advertisement, one that provides an indirect and aesthetic critique that supplements their more straightforward deconstruction. Their insights in both aspects of this assignment are always quite impressive.

Many advertisements directed at college students rely upon the stereotype of the party-crazed, nightlife-hungry college student. Student Tim Oates deconstructs the stereotypical logic of his Balance Bar advertisement whose bold, large caption says, “The Energy for an All-Night Rave without the Embarrassing Jail Time for Possession.” As Tim notes, this ad presumes that students love raves, do illegal drugs, and risk being put in jail when they enjoy such activities. Tim’s reworked advertisement changes the product from a Balance Bar to a bag of crack; the caption now reads “The False Energy for an All-Night Rave without the Troublesome Money in Your Wallet.” His reconfigured ad spits in the face of the original ad’s designers, mocking the way that they use the logic of selling illegal drugs to appeal to a young adult consumer to entice her to buy their energy bar. The advertisement analyzed by student Jennifer Beck similarly uses the glamour of club culture to attract a college-aged viewer. The advertisement for Dolce & Gabbana cologne depicts an image of a scantily clad young woman and man dancing, sweat pouring down their bodies. Jennifer analyzes the sexism, heterosexism, and other ideological strategies of the advertisement. Her reworked ad cuts through the idealized romanticization of casual sex promoted in the original advertisement; over the image of the two dancers, Jennifer has pasted text which reads, “According to the World Health Center 100 million acts of sexual intercourse occur each day. Do you really think that either of these models needs this perfume to help them out? Of course not, but you can still waste your money trying to emulate them.”

As seen in these examples, students are often especially skilled in their reconfiguring of advertisements. They take the logic of advertisements, which involves the transfer of meaning from one sign system to another in a decontextualized fashion (Goldman and Papson 15–17; 24), and turn it on its head. To underscore to students the violence enacted by these slippery transfers of signs, I show students the documentary film, *In Whose Honor: American Indian Mascots in Sports* (Jay Rosenstein, 1996). The documentary is a useful catalyst for a discussion of the way that stereotypes are embedded in our cultural symbols and are centrally related to economic concerns such as the drive for profits. Students understand that the conflict between American

Indian activists, who view the sports symbols that feature Indians as oppressive, and university students and administrators, who view these symbols as harmless and “respectful,” as more than a difference in perspective. The latter groups of people do not acknowledge what the Indians contend: namely, that the taking of spiritual symbols and practices from their sacred, traditional contexts does violence to Indians in a deep way. In a similar fashion, the stereotypes about college students are pervasive in youth-directed ads, and students are often incensed by the blatant and obnoxious fashion in which they are objectified in these texts. In both cases, oppressive imagery is used to commodify experience and to help increase profits for the companies that market commodities that are seen to represent and to enhance a specific experience, i.e., the attendance of sporting events and life at college.

In the spirit of the Guerrilla Girls (whose images are relays for our final projects), students incorporate hard-hitting statistics into their ad analysis hypertexts. Often, encouraged by me to consider class in terms of labor, production, and profits, students cite information about a company’s profit margins and/or labor practices, in addition to pointing out the false promises promoted in the image-brand relationship that implies how the product will affect the life of the intended viewer of the ad. For example, student Amanda Norley analyzes an advertisement for Pringles’ Potato Chips. In addition to deconstructing the photograph and text of the ad, Amanda provides an asterisked “Pringles’ Ad Fact”: “With more than 3.5 billion U.S. dollars in its annual budget, Proctor & Gamble (the maker of Pringles) is the biggest advertiser on the planet.” Another link informs us about the dangers of Olestra, the primary ingredient included in Pringles’ “fat-free” chips, including its potential to cause cancer.

Stuart Ewen notes that “commodified symbols of the good life” lead to a “tightening snare of credit and debt,” a world in which “all connection to society, or to social responsibility, is forsworn in favor of individual acquisition and display” (70). An increasingly prevalent development in what David Harvey terms the “regime of flexible accumulation” has been the rise in consumer debt – the ever-increasing encouragement to spend and consume in order to offset potential capitalist overproduction. In this context, credit card advertisements, as I mentioned previously, are ubiquitous in arenas both textual and physical that college students frequently visit, so it is not surprising that a number of students choose to deconstruct advertisements that offer credit cards. Student Katie Edwards, for instance, analyzes an advertisement for the CapitalOne Buxx credit card that features an image of a smiling, blond, young adult woman, and the caption, “TELL SANTA: ‘All I want for Christmas is a card.’” The ad continues, explaining to the parent(s) it addresses that the credit card is controlled through a parent’s bank account but available to students. Katie notes how the advertisement relies upon the rhetoric of pseudoindividualism and attempts to lure college student viewers to persuade their parents to get this card for them. Katie recontextualizes the ad’s ideology by placing a large block of text over the entire ad in her reworked version that

says, “Nearly one-fifth of students that carry a credit card have accumulated \$10,000 in debt.” This shocking statistic jolts the viewer from her attraction to the jocular tone and breezy, conversational style of the original ad and informs the viewer about the economic realities behind student credit card use.

## THE RESEARCH PAPER

In this experimental class that provides such experientially focused assignments, we do not neglect the critical-conceptual level of thinking. Rather, we integrate critique, particularly in the final activist hypertext projects, with other ways of understanding (emotional, unconscious, associative). In researching and writing their papers, students become investigative reporters of a sort, a useful stance and experience for activist efforts of any kind. They uncover pertinent empirical information, which they will later interweave with their personal experiences and other impressionistic writings in their hypertexts. For example, student Dara Moreno, whose group project is focused on parking at the University of Florida, discovered that our institution makes over \$1 million in parking tickets a year – over \$600,000 of which is cleared as profit. Statistics such as these will help support the argumentative aspect of her group’s hypertext.

The particular research paper assignment that I give involves students writing for a fictitious academic journal called *The Journal of Media Studies*. The JMS has asked them to write an article that compares and contrasts “mainstream” and “alternative” media coverage of their topic related to higher education. I work to counter the more liberal version of cultural studies which operates through the combination of presenting cultural texts and teaching students how to “deconstruct” them immanently, or through setting side by side different readings as so many different choices in a consumerist model.<sup>3</sup> In these types of cultural studies teaching, so popular on this side of the Atlantic especially, teachers neglect to point out the implications of different readings. The position that Hennessy articulates offers a useful way out of this dematerialized approach. It is important to get students to think through the differences in different ways of reading, in terms of the consequences of the way that needs are met or not met. In order to implement this pedagogical strategy, again, we must have a Marxist sense of class. I tell students that in order to assess the degree to which the media sources they investigate are “mainstream” or “alternative,” “liberal,” “conservative,” or “radical,” they should ask: What are the assumptions of this text? Whose needs are being promoted? Who will benefit and who will be hurt if the policies promoted by this text and its ideology are implemented? The research papers provide students with practice in thinking critically, a skill I never want to neglect to nurture, even while I believe the electronic environment provides a space for us to indulge in the production of other kinds of knowledges in politically salient ways, too.

## HYPertexts

I lead students in an experiment in inventing a materialist type of electronic writing, one that combines postmodern deconstructive strategies with a Marxist consideration of conditions of production and the place of education in evolving divisions of labor. In proposing this synthesis of postmodernism and Marxism, I work to avoid the blind spots of some orthodox versions of these theoretical positions. Linda Hutcheon explains that the postmodern study of representations is “an exploration of the way in which narratives and images structure how we see ourselves” (7). Yet postmodernism often ignores the economic dimension of experience, just as Marxism has struggled to theorize adequately the role of subjectivity in perpetuating capitalism. Jameson’s concept of “cognitive maps” is useful to overcome these theoretical gaps; a “cognitive map” is “that mental map of the social and global totality we all carry around in our heads in variously garbled forms” (“Cognitive Mapping,” 353). Stuart Moulthrop believes that we can use hypertexts to create cognitive maps to “begin to teach ourselves where we stand in the networks of transnational power” (par. 38). He points out that such an endeavor will involve

reading and reworking the hegemonic messages of the mass media, such as the news. We require not only a sensitivity to the complex textuality of power but an ability to intercept and manipulate that text – an advanced creative paranoia. This must ultimately be a human skill, independent of technological “utterance”; but the secondary literacy fostered by hypertext could help us at least to begin the enormous task of drawing our own cognitive maps. (par. 38)

Moulthrop explains that this “secondary literacy” that hypertext enables is a return to print – in another form, an awareness of “the way texts-below-the-texts constitute another order behind the visible” (par. 36). I believe that such secondary literacy is promoted when students are the creators of their own hypertexts, especially when these hypertexts centrally feature an investigation of dominant ideology and its subjective internalization. In other words, we might think of the “cognitive maps” that hypertext helps us make as “another order behind the visible,” too. The activist hypertext projects require students to deconstruct ideological messages in dominant texts about higher education; such texts include entertainment narratives about the lives of college students (films such as *Higher Learning* and television shows such as *Beverly Hills 90210*, *Felicity*, and *The Real World*); advertisements directed at college-aged young adults; and news stories and articles about the changes in the structure of higher education at the turn of the twentieth century. I have found that focusing the students’ research and hypertexts on the arena of higher education makes it much easier for them to make connections among their own experiences and struggles, the ideological messages of the mass media, and the economic exploitation that undergirds the now overtly corpora-

tized university system. These are the kinds of “cognitive maps” that I hope to see students uncover through the processes of research and hypertextual production.

## POSTMODERNISM AND ACTIVISM

How do our activist hypertexts draw upon the conventions of postmodernism without becoming incapacitated politically? We have to reinvest postmodern theory and artistic practice with its original subversive edge. Linda Hutcheon describes the “mode” of postmodern texts as “complicitous critique” (2); what distinguishes the consciousness of postmodernism from the challenges to authority issued by the activist groups in the social movements of the 1960s is postmodernism’s acknowledgment of its own complicity with structures of power (10). Moreover, according to Hutcheon, the postmodern position is less oppositional and less idealistic than the predominant perspective in the 1960s (10). Hutcheon notes that “postmodernism is . . . doubly ambivalent, doubly encoded as both complicity and critique, so that it can be (and has been) recuperated by both the left and the right, each ignoring half of that double coding” (168). I wonder: can’t we acknowledge complicity with an oppressive social structure and at the same time still be quite oppositional towards that same structure? I resist the legacy of a more cynical postmodernism, one that views the “idealism” and “oppositional consciousness” of the 1960s as naive and as ultimately ineffective. Why not add the understanding of complicity rather than replace opposition in our activist efforts? I approach hypertext design and pedagogy with the idea of recovering this “double coding” that Hutcheon documents as integral to a politicized postmodernism. I encourage in the work of my students and me a simultaneous questioning of the dominant institutional power structures of the capitalist system and of the way that one is complicit with this same system. Holding critique and self-examination in tension is a productive way to illuminate the contradictions within the system as well as the contradictions within which we all live on a daily basis. Such an endeavor requires that we move beyond a postmodern view that has given up on agency – a view that understands activism as incongruent with the acknowledgment that subjectivity is socially constructed. Hypertext as a form enables these kinds of simultaneous investigations and the revelation of (often unresolved) contradictions.

Towards this end, I draw upon what Teresa Ebert calls “resistance postmodernism” in the way I design my courses and hypertext projects. Ebert laments the way that the postmodernism that has been embraced by the academy is typically a ludic one that “dematerializes” the sign (175) and that equates subjectivity with a Foucauldian idea of “the body” (234). Recognizing this ludic tendency within the U.S. academic left, Hennessy calls for us to reconnect “culture” with “capital.” This effort will require us to theorize about the way that subjective experience and identity are related to systemic dynamics.

## **HYPertext AND “CONSENT”**

Inspired by Ulmer’s description of the process of writing chorographically in *Heuristics: The Logic of Invention*, I help students come to understand the ways that their own thinking and beliefs are shaped from outside of them, and this understanding comes through the process of creating their activist hypertexts. As Ulmer explains, what guides the research of the creator of such a text

is the desire to discover this place or chora of my own premises, the diegesis within which I have been thinking, presuming, the setting that has gone without saying but that has provided the logic of all my work. I want to write the diegesis within which my own grounding presuppositions might come into appearance. Then I will be able to write judgment rather than only feel it or think it. (49)

Ulmer recognizes that one’s premises are, in this sense, socially formed, and that we need a new way of writing to help get at this socially grounded constraint on our way of viewing and experiencing the world. Ulmer’s “premises” and Jameson’s “cognitive maps” are elements of the social control by consent that Antonio Gramsci contrasts to social control by coercion. As Gramsci argues, in capitalism, “Coercion has . . . to be ingeniously combined with persuasion and consent” (310). How do we participate in our own oppression and exploitation? Rationally based theories only get us so far in answering this question; we need methods of textual production that help us uncover the role of emotions and intuition in our consent to social control.

Ulmer outlines how we can use electronic technology to invent methods of textual production that involve “the guidance of analysis by intuition,” which, “in contrast to analysis. . . may not be abstracted from the body and emotions” (141). Ulmer reminds us that intuition in this sense is social (141). Yet in bringing emotions and intuition back into the epistemological picture, we need to reconnect them explicitly to the economic realm. While Ulmer’s method is designed to reveal the way that what is “outside” of us is also “inside,” McLaren investigates the causes for the way that “our external and internal worlds seem to have been split apart” (xxv) from a more explicitly materialist perspective, underscoring the relationship between the contemporary configuration of capitalism and dominant emotional states. This understanding is useful to incorporate into my pedagogy, because I want to extend the Ulmerian goal of a method that draws upon intuition by helping my students create texts that contribute to transformations not only in subjectivity, but also in how we think about – and act towards producing – revolutionary social change. McLaren points out that “We live in unhappy times, in the midst of global hegemony based on fraud, when our feelings of unhappiness do not appear to be connected to the depredations of capitalist exploitation occurring within the external world” (xxv). Certainly, I find that my students are generally stressed out and unhappy, and, typically, they do not interpret these feelings and conditions beyond the framework of individualism that views the difficulties of college students as the result

of personal shortcomings and failures. (As a graduate student in a greatly depressed labor market, I can relate to these feelings.) What are we to do with these feelings of despair and the corresponding feelings of fear and shame? The popular, depoliticized postmodern theory that has gained caché in the academy and in the capitalist mass media offer us similarly hollow answers – in McLaren’s words, “Our feelings are attached to the shimmering surface effects of signs and simulations and the dull radiance that illuminates the spectacles of the everyday”(xxv). I create courses and electronic assignments that encourage my students to view their emotions in a less superficial light. Thus drawing upon affective realms neglected by traditional pedagogy and research, we work to produce knowledge that comprises both the conceptual and the emotional/experiential – a task for which hypertext is especially well suited. In discussing how I implement a repoliticized postmodernism through the design of this course’s electronic projects, I will focus upon three of the dominant features of hypertext as a form: the combination of text and images, its linking capability, and its reliance on associative logic.

### **TEXT + IMAGE – JUXTAPOSITION AND THE RECONTEXTUALIZATION OF SIGNS**

Hypertext supports writing with the language of advertising, for example with its combination of text and image – including words, graphics, and visuals, and with its use of color that helps to evoke a sense of “mood.” Many of the activists we study appropriate the graphic conventions of advertising and the mass media. ACT UP, for example, creates thought-provoking collages of text and image in its posters and fliers. Here is one powerful example. In one poster, the image of the staff and serpent, the symbol of the medical profession called a caduceus, is featured below the declaration, “ALL PEOPLE WITH AIDS ARE INNOCENT” (Crimp 54). I discuss with students the connotations of this image: officialness, professionalism, credentialed power, safety, trustworthiness, honor, correct knowledge, and the like. Then we note how these connotations are undercut by the accompanying caption, which indicts the medical establishment for its judgmental and shortsighted response to AIDS. This text exemplifies the textual strategy of Barbara Kruger, as described by Kate Linder: “Seduce, then intercept” (17), which involves the disruption of stereotypes. The seduction comes through appealing to familiar stereotypes; the interception comes through a suspension of “the identification afforded by the gratification of the image” (Linder 29). In other words, viewers are initially drawn into the text by the familiarity of stereotypes, but unlike in mass media texts and images, particularly those of advertising, this identification is not used to encourage consumption, but is instead disrupted through a reworking and commentary on the stereotype(s) presented. We incorporate this Kruger-esque strategy into our hypertextual advertisement analyses, as described above, and into our activist hypertexts as well.

Another primary technique of textual design that we appropriate from activists and progressive artists is the recontextualization of signs. For example, Kruger riffs on the

Cartesian mantra in an image that features a hand holding a placard that reads, “I shop, therefore I am” (Linder 65). The AIDS activist group ACT UP created what Douglas Crimp calls “a Foucauldian twist” on Kruger’s text when they produced stickers and t-shirts with an image of a man’s hand holding a sign saying “I am out, therefore I am” (102–103). For ACT UP, this image serves to “turn [ . . . ] the confession of sexual identity into a declaration of sexual politics” (Crimp 102). Reworking familiar sayings and advertising slogans is one way we entice viewers while communicating more politicized messages at the same time.

Hal Foster contends that complicity is a necessary component for deconstructive texts, arguing that the evocation of viewer complicity is especially crucial for certain feminist artworks: “If this work elicits our desire for an image of woman, truth, certainty, closure, it does so only to draw it out from its conventional captures, (e.g., voyeurism, narcissism, scopophilia, fetishism), to reflect back the (masculine) gaze to the point of self-consciousness” (8). Student Tiffany Tift employs this feminist-inspired seduction based upon stereotypes with its own undoing, in a brilliant recontextualization of a very familiar semiotic landscape: the women’s fashion magazine cover. Tiffany appropriates the conventions and connotations of this medium to implicate the discourse of romance and fashion in larger social trends of sexism; as Tiffany explains, she “created a *Glamour* magazine cover that ‘glamorized’ rape” (2). Simultaneously, Tiffany reveals and critiques the dominant responses to rape in our culture (including rape on college campuses, the subject of her hypertext), such as the “What was she wearing?” angle. Her cover seduces the reader with its typical-looking headlines and layout, the magazine title boldly printed across the top of the page, and a large picture of a scantily-clad female covering the background. The headlines look typical, but the content “intercepts” the reader’s initial comfort at seeing the familiar form:

Ask Yourself This: Do You Look Like a Victim Yet?

—How to Meet or Make Your Man the Rapist of Your Steamiest Dreams

RAPErelationships

—Help Fix Your Every Couple Catastrophe

Really Special Section

—Get Raped This May!

Question: Did You Ask For It?

—OF COURSE! See Page 69

Pleasuring Himself

—What He’s Thinking When He Rapes You

—(Yes, the Details)

69 Date Rape Looks

—including Rape-Worthy Lips & Violating Hair How-tos

—Bonus! His & Her Rape Poll Results

These headlines change the reader's initial perception of the image, make her question the norms of the discourses of both women's magazines and those surrounding rape, as well as point to the relationship between the media's ideologies and gendered behavior.

Another provocative text that we examine to discern in order to adopt its poetics is an ACT UP graphic that relies on a provocative juxtaposition for its power and was included in the group's indicting parody of *The New York Times*, appropriately titled *The New York Crimes*. In this simulated newspaper advertisement, an image of a gloved hand holding a syringe over a petri dish forms the background. The top of the image includes a quote attributed to Patrick Gage, president of the pharmaceutical company, Hoffman-La Roche, Inc.: "One million [People with AIDS] isn't a market that's exciting. Sure it's growing, but it's not asthma" (95). In case the reader-viewer misses the point, a caption along the bottom of the image reads, "THIS IS TO ENRAGE YOU" (95). This example demonstrates another "instruction" frequently found in the relay texts that we use for the course: find obnoxious quotes made by people in power that reveal the oppressive ideology and exploitative goals of capitalist institutions and let them speak for themselves. For even though ACT UP instructs the viewer as to the emotions the group hopes to arouse, the quote from the drug company executive is not combined with analysis or argument. I tell students what I have discovered through my own study of activist efforts and through my own research into the workings of the cosmetics industry: people invested in the incessant accumulation of profits – people who run corporations and countries – often are unabashed in their articulation of the exploitation at the heart of what they (are paid to) do.

This type of discourse is especially prevalent in what I call "industry literature," the textual sites in which members of an industry speak to each other, rather than to the public *per se*. In the world of cosmetics, these texts include *Inside Cosmetics* and *Cosmetics World News*. In advertising, publications such as *Advertising Age* reveal the goals and strategies of corporations and the advertising agencies that design their campaigns. What are the equivalent texts in higher education? Students are instructed to find out, and to discover how politicians and the people who run colleges and universities frequently lay bare the oppressive logic behind their policies, including their utter disregard for students, viewing them primarily as bodies to be moved in and out of school as soon as possible. Student Brooke Lebel did not have any trouble finding an exemplary quote from the then-president of the University of Florida, John Lombardi, when she produced her hypertext about rape on college campuses. On one page of her hypertext Brooke tells us that Lombardi said to the members of campus NOW, "I have money for a rape center – I just don't want to give it to you" ("Suppression"). The reader is led through this quote to see the oppressive stubbornness that drives our university's attitude towards rape on our campus and is thus incited to share Brooke's anger at this situation.

## LINKING

How can hypertext further the effects of hard-hitting graphics such as those created by ACT UP? For one thing, we take advantage of the unique spatial and temporal qualities of hypertext, particularly its linking ability. We use linking to expand upon Kruger's method, the "Seduce, then intercept" process (Linder 17). The two ACT UP images described above provide useful examples of how linking can help us to reconceptualize this technique. Fragmenting these texts, so that an initial screen shows only the image – of the medical profession or of the petri dish scientist, and then a link jumps to a second screen that contains the same image with the juxtaposed quotes, might lead the viewer to first experience the innocence of interpreting the images stereotypically, and then to have to rethink that interpretation upon viewing the next link.

Creatively using hypertext's flexibility in terms of the order and arrangement of links can also add to the power of our activist hypertexts. Academic arguments, as well as print texts in general, are organized linearly. Contrary to many theorists of hypertexts who argue that hypertext is organized nonlinearly, George Landow points out that the primary characteristic of hypertext arrangement is its capacity for multilinearity (4). I have found that there is something especially dynamic and powerful in the interplay between linearity and multilinearity in hypertext. That is, the creator(s) of the hypertext has more control over the order in which the reader-viewer experiences the "pages" of the hypertext (and also, therefore, over the degree of linearity and/or multilinearity of a particular hypertext or path of a hypertext). At times, this control can be exploited for communicative purposes – for example, in my first media activism course, one of the student groups chose to focus their hypertext project on the intelligence and I.Q. debates, involving views such as those expressed in *The Bell Curve* (Herrnstein). Their research revealed that the debate can essentially be boiled down to two sides: a "heredity" model – "people of color are biologically less intelligent than white people," or an "environmental" model – social factors influence people's intelligence levels, particularly economic factors, and given the correlation between social class and race in this society, the prevalence of lower I.Q.s amongst people of color can be explained by such a social analysis. In an academic paper, the preceding point would be articulated in linear, rational fashion, with an argument for the side being promoted built up through the accumulation of evidence. However, in the creation of their hypertext, these students took advantage of the spatial flexibility of the form, and they visually created the experience of these two sides to give their point of view through a spatial manipulation. They first lead the reader-viewer down a linear path, representing the "heredity" argument, with quotes from proponents of this argument and some historical background information. The reader-viewer has only one choice of a link on each "page," if s/he wants to continue viewing the hypertext. On the first "page," there is a brick in the background. With each succeeding page, the number of bricks increases, until the reader-viewer comes to a screen that depicts an entire brick wall, demonstrating these

students' opinion that the "heredity" view is a literal dead-end. Then another path opens up, the "environmental" view, and here a multilinear arrangement is deployed, in part illustrating the way that this view is much less restrictive and encouraging the reader-viewer's own open-mindedness in relation to the issue at hand.

### **"MULTI-" IS NOT NECESSARILY LIBERATORY**

Joyce proclaims that "the reciprocal power of the electronic book," i.e., hypertext, means that we are "[f]reed from hierarchy to multiplicity" and therefore "might possess properties that we were only once the property of" (96). Not only does this view ignore the structural underpinnings of unequal, hierarchical social positionalities, it also obscures the way that the current formation of capitalism can tolerate, perhaps even needs, "multiplicity" and "reciprocity" of the type that Joyce celebrates.<sup>4</sup> Hennessy reminds us of the specific types of knowledges that the contemporary service-oriented economy desires:

What sort of consciousness is [required of the middle-class fraction of professional-service workers]? What are the qualities demanded of service workers? The answer reveals the degree to which new forms of cognition blur with new affective and physical demands on the laboring body. Service workers are primarily knowledge workers who need to be able to carry out multistep operations, manipulate abstract symbols, command the flow of information, and remain flexible enough to recognize new paradigms. Their work requires new affective and physical responses: habitual mobility, adaptability in every undertaking, the ability to navigate among possible alternatives and spaces, and a cultivation of ambivalence as a structure of feeling. (108)

Hennessy's description contains many of the same elements that are qualities of hypertexts so unequivocally valorized by most electronic pedagogues. We must recognize that capitalism has plenty of room for flexible, fragmented subjectivities, a multiplicity of viewpoints, and multilinear textual forms. As a result, we must integrate systemic Marxist critiques into our strategies of textual production rather than presume that innovative features of hypertext that encourage these developments – fragmentation, multiplicity, and multilinearity – are already liberatory. I advocate and design hypertexts that juxtapose a myriad of voices – personal narratives, institutional voices such as those of schools or the mass media (Althusser's "Institutional State Apparatuses"), unconscious voices such as those revealed in dreams, and critical voices that provide explanatory critiques, including critiques from a Marxist perspective. Heteroglossia in itself is not progressive; we need to move beyond positions of liberal pluralism by including Marxist critiques in our classrooms and electronic productions. It is true that hypertext's fragmented nature, as well as the heterogenous and multilinear possibilities enabled by its linking capacity, can be very useful in the quest to use

hypertext to help us reconnect culture and capital. However, in order to draw on the radical potential of these features of hypertext as a form, we must explicitly keep capital, and the critique of its operations, in the picture at all stages.

### **ASSOCIATIVE LOGIC: COLLAGE, MONTAGE, SIMULATION**

Hypertext is predicated on a logic of association, unlike formal academic writing (particularly in its most revered form, the essay), which requires rationally organized connections that build to a seemingly inevitable argument. As many theorists of hypertext from Vannevar Bush to Ulmer have remarked, hypertext can simulate the way consciousness, or mind, works through a logic of association, mirroring, for example, what Freud calls “dreamwork.” As alluded to earlier, this associative quality of hypertext enables the emotional, experiential, and sensory forms of knowledge which Ulmer associates with the emergent form of writing that can help us “map” the relationship between our personal experiences and identities, and social dynamics. Ideology itself operates through associative logic. Student hypertext producers take advantage of the associative, mind-like qualities of hypertext in three formats (which are often combined): through collage, through montage, and through simulation.

Early on in the semester, I explain three key terms, “juxtaposition,” “collage,” and “montage,” and give students a myriad of examples of artists and activists whose work employs these techniques. Juxtaposition involves combining elements in ways that produce a meaning beyond that of the individual elements. Collages are two-dimensional representations that typically juxtapose text and words. Collages that we study include the ACT UP images described earlier, as well as powerful images produced in the *Decade of Protest* book, which showcases posters, flyers, and other graphics protesting the Vietnam War. The book focuses on the texts produced in the U. S., Vietnam, and Cuba from 1965–1975. In class, we dissect many of the provocative posters in this book, examining a wide range of effective textual strategies. For example, we might discuss the relationship between text (words) and image, beginning with a poster from Cuba that contains no words at all. This print by the Cuban poster artist Fremez juxtaposes two images, one of a Vietnamese woman and one of an American model (75). The color red stands out from the yellow background, as the Vietnamese woman’s nose is bloody, the same shade as the model’s lipstick. As David Kunzle points out in the essay, “Cuba’s Art of Solidarity,” the contrast in this poster “not only subverts the imagery and strategy of much commercial advertising, but also Pop art, which celebrated the icons of corporate culture” (73). Other prints combine text and image in photocollage format, such as the American poster by Jon Hendricks, Irving Petlin, and Frazier Dougherty that shows a photograph of bloodied, dead Vietnamese people of all ages on a dirt road. The text at the top of the rather graphic image reads, “Q. And babies?” and the bottom text answers with, “A. And babies,” echoing the incredulity of the people who saw the images of the atrocities carried out by U. S. soldiers during the war, including the routine killing of

civilians (35). Another powerful (and anonymous) U. S. poster mimics the conventions of print advertising. The text says, "It's the real thing for S.E. Asia" and the centred image is of the mid-section of a Coca-Cola bottle; the label reads "Napalm" in Coca-Cola-style lettering, "16 FL. OZ." beneath it. Beside the cola bottle are the words, "TRADE-MARK ® UNITED STATES." Students cleverly appropriate the techniques of these politicized collages. For example, on one screen student Tiffany Tift imitates an advertisement for a drink special, a form with which college students are very familiar. The "advertisement" says, "buy 2 get 1 free!" and includes an equation: "2X [image of drink] plus [image of Rophynol pill] = RAPE!" This collage graphically echoes the bright colors and cheery typefaces and language of most drink special announcements and at the same time indicts the bar and club culture for its role in college rape situations that so often involve alcohol and drugs, including Rophynol, the "date rape" drug.

The linking quality of hypertext enables another kind of juxtaposition, more closely akin to montage in film. Montage is the technique of combining elements between frames as they linearly progress. The foremost theorist on the art of montage was the filmmaker Sergei Eisenstein, who saw in the technique the possibility of opening up new intellectual and emotional connections previously unexperienced in the spectator. As creators of activist hypertexts, we draw from the kind of montage practices that Eisenstein recommends. For example, in our hypertexts elements are often juxtaposed in "collision" with one another, to borrow a term Eisenstein uses to describe his method of montage in film (37). The form works to produce contrasts, so that previous viewer comfort during scenes (links, frames) that depict dominant ideological positions can be undercut and shown to be complicit. One student group whose activist hypertext focused on the overall financial aspects of the University of Florida chose to foreground the montage potential of hypertext in order to produce contrasting "realities" about the university. They model their hypertext on an opposition: the university's presentation of itself as a "resort" vs. the students' experience of the university as a "factory." The students use the resort metaphor in the part of the hypertext that resembles a promotional brochure put out by the university. In the links of this section, the students use bright colors, including yellow, orange, and blue (the latter two being the school's colors), and imitate the sappy salespitch that the university gives to potential incoming students: "Our elite resort is a privilege to attend," "an outstanding opportunity." The text on the link entitled "Your Own Little Piece of Heaven," announces, "Prepare to be mesmerized by the pampering and ONE-ON-ONE ATTENTION you are about to receive. Welcome to the University of Florida. Its Great to be a Florida Gator!" The glowing descriptions of university life as that of a luxurious spa experience are accompanied by glossy images of weight rooms and swimming pools.

The "alternative" version of the university likens the student experience to that of a factory, where students are just cogs in the larger assembly-line educational process. In this section of the students' hypertext, the color scheme has been modified, featuring blacks and grays, and images of gears and wheels. On one link, the "factory" version of

the university tour asks prospective students, “Are you a special machine? Something we should nurture? Something that deserves special treatment? What can you do for us?” and emphasizes the university’s desire to make profits through “special machines” such as football players. The implicit message of these university imperatives is spelled out in italics below, “Which side do you belong on? Shall we separate you as you separate yourselves? We watch our products as they develop. They are of the same factory, but all appliances are not compatible.” The word “appliances” links to the next page, where we are told about the racism endemic to college campuses, where “Students disperse into ethnic separation, pawns in a massive chess game. They [administrators] manipulate the black bishop to the corner, the latino rook to the side, while they scoop the white king up into their pocket.”

Many student projects involve simulations of other experiences or texts and thereby take advantage of the associative dimension of hypertext in the effort to produce a text that reconnects cultural experience with dynamics of capital. Here are two particularly provocative examples. Jason Lam focused his research paper and activist hypertext on the controversial issue of distance education. Jason’s hypertext is a simulation of an online education experience. The title of his fictitious “school” points to the critical nature of his text from the start, “Alienation On-line University” (or, AOU). The first screen of Jason’s hypertext mimics the tone of the distance education celebrants in our country, with a bulleted list of links:

\*Take courses at your convenience \* Get college credits without leaving home \* Choose your own class hours \* Interact with students just like you \* Interact with a variety of diverse people

In successive links these promises are shown to be hollow. For instance, the link promising interaction forwards the viewer to a page with an image of a lone male student at a computer, accompanied by the caption “Social Interaction.” The “convenience” promised is belied by a lengthy list of very expensive computer equipment required to participate in AOU. Jason particularly targets the desire for profit that drives distance education enterprises such as AOU. One link features a playful yet sickening image of a young man at a computer – with dollar bills sprouting from his neck where his head should be. Jason has also included links to advertisements for corporations such as AT&T and IBM that “sponsor” the school.

Another effective use of the associative capability of hypertext in terms of simulation is the student project on registration. At the time that the hypertext was produced, our university’s registration process was conducted using touch-tone telephones, not using the Web, as is done now. However, this hypertextual simulation not only echoed students’ non-computer registration experiences, but predicted accurately the experience of online registration that students now undergo. The second-person address of this text lends this hypertext intimacy, while its courier font lends it a sense of officialness and credibility. The initial page of this activist hypertext on registration contains a

list of assorted classes from both the sciences and humanities. Many of the listed classes (for example, Poetry Writing) link to a page that tells the reader-viewer, "Sorry, no room. Try again later." Along with the linked pages in which the reader-viewer "student" is denied admittance to any of her chosen classes, there are some successful attempts at registration, too, mostly for classes that are not desired by the student.<sup>5</sup>

After signing up for classes, the viewer is led through the rest of the simulated freshman's initial experience. The "Day 1" page finds our freshman student lost and overwhelmed, "everyone seems just as clueless about the college environment as you do . . . Instructors, students, everybody. When you attended your first composition class, for example, there weren't enough seats for everyone, and no one knew what to do." The huge numbers of students in classes are mentioned, not for the last time in this project. As the "Not Enough Seats" page explains, "Yes, at every college and university in the land, a seating shortage exists. You're lucky to even be enrolled; it's not uncommon for students to try semester after semester to gain entrance to a class that they need to graduate!"

The experience of waiting in excessively long lines for hours – an all-too-common experience at universities of this size, as I can personally attest – is nicely evoked in this hypertext. The "Academic Advisement" page says, "The first thing you notice is that it looks like the people here have been waiting for a while" and contains a photograph of an anthropologist dusting off the bones of a skeleton, with the caption, "Line Forms at Rear." A series of linked pages simulates waiting: "So, you decided to stand in line, huh? Well, since this virtual college experience is supposed to be lifelike in every way, you should now stare at a wall for an hour or two." The shout of the administrator is echoed by the word, "NEXT!" at the bottom of the screen. The following page says, "Nope, not there yet . . ." and "NEXT!" Then, "Nope, you're still not there. You have noticed a few inches of forward progress, though, so don't despair!" and "NEXT!" Finally, "you" are chosen and progress to academic advisement.

Throughout the hypertext, provocative images are combined with clever and revealing text to get across the points of critique and to simulate students' experience. One page says, "Feeling A Little Like A Piece Of Meat?" in large print across the top and features an image of large steaks. The text continues, "So, classes leaving you cold? Do your instructors know you by your name . . . or your social security number? Do you feel left out in the cold, like a face in the crowd, like another mumbling member of a great moving herd of college sheep? Well, you're not alone." The hypertext progresses to "the end" of the "semester." Classes are evaluated; for example, the "Political Science" page reveals,

Well, things have been pretty hectic in Professor Smith's class. Your midterm went well; the class average was a 51% and you got a fifty-three . . . a C+. You've attended every class, but the only thing you've taken away so far is that, according to the United States Government, communism is bad. All five hundred members of the class have been having difficulty adjusting to such a large learning environment, but that's just about the way it goes, right?

This registration hypertext embeds within its simulation a scathing critique of the economics behind the important student issues under examination. The “Large Classes” page reveals that “mega-section” classes are offered because it’s more “cost effective” for universities, “[b]ecause The Administrators can charge the same amount per credit hour, regardless of how much the students learn.” The page called “The Conspiracy: Privatization” describes “privatization” as “the official name for the increasing number of college funding dollars coming from private corporations.” The more descriptive linked pages such as this continue to be accompanied by pages that simulate this “freshman” student’s experience, such as one in which “you,” the viewer-student, receives a letter from your economics professor inviting you to join that major. The balance of creative and critical voices helps to “reveal” the inner workings of the university and to connect these dynamics with student experiences. The “Shifting Funds” page deconstructs the Administration’s argument that “budgets are being cut in every department”: “What they neglect to mention, though, is that the cuts to ‘financially sound’ majors such as management and finance are more than made up for by grants to those programs from private industries and individuals.” The indictment extends to the government, which “offers funds to potentially profitable studies, including chemistry, engineering, and medicine. Investments in programs such as these yield such bountiful returns as improved chemical weapons, ‘smarter’ bombs, and advanced biological toxins.” Here, the student creators of this hypertext underscore the connection between military development and government-subsidized university R&D. Finally, the hypertext announces that Business and Economics are not suffering from funding cuts, noting sarcastically, “Yes, this is where privatization works. Business students can’t help but wonder what everyone else is complaining about.”

## CONCLUSION

Despite my many celebratory moves throughout this piece, I do see some problems with this course and its electronic assignments. One difficulty concerns the nature of activism. The course and the activists we study are easily distinguished from the current trend of “service learning” within the U. S. discipline of rhetoric and composition, a trend which to my mind is disconcertingly reminiscent of volunteerism and philanthropy. Some versions of service learning obscure what Jameson calls “the ideological content of philanthropy, which seeks a nonpolitical and individualizing solution to the exploitation which is structurally inherent in the social system, and whose characteristic motifs of cultural improvement and education are only familiar” (*Political Unconscious* 192). However, service learners are out there participating in community efforts, including activist efforts, and my students are not.<sup>6</sup> I do offer extra credit to students who attend activist events and who write up a two-page response that links their experience to issues and debates that have centrally concerned the class. However, with so much reading, writing, and textual production already required for the course, stu-

dents rarely go to activist talks or meetings. Do any of these students become more involved directly with activist groups and causes after the semester ends, I wonder? I do not know, as I have not tracked any students following the time of the course. Of course, I would like to think that some of them incorporate these ideas in a more substantial way and that some of them later go on to make activism one of their priorities.

Similarly, after teaching several sections of this course, I am still left wondering, Do the hypertexts produce transformations in class consciousness – in the student creators? in the reader-viewers? Students report that taking my class, writing their research papers, and creating these hypertexts causes their thinking to shift profoundly. However, the degree to which they view the world less through bourgeois lenses after these experiences is still unclear. This latter concern is related to the former – without direct contact with and commitment to local activist groups and efforts, how much can student views change during one semester? Nonetheless, I believe that this pedagogical experiment, and the electronic textual design project that is its center, make significant contributions to the efforts to think about how subjective experience, media messages, and socioeconomic structure interrelate, and they particularly move us forward in thinking about the radical potential of the Web and its ever-evolving textual form, hypertext.

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## NOTES

<sup>1</sup>Storyspace is a text-oriented writing software program developed by Jay David Bolter, Michael Joyce, and John B. Smith and marketed by Eastgate Systems (Douglas 175). Storyspace differs from the form of hypertext on the World Wide Web in the following ways:

\*Readers of Storyspace documents can add elements to the text.

\*Storyspace pages are connected in a myriad of ways, producing a textual arrangement that is exceptionally web-like.

\*Storyspace provides a graphic image of the “map” of the space as the reader has so far traversed it.

\*Storyspace “readings” change every time; the linked pages are not arranged in a fixed way/order.

\*Storyspace writings can contain “guardfields” – conditional links that specify that a reader must view a particular page or series of pages before the specified page or series will be available.

There have been some complaints about the density of connections within Storyspace documents, for example, about some hypertext fictions that were created with this software and that contain hundreds, or even 1–2,000, links. For lucid, interesting explications of many such narratives, see Jane Douglas’s *The End of Books*.

My point in this section is not to collapse Storyspace hypertexts and more traditional World Wide Web forms of hypertext into one, but rather to note that the politically problematic celebratory logic that is so common in discussions about the uses of hypertext operates in relation to both types of hypertext. It is also worth noting that Joyce rarely distinguishes between Storyspace and other forms of hypertext in *Of Two Minds: Hypertext Pedagogy and Poetics*; in his book, Storyspace hypertext is the only form of hypertext.

We should also note that many of the elements valorized by teachers in electronic classrooms also replicate the logic of distance education advocates.

<sup>2</sup>The demographics of both student and teacher are important to keep in mind. My current students at the University of Florida, the third-largest institution of higher learning in the U.S. with over 45,000 students, are generally of middle- and working-class backgrounds, predominantly but not exclusively white, with typically bourgeois ideologies and pretensions. They are almost always between 18 and 22 years old. In introductory level courses such as the one under examination here, I have never had what can be considered an “untraditional” student, a student who is older than her mid-twenties, or who is returning to school after raising a family, for example. Different configurations of student demographics would necessarily lead to a rethinking of the design of this course, which is an attempt to reach the students where they are at, so to speak.

Moreover, at this juncture, I am still a student myself – albeit at an institutional level different from that of my students, as a doctoral student in a challenging graduate program. Nonetheless, I do believe that my own student status helps me more successfully teach this course. For one thing, I emphasize the common position of my students and me even while I acknowledge the differences. Also, my experience as a long-time activist in the academic labor movement, locally as co-chair of the organizing committee of our union, Graduate Assistants United (GAU), and nationally as 1998 president of the Graduate Student Caucus of the MLA (GSC-MLA), have served me well in the creation and realization of this course. In fact, one of the incidents pivotal to my understanding of this course and of the relationships between undergraduate students and academic labor occurred during a GAU Speak-Out on the Coalition of Graduate Employees Unions’ National Day of Action in February 1997. I was giving a speech, and many of the students in the first incarnation of the Media Activism course were sitting in the grass of the university plaza listening. When I looked at them, I found myself articulating the position that students’ work is labor and must be articulated as such in activist efforts. It was initially the realiza-

tion that I cared deeply about these students that led me to continue developing this course and helped me to consider making the political economy of higher education its central topical focus.

The point is not that one need be a graduate student to teach a course such as this with success, but rather that the subjective positions of both students and teacher come into play in the very design of the course. Furthermore, electronic pedagogues who occupy other positions than that of graduate student can still emphasize how they, as well as their students, are caught up in an exploitative institutional situation, even if differently affected.

<sup>3</sup>Hennessy drove home this point at a recent conference, the annual conference of our graduate student Marxist Reading Group here at the University of Florida (28–30 March 2001). During the discussion following a panel on pedagogy and cultural studies, Hennessy made it clear that we have to emphasize to students the importance of weighing different readings and their consequences in materialist terms.

<sup>4</sup>When Joyce remarks that “Hypertext links” are “a conversation with structure” (94), he means the structure of the text, not social structure, as I am arguing for here. Although he is particularly interested in overturning traditional ideas of authorship, and in “empowering” student writers through practices of hypertext writing that blurs the boundaries between teacher and student as much as it does those between “author” and “reader,” the problematic nature of the class politics behind his formulations is nonetheless clear. After Joyce asserts that writing with hypertext might enable us to “possess processes that we were only once the property of,” he continues, “The groundskeepers might enjoy the landlord’s (or lady’s) favors, so to speak” (96). There is more than a little irony that this person who has become widely famous for his hypertext fictions and other writings compares himself in this passage to a ‘groundskeeper’—in many circles, he is treated as if he is ‘the lord’ of hypertext. Moreover, the use of the figure of the landlord is ironic in that Joyce is one of the inventors of the Storyspace software program, marketed, like his hypertext fictions, by Eastgate systems. Storyspace is quite expensive (the cost prohibits many university computers and writing programs, including the Networked Writing Environment at the University of Florida, from employing it in their networks). Eastgate, as represented particularly by its president, Mark Bernstein, is a firm advocate of copyright of all things electronic, while there are many left digital artists and writers who vehemently oppose all forms of copyright.

My overall point here is that the metaphors and arguments used to praise hypertext are often politically loaded and, at base, reactionary, belying the privileged position of the scholars and artists who make these arguments and at the same time their own perpetuation of capitalist ideology.

<sup>5</sup>For example, the link for the Beginning Math class says:

What do you know, you got in here, too! Maybe because the class meets at six a.m. Monday through Thursday, but you’ll be OK. Too bad that this class won’t count towards your major, but those are just details, right? As long as you get that Poetry class, everything will still be fine . . .

<sup>6</sup>In fact, just naming the field as “activist” threatens administrators in a way that “service-learning” does not. The department evaluation of the syllabus for the most recent version of this course specified that “activist” elements, such as attending activist events, could not be required, because doing so would make the course “political.” This response exemplifies a current fad within conservative academic circles: the “accusation” that one is “politicizing” the classroom – as if the classroom is not already always political, and as if even the most formalist pedagogical approaches are somehow apolitical.

# Next Generation Student Resources: A Speculative Primer

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*Susan Schreibman*

The World Wide Web is both a source of frustration and richness for educators. It is a source of frustration in that students plagiarize from it more easily than from published texts, while they do not seem to be able to differentiate reliable from unreliable resources. Our own searches often reveal substandard source material, particularly when held in comparison with print publication. Some educators refrain from using the World Wide Web in the classroom because they feel intimidated by their students' seemingly superior ability to navigate virtual space. Yet, it is also a resource of immense richness. Less than a decade after Mosaic, the first Web browser, was launched, users from all over the globe have access to primary materials that were previously the preserve of scholars. They have access to images of unprecedented clarity, entire novels that can be downloaded onto e-readers, and virtual libraries that would make even Alexander jealous. As more information is mediated through the World Wide Web, educators will need to find a balance between the suspicion that every student paper is at least partially cut and pasted from the Web, and the realization that by introducing students to the artifacts of primary research, seventeenth century missionary maps of Latin America, copies of Emily Dickinson's holograph manuscripts, or the first movies produced by Thomas Edison's studio, their appreciation of and engagement with the arts and humanities will deepen. Facilitating access to these objects is but the first step in the engagement process. The second step is to create an environment wherein students can become contributors to this docuverse, shifting the balance of power from being consumers to providers of knowledge. Currently, the practice of utilizing the World Wide Web as a pedagogic tool tends to fall into two broad categories: 1) utilizing the Web as a resource, i.e. integrating previously digitized material into teaching practice, and 2) utilizing Web technology so that students become content providers. Although these practices are interrelated, they are not mutually dependent. This article will explore these two categories, surveying current practice and speculating on how it may change in future.

## THE WORLD WIDE WEB AS A RESOURCE

For many, locating high-quality, reliable primary texts on the Web is rather like embarking on a quest. For me, the quest invariably leads to very specific resources: i.e. electronic editions. These editions tend to be lightly contextualised, can be difficult to navigate, and assume some previous knowledge of the subject. They also tend to use Standard Generalised Markup Language (SGML) or extensible Markup Language (XML) for encoding, rather than Hypertext Markup Language (HTML). This distinction in encoding is often invisible to the user, as SGML and XML texts are 'converted on the fly' to HTML. In other words, the server on which the text resides processes the SGML/XML files into HTML so that by the time the user views them in her browser they look like any other Web document. The distinction, however, is important. Texts and images which contain meta-information encoded in SGML/XML allow for robust searching not possible in HTML. Thus, in The Blake Archive (<http://jefferson.village.virginia.edu/blake>) it is possible to search on all images that contain representations of angels. The search can be further refined to return only those images in which angels appear with 'dark-skinned' children.<sup>1</sup>

Many of these archives are located at and supported by humanities computing centers, such as The Institute for Advanced Technology in the Humanities at University of Virginia (<http://jefferson.village.virginia.edu>), which hosts projects such as Ben Ray's The Salem Witchcraft Trials, 1692–1693: A Thematic Research Archive, Jerome McGann's The Complete Writings and Pictures of Dante Gabriel Rossetti: A Hypermedia Research Archive, and Stephen Railton's Uncle Tom's Cabin and American Culture, or The Humanities Computing Unit at Oxford University which hosts The Wilfred Owen Multimedia Digital Archive (<http://www.hcu.ox.ac.uk/jtap/>). Other humanities archives originate in libraries, such as the University of North Carolina at Chapel Hill's Academic Affairs Library which is host to Documenting the American South (<http://docsouth.unc.edu/>) featuring several thematically-based textual archives, including an extensive collection of slave narratives, as well as The Southern Homefront, 1861–1865, which charts Southern life during the Civil War. Other archives are the result of a consortium of scholars who have created standards for electronic editions in their fields, such as The Model Editions Partnership (<http://mep.cla.sc.edu/>) whose goal is to explore ways of creating electronic editions of historical documents which meet the standards scholars traditionally use in preparing print editions.<sup>2</sup>

Resources such as these are created by a subject area expert or team of experts, often working with graduate students, undergraduates, librarians, and technical staff who have the institutional support necessary for compiling, digitizing, encoding and designing what is, by digital standards, even a small archive. The creation of these electronic editions is not unlike the work scholars have traditionally engaged in when editing for print publication in that typically resources are collected from a number of locations and synthesized into a single text (or in this case collection of texts) with additional value

added through apparatus. The apparatus in a hypertextual environment may differ significantly from that of print, may take the form of metainformation generated through the encoding process itself and/or terminology applied to the text (much like index terms) that facilitates searches not available through plaintext searching. Metainformation may also be applied to images in the form of text header so that they too may be searched through a search engine.<sup>3</sup> The archive may also contain a hybrid structure of apparatus, such as introductory essays and textual and/or contextual notes, in addition to apparatus generated from the encoding itself.

Other rich humanities resources are created by cultural institutions, and have given birth to a new genre of online catalogue. These catalogues digitally reproduce objects from their own holdings while providing access through electronic finding aids. Yet, to simply call these resources online catalogues belies their richness. Projects such as The Library of Congress' American Memory Project (<http://memory.loc.gov/>) serves as a gateway to primary source materials relating to the history and culture of the United States. The wealth of digital material here is staggering: over seven million digital items (including text, still and moving images, and sound files) from more than 100 historical collections.

These types of resources have come to dominate primary source material in the humanities on the World Wide Web. As mentioned previously, they tend to favour primary material that has been rigorously transcribed, encoded and digitised. This, however, has not always been the case. In the early to mid 1990s, many humanities resources were created which did not envision a reading audience. This is due, no doubt, because of the early perception of the Web as a democratized space that could inherently overcome the audience-specificity of print publication. This idea was developed by early hypertext theorists, many of whom were also early contributors to humanities resources on the Web, who believed that that freed from the temporal and special restrictions of the codex, sites could be fashioned which served many masters: that audiences would be self-defining and inherently understand how to navigate the multifarious resources available to them at the click of a mouse. By the end of the decade, however, it became clear that the World Wide Web, like any other space, is one of atomization, that the implicit and unstated ideal audience envisioned by resource creator(s) was self-selected, and sites that not only found – but retained – their audiences were those in which the editors' ideal audience found their flesh and blood equivalents

The problem with many early humanities resources is that they simply port codex norms into the electronic environment. What many creators of digital resources seem to have forgot during the early stages of developing material for the Web is that 'form reshapes content' (Burbules). Or perhaps site editors/designers were seduced into thinking that they were reshaping content by integrating the functionality afforded by that overused and over-praised HTML hyperlink. Some of the earliest and indeed, most successful of these resources have fallen victim to their own success, becoming large, unwieldy structures with a preponderance of hyperlinks which send readers down tenuously associated trails in a vaguely circuitous fashion. Others have become a testa-

ment to a theoretical understanding of what could be achieved in the medium at a specific point in time, such as George Landow's *The Victorian Web* or Stuart Curran's *Frankenstein*; or, the *Modern Prometheus*. Others have caused the medium to be denigrated as a pedagogic tool because of their being hastily conceived, filled with promises of valuable information which never appeared, finding their way into the search engines, and, regretfully, never taken down. Many of these sites are fragmentary, in that freed from the spatial restrictions of the codex, the ambitions for the resource were far beyond what their editors/designers could accomplish. In the early days of hypertext, very few people realized the costs associated with these new editions: freed from print publication costs, editors never reckoned on the enormous time commitment in digitizing objects and designing the space in within which they would be contained. This is not to say that there are no valuable resources conceived and implemented in Hypertext Markup Language. *Romantic Circles* (<http://www.rc.umd.edu/>) or *Columbus and the Age of Discovery* (<http://muweb.millersville.edu/~columbus/>), for example, are cases in point. The *Perseus Digital Library* (<http://www.perseus.tufts.edu/>), one of the oldest and most successful humanities computing projects on the Web, began as a resource that concentrated exclusively on ancient Greek culture, but has since expanded its scope to include Roman and now Renaissance materials. Its goal, like so many humanities computing projects, is not only to make available digitized versions of humanities objects, but to study the possibilities (and limitations) of the electronic medium, as well as to serve as the foundation for work in new cultural domains (Crane).<sup>4</sup>

Being able to locate high-quality, reliable Web resources is not only essential for integration into teaching practice; it is a skill that students need to acquire. Although they may be able to surf with greater ease than many of their teachers, they are far too frequently not discriminating Web users. A case in point was the Junior-level student in my *Survey of American Literature* class who dutifully cited and footnoted the first paragraph of an article from an Internet site that sold research papers. Students need to be educated as to how to use Web resources as a 'means and medium of interaction and work' (Burbules), not simply as an information free-for-all. Rarely do students question the information they receive. Far too frequently they do not attempt to discern if a source is reliable. This is not surprising. Modern systems of education have provided students with a mediated informational environment, through textbooks, through school and public libraries, through reading packs provided by teachers and professors. While it often seems that anyone under the age of 25 inherently knows how to use a mouse, that ability has not provided them with the skills to evaluate the overwhelming amount of information generated by a search engine. Students do not always understand that the characters after the <http://> on their Web browsers is a significant set of signs and not a meaningless string. The Internet will be a life-long learning tool for an increasing number of people worldwide; thus it is incumbent for educators to create a knowledge base so that students can navigate this decentered, destabilized informational resource.

## THE WORLD WIDE WEB AS A TOOL

Much current pedagogic practice utilizes Web-based material as a visually and orally enhanced textbook mirroring the power and pedagogical relationships of the codex. To utilize Web technology to teach students how to become content providers requires a conceptual shift from thinking of the technology as a machine which lends itself to automated and routine actions, such as typing a string into a search engine and clicking on the results, to thinking of the technology as a tool which lends itself to manipulation as an extension of the user (Muffoletto 93). These tools or models or indeed, games, allow students to become collaborators in content creation through a framework established by the technology. Part of the reason the development of Web-based pedagogic spaces has lagged behind the creation of Web-based scholarly resources, is that our thinking is still, by and large, framed by the codex. We think in pages, chapters, and paragraphs. We think in annotation and footnotes. Replicating codex norms in hypertext may not be the best use of a digital space, as Jenny Lyn Bader seems to suggest in the following passage from *The New York Times*:

The reading process mourned by scholars who thought footnotes superior to endnotes – who preferred the process of interruption, mainstream re-evaluation, and jumping around – is the natural process of reading on the Web. Small children who would not normally read books with footnotes until secondary school know their way around bright blue hyperlinks. They learn early that a Web site isn't complete without references to other sites, and that the cooler a site, the cooler its links.

Many collaborative Web spaces have a game-like quality, for example Jerome McGann and Joanna Drucker's *The Ivanhoe Game*, and Neil Fraistat and Steven E. Jones's *MOOzymandias*. *The Ivanhoe Game* was developed 'to use digital tools and space to reflect critically on received aesthetic works (like novels) and on the process of critical reflection that one brings to such works' (McGann, *Ivanhoe*). Players of *The Ivanhoe Game* not only engage with aesthetic works in performative ways, but intervene in them within an environment which puts their 'critical and reflective operations on clear display'. In playing the game, the players in effect, perform the novel, making critical and aesthetic decisions about the text which, in fact, creates a new and evolving narrative. *The Ivanhoe Game* thus becomes, like *MOOzymandias*, a "pedagogical edition' that students build, mutate and inhabit rather than merely read" (Fraistat). The site of *MOOzymandias* is a MOO (Multiuser Object-Oriented Environment), a text-based, virtual reality space that allows multiple users to connect to the same place at the same time. MOOs differ from conventional chat rooms in that they allow users to manipulate and interact with cyber objects in addition to live communication (Multiuser). *MOOzymandias* utilises a MOO space in which the physicality of the Villa Diodati (the Swiss country house rented by Lord Byron in the summer of 1816

where Mary Shelley's *Frankenstein* was conceived) becomes a virtual environment for exploring Romantic literature, including Percy Bysshe Shelley's 'Ozymandias' and Samuel Taylor Coleridge's *Rime of the Ancient Mariner*. In this space students interact with one another, with teachers, as well as with virtual objects to explore the meaning and origins of the primary text(s) around which a particular MOO was developed. Students also have the ability to add to an extant MOO, or indeed, construct their own. Like *The Ivanhoe Game*, MOOzymandias utilises digital game playing to create a performative and critically reflective immersive digital environment which teaches students on the one hand, about literary texts, and print textuality, and on the other, about editing virtual spaces and visual literacy (Fraistat).

Thus, rather than view the World Wide Web as yet another contributing factor in the marginalization of the humanities, it can be seen as having the potential to revitalize teaching of humanities disciplines by challenging existing pedagogic practice. This does not happen through the use of technology alone, but through a shift in thinking from how can new technologies be accommodated into existing pedagogic practice, to how can they stimulate new learning environments (Salomon). The game-like pedagogies of *The Ivanhoe Game* and MOOzymandias are cases in point. They are 'subversive technologies' which have the ability to stimulate pedagogic changes that affect classroom culture (Salomon). Another subversive technology is the integration of the rich array of previously digitized humanities objects freely available on the World Wide Web into learning environments which facilitate the co-construction of knowledge. Many of the originals of these objects are located in archives that only admit scholars, or are in museums too distant to be visited by students. As mentioned in the first part of this article, there are already thousands of humanities artifacts freely available on the Web. These artifacts can be utilized in environments that not only teach students the basic skills of humanities research, but involve them in the excitement of the investigative nature of working with primary sources. By creating a framework which allows students to experiment with the ordering of manuscript drafts of a poem by Emily Dickinson, students can work in an environment which allows them to create a versioned edition. Furthermore, students could be asked to justify their ordering, through a scholarly introduction and apparatus. This type of learning environment introduces students to the skills of textual analysis and well as literary scholarship.<sup>5</sup> Students, in the role of scholarly editors, not only become knowledge providers, but understand the process by which the texts they are asked to read are created.

A learning space might be imagined in which college undergraduates create scholarly editions intended for high school seniors. The undergraduates would be asked to pay specific attention to types of information they would have found useful several years earlier. Their edition might include a critical introduction as well as annotation in the form of text, images and sound. Furthermore, students might conduct usability studies by having several high schools classes utilize their edition. Students of history may be asked to create a multi-media timeline utilizing a template that facilitates integrating text, images, sound and video into a timeline rubric. Students may be asked to construct

a timeline from a particular historical/cultural perspective, then asked to re-imagine that same time period from an alternative perspective, thus teaching students how the production and interpretation of cultural texts can be re-imagined from different cultural, religious, sexual, psychological, economic and/or political perspectives. The design of these learning environments would encourage constructivist learning by stressing the active co-construction of contextualized knowledge as well as Webs of relations amongst its nodes. They also facilitate a shift away from a teacher-centered learning environment to an interactive community of active learners (Salomon).

Why, then, have not more of these active learning environments been created for use with the World Wide Web? One reason may be due to the limitations of Web technology itself. Hypertext Markup Language is an un-malleable encoding language: it composes itself in rigidly hierarchical structures, with the hyperlink the only way out. In recent years, however, Web browsers have become more sophisticated, with a variety of plug-ins that more easily accommodate constructivist learning environments. In addition, as HTML quietly fades into the background of XML (Extensible Markup Language) and its sister technologies, it will be easier for new structured environment models for collaborative learning to be developed. The combination of generic Web-based tools and customized ones, of interaction and co-collaboration, promises an exciting new era of humanities scholarship and education. If studying literature becomes as enjoyable as surfing the Web, or studying history becomes as much fun as playing a virtual reality game; if we can engage students with objects and events hundreds or thousands of years old through the language and games to which they relate, we can revitalize disciplines too many students see as ancillary to their lives in the twenty-first century. And in reimagining our disciplines for our students, we reimagine them for ourselves, creating new hypothesis for reading the past, the present, and the future, generated out of and through the same media.

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## NOTES

<sup>1</sup>The Blake Archive allows searching on text or images. The image search is based on a list of meta-information terms devised by the editors that categorize Blake's work through four main rubrics: Animals, Vegetation, Objects and Structures. The text search allows for plain text and Boolean searches, as well ways of refining those searches by, such as limiting a search to the titles of poems.

<sup>2</sup>For a more comprehensive (although by no means complete) list of humanities projects encoded in SGML, see The Text Encoding Initiative's list of projects, <http://www.tei-c.org/Applications/index.html>

<sup>3</sup>At present, retrieval rates for image-based searching lags far behind that for text-based searching. In recent years, however, image-based retrieval has made great strides. An excellent resource for image based humanities computing is Matthew Kirschenbaum's Looksee at <http://www.glue.umd.edu/~mgk/looksee/>

<sup>4</sup>An excellent source for locating humanities resources on the web is The National Endowment for the Humanities, a gateway featuring 'the best of the humanities on the web'. See <http://edsitement.neh.fed.us>

<sup>5</sup>For a working model of such a software system, see <http://www.mith2.umd.edu/products/ver-mach>

# The Fan's Desire and Technopower

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*Harvey L. Molloy*

## THE FAN'S DESIRE

When I teach my course in Writing and Critical Thinking, I try, like every other teacher of composition, to awaken in my students a sense that they should approach their writing as a valuable exploration of an interest, instead of as an obligatory duty that must be performed in order to complete an assignment. As a model of passionate writing, we review a number of fan sites and Web logs on the Web. The fan site provides a model for online research; some of the most useful resources on the Internet are created and maintained by dedicated enthusiasts. Fan sites are the antithesis of the plagiarized essay or the bought term paper. They are written, produced and maintained out of a love of the subject matter; a love that is none other than the *philos* of philosophy, outside of any hope of immediate gain, and given as gifts to others who share a similar interest. The fan site poses the question of the fan's love: what does it mean to love one's subject? To love, say, the gothic novel, or model trains, or a television show such as *Babylon 5*? How does the fan's love differ from that of the scholar's? Does scholarship kill, replace or mature the fan's love? Is a scholar a disciplined, well-trained fan who belongs to a professional class? In this essay, I want to propose that the fan website may provide a model for student Web research projects, a model that is more suited to the greater public readership afforded by the online publication of student work. My work here is a response to Michael Joyce's observation that "There seems little doubt that technology reshapes the role of scholar. By scholar I mean what we know as the discipline specialist, prefaced here by the parenthetical but increasingly critical prefix, multi. Without going into too much detail here, I want to suggest that the role of the unidisciplinary specialist is in many ways uniquely tied to print culture and thus imperiled in this 'late age of print'" (120). The fan site is the first new form of scholarship to appear on the Web and provides us with a guide for how to transform our students into active researchers.

The fan occupies a marginal position in popular culture and is often represented as a socially inept, anti-social, reclusive figure. Henry Jenkins begins his study of fan literature and culture, *Textual Poachers: Television Fans and Participatory Culture*, with an account of the notorious Saturday Night Live sketch that aired in the early 90s where William Shatner admonishes a groups of “Trekkies”, described by Jenkins’ as “nerdy guys with glasses and rubber ears, ‘I Grok Spock’ T-shirts stretched over their bulging stomachs” (9) to “Get a life, will you people? I mean, I mean, for crying out loud, it’s just a TV show!” (10). Jenkins notes that “If the term ‘fan’ was originally evoked in a somewhat playful fashion and was often used sympathetically by sports writers, it has never fully escaped its earlier connotations of religious and political zealotry, false beliefs, orgiastic excess, possession, and madness, connotations that seem to be at the heart of many of the representations of fans in contemporary discourse” (12). Popular representations of the fan, such as the movie *The Bodyguard*, portray an obsessive fanatic who stalks his idol; proof, for Jenkins, that the fan “constitutes a scandalous category in contemporary culture, one alternately the target of ridicule and anxiety, of dread and desire” (15). Clearly, there are similarities here between popular representations of the teenage male fan and those of the ‘geek’ or ‘nerd.’ Both figures have a passion for a specialized subject they wish to know, and master, to the last detail; both figures, like the many children diagnosed as suffering from Asperger Syndrome who display an unnatural interest in a specialized topic, are scholars at large outside any academy. The geek is nothing more than a pathologized figure of the scholar whose love is spurned by a dominant peer group as unbalanced and unnatural. We have seen the enemy and he is us.

The variety and diversity of fan writing on the Web can be plotted on an axis that spans from declarations of enthusiasm to scholarly research. This axis applies regardless of the literary content of subject being studied. The difference has to do with the effort and time invested in researching minutiae, gathering material from various sources, and evaluating and commenting on source material. At this point, a valuable distinction between the fan and the amateur enthusiast must be made. Certain sciences, in particular astronomy, have always relied on amateurs to make valuable contributions to the field by observing and documenting new objects, such as comets, that can then be checked by others. The fan is different from the amateur in that the fan studies an oeuvre belonging to a particular person (rock musician, actor, author) or a genre or particular topic (e.g. Arthurian literature). The most rudimentary fan site dedicated to a chosen film star consists of a few photos of the beloved star, a list of the films or TV shows she’s appeared in and links to other fan sites. More detailed and established fan sites become authorities in their chosen field and may receive primary material and information from those involved in creating the original subject material. The *Ziggy Stardust Companion*, created and maintained by Michael Harvey, includes an exhausting list of memorabilia about one David Bowie album. The site includes original, previously unreleased photos from the cover shoot, given to Harvey by the photographer Mike Rock, as well interviews with Angie Bowie. There are also brief essays discussing

the treatment of glam rock in Todd Hayes' film *Velvet Goldmine* and an extensive discography and detailed chronology of the Ziggy years. This type of extensive research is similar to the bibliographical research conducted by scholars.

Both scholars and fans write for a small specialized audience comprised of their peers. Their writings are always tokens of membership of belonging to their particular group. All fan sites have, as a matter of course, links to other fan sites. These links are an acknowledgement that the fan knows and acknowledges others in the fan community. Similarly, the use of quotations and an extensive bibliography in a scholarly article is always a token of membership, an acknowledgement of the others who belong to the community of researchers with similar interests to that of the author. Reciprocal linking, where sites link to one another, played a prominent part in the Web's early years when new sites were keen to attract a readership. Web rings, where sites on a related subject are linked to one another by a recognizable logo, address a readership shared with other members of the ring:

This **Middle Ages and  
Renaissance** site managed  
by Christopher Miller.  
Click here to see  
Previous 5 Sites | Skip  
Previous | Previous  
Next | Skip Next | Next 5 Sites  
Random Site | List Sites  
Want to join the ring?  
Get the **info**.

When students write websites, they write for a shared readership. This readership is markedly different from that of the student essay. The student essay has a somewhat disingenuous relationship to its implied reader. The student writes as if for a general, vague reader – as if the paper was going to be published in a college magazine. Yet all the while both student and teacher know that the essay masquerades as a text written for a mass readership that has only really been written for the teacher. Peer review helps to expand the essay's audience but the essay's readership is still, in a sense, an institutional construct. In teaching students to write the traditional essay, we introduce them to a relatively unfamiliar literary genre. As part of their daily lives outside the classroom, students do not generally read, write, or debate academic essays. There is, of course, nothing new or strange in this: the essay has been an unfamiliar genre for many students for many years and expanding the scope of the student's cultural knowledge remains one of the university's key duties. The essay puts the student in a somewhat disadvantaged position: it is written for a single reader yet masquerades as a public document, it is relatively unfamiliar to the student, and, most importantly, the skills needed to write an essay are considered to reside in the domain of the personal and the private.

The fan site suggests a new Web pedagogy based on the student's interest, immediate publication and the imparting of skills that the student can deterritorialize and put to other uses. The new pedagogy is no longer centered on the student paper, but rather on the online website with the immediate audience it offers. The single greatest advantage of Web authoring for student writers is the immediate sense of an audience for their work that the Web provides. Once student papers are placed on the Web and linked to other documents they become part of the course materials to be read by all students. The power of hypertext lies not only in its capacity to accommodate associative thinking but also its entire freeing of the mechanics of publication. Landow reminds us of hypertext's power to facilitate collaborative learning:

Writing in hypertext, a student makes four kinds of contributions to the course materials, each of which, as we shall see, involves collaborative work: (1) reading, in which the reader plays a more important role in shaping the reading text than does the reader of a book, (2) creating links among documents present on the system, (3) creating text documents and linking them to others, and (4) creating graphic documents and linking them to others (Landow 236).

Students experience this change when they write with a prior knowledge that their work will contribute to a larger communal work such as a class Web. As a writing technology, the linking power of hypertext, where any document can be linked to another, fosters a sense amongst student writers of belonging to a group that performs a set of shared practices. Student projects are written to be read and linked to by other students, family, friends, and anyone else who cares to visit the site. My impression is that students appreciate the power of online publication and see work published on the Web as a public document with a continual presence in contrast to the college paper which they view as an artificial, unfamiliar exercise conducted for a solitary reader (the instructor). Many students continue to work on their websites even after they have moved on to other classes because their work is published online.

## **THE NEW WEB PEDAGOGY**

Over the last ten years, the theoretical groundwork for a new Web pedagogy has been laid by George Landow, Greg Ulmer, Jay Bolter, Stuart Moulthrop, and Nancy Kaplan. These authors, although they do not form a cohesive school, all explore a new practice for teaching composition that is suited to the unique capabilities afforded by hypertext. A number of common traits and arguments run through their works. All of these authors in some ways extend McLuhan's theory that changes in media technology bring about fundamental changes in our cognitive processes. We are moving from predominately print culture to a more visually mediated electronic culture in which the image is re-ascendant as a mode of knowledge. The college essay is a pedagogical tool created by

a print culture that is no longer suited to a new visual culture where modes of cognition may be undergoing profound change.

The new Web pedagogy employs images, typography, montage and design arts. The traditional essay remains, within an increasingly visual culture, a 'word only' literary form. Yet with new digital technologies, visual literacy is becoming increasingly important as the printed page is no longer the sole medium for delivering text. Digital technology transforms reading and authorship as pictures, images, videos as well as words and sounds are delivered via the Internet or CD-ROM. Web authors require a diverse number of new skills including the ability to structure information according to the type of experience they wish the user to have of the site (site architecture or experience design), a knowledge of how to incorporate and compose with different media (collage), and skills in graphic design (page layout, typography). I agree with Jay Bolter that "the status of graphics and visual literacy may well be the great open question facing education in the coming years" (12). Given the increased role and power of images, why is visual literacy rarely dealt with in composition programs? I suspect that in many classes the use of graphics, illustrations and design is often viewed by teachers with suspicion, as if to be concerned with the design of the final document – outside of a prescribed format – is to somehow devalue or cheapen the writing itself by making it look attractive. Why then are graphics and illustrations so distrusted in the humanities, much more so than in the sciences? This suspicion is not simply a reaction to the emerging digital technologies that threaten the supremacy of the printed book and the written word but is also a distrust of marketing practices that harness the persuasive, base, irrational and sensual powers of the image. Within the humanities Web authorship forces us as teachers to confront the persuasive image as the banished evil twin of rhetoric. If Bolter is right, as I believe he is, that the status of graphics and visual literacy is the great open question facing education, then we need to ensure that the teaching of visual persuasion and graphic design is not left solely within the domain of marketing departments. Our current attitude towards the image is akin to leaving the teaching of composition solely in the hands of the gurus of copywriting.

Web pedagogy transforms writing into design activity. The aim of such writing is to uncover and explore something we rarely encounter outside of the process of writing and to persuade others that what we have written has value and is seriously playing what Foucault names as 'the games of truth.' Web authoring adds a whole series of design stages into the composition process including design, production, online publication and 'debugging'. In his *How We Write: Writing as Creative Design* Mike Sharples argues:

To view writing as a design activity is a great liberation. Writing can be compared to other creative design activities such as architecture and graphic design. Solving problems is one aspect of this broader process. Activities such as sketching and doodling are not distractions from the task of writing, but are an integral part of it. A writer need no longer be portrayed as a solitary thinker grappling with ideas, but as a member of a

design team situated in a rich environment of colleagues, resources and design tools.  
(10).

My experience is that Web authoring extends the editing and revision phases of composition and expands the potential audience for a student's work. While HTML is a paltry form of hypertext, these features are as significant as hypertext's capacity – as Landow has argued – to encourage students to make connections and to contribute to a shared body of knowledge (226).

Web pedagogy accepts that a Web page can contain several links and the reader's experience of the text depends upon which links are presented – so the experience of reading the text varies for different readers (Bolter 5). Student Web authors need to decide whether the Web document they are writing will contain many links and be a rich hypertext or whether it will be an HTML published version of a print essay that contains few links and develops its argument in a singular linear fashion. Most online essays limit the use of links to a table of contents with links to the relevant sections and links within the text to relevant footnotes. In contrast to the online essay, a rich hypertext needs to employ the rhetorical devices – such as motif, image, myth and personal narrative that are the key devices of Ulmer's 'mystory' – that exploit the associative potential of hypertext. Landow argues that the foundation of hypertext rhetoric is the structured journey in which the reader clicks on a link to travel from one lexia to another. In this journey of numerous departures and arrivals they discover – and help to create – the connections, associations and arguments of the text (124 – 126). Student authors working in hypertext need to consider the types of journeys they wish their reader to experience and to compose their lexias and links accordingly.

Do these multiple journeys then mean that a hypertext is devoid of a thesis? For Bolter "hypertext undermines the rhetorical foundation for the teaching of writing—that is, the need for a unified point of view and a coherent thesis" (10). As teachers, we need to make our students aware of these differences and to provide them with appropriate skills to write and interpret hypertext, we need, as Landow argues (an argument Bolter acknowledges a few sentences after he makes his point about the undermining power of hypertext), to provide them with a rhetoric suited to hypertext, a rhetoric of arrivals and departures. While I agree with Bolter that hypertext has the capacity to shake the very foundations of the writing school, I would add that the extent to which the thesis disappears and becomes lost in the funhouse is a decision to be made by the student author. Any reader of hypertext can tell the difference between a chaotic bundle of random links between unrelated lexias and a carefully orchestrated work that takes the reader through an entertaining and meaningful journey. In hypertext, the thesis is that which governs the content of the lexias and the placement of links. A rich hypertext takes the reader on multiple journeys that explore and develop ideas through association, the juxtaposition of rhetorical modes such as argument and narrative, and recurring motifs. There is no reason why the thesis, as a central idea to be developed and explored, cannot be a guiding principle of a non-fiction hypertext written by a single

author. As a guiding principle, it no longer functions as a signpost explaining the nature and purpose of the singular route the reader will take as she journeys through the text to its conclusion. Rather, the thesis now becomes the pole star that orientates the reader on her multiple journeys as she explores the hypertext's numerous permutations. In a traditional essay, the author develops the thesis for the reader whereas in a rich hypertext the author creates paths that invite the reader to discover the thesis for herself.

Web pedagogy changes many elements of the student/teacher relationship. Michael Joyce reminds us that hypertext positions the teacher as a multidisciplinary rather than unidisciplinary specialist who excels at making connections between diverse fields of knowledge. For Joyce "The teacher as this kind of multidiscipline specialist has the important role of constructing an actual culture with her student" (121). The teacher is now a 'learning manager' who works to create a culture within the classroom and within cyberspace where students talk and learn with each other. As a learning manager, the teacher belongs to a managerial class whose role is always to curb or redirect the student's desire from the instantly gratifying and satisfying. The teacher cajoles or tricks the student to work harder by pointing out another set of refinements or moves that can be achieved. This cajoling or pushing the student is at odds with fan practices where the drive to create the ultimate fan site can sometimes spurn the fan work to compile ever more encyclopedic entries on the chosen subject. Jenkins, who uses de Certeau's notion of reading as poaching, which he defines as "an impertinent raid on the literary preserve that takes away only those things that are useful or pleasurable to the reader" (24) reminds us that pleasure, and only pleasure, remains the goal of fan endeavors. Do we wish our students, as readers, only to take from a text that which they find pleasurable? The answer, here, is surely "yes" but a "yes" that wants to return to the text in order to find further delights (compulsive re-reading and research as a trait of fan activity). When teaching, I include certain fan sites as examples of 'best practice' for online research. After showing a class Fritz Lang's *Metropolis* (1926), I created a link from the class website to Augusto Cesar B. Areal's excellent *Metropolis* website.

## TECHNOPOWER

The new Web pedagogy further recognizes that as a communication technology, the Web is far from neutral, as Swiss and Herman note, the Web as perhaps "the cultural technology of our time, is invested with plenty of utopian and dystopian mythic narratives" (2). Swiss and Herman's point poses a question for us as educators, namely, how are we to situate our pedagogy in regard to these utopian and dystopian narratives? This question is extremely pressing especially for those of us who teach 'Web authoring skills'. What kind of stories should we tell our students about Web authoring, as a writing and design practice, and the Web as a cultural technology? And how should we ask them to reflect on the practice of Web authoring?

My response to these questions is twofold: we need to inform students about the history of hypertext and then discuss technopower as a concept for understanding the dynamics of change on the Web. First, I inform my students about the history of hypertext as a writing technology and introduce them to other hypertext authoring systems such as Storyspace. The first resistance to hypertext's power to challenge established hierarchies of order lies in the limited capabilities of HTML. The promise of hypertext offers more than the ease of publication and access afforded by HTML. Writing back in 1993, Michael Joyce casually refers to the transformative powers of hypertext: "Hypertext readers not only choose the order of what they read but, in doing so, also alter its form by their choices. Also all hypertext systems allow 'readers' to add their own material, or links, to hypertexts" (Joyce 19–20). HTML simply fails to deliver this transformative power. It is a 'dumbed down' hypertext that re-establishes, rather than subverts, the roles of reader and writer. On the cyber-savanna of the early 1990s, an emerging intelligent species of hypertext was overrun by a lesser intelligent, though wildly reproductive, species that soon dominated the entire landscape. Although Storyspace survives, for now HTML has eaten everything and serves as the model by which all other hypertextual systems are judged. This success lies in the Web's sheer broadcasting power. Like a television programme or radio station, you can access a static Web page at any time but you can't readily change it or add to it.

The Web, far less than Moos, discussion forums and chat rooms is primarily monologic in structure rather than dialogic. To be sure, the Web does constitute a totally unprecedented revolution in terms of publishing and broadcasting. Members of Western democracies with sufficient funds can now publish what they wish as much and as often as they want. This failure of the Web, for all of the Webphoria in its early days, has enormous implications for the maintaining of authority and systems of power. As David Tetzlaff reminds us: "The Web comes to us amid a lot of hype about interactivity and user involvement, but compared to the Old Net, it's actually a movement in the other direction. The Old Net was focused on highly interactive forms, with personal involvement on both ends, while the Web is basically a form of electronic publishing that has more in common with traditional mass media forms than it has differences" (100).

The development of fan sites is an example of the transition from Old Net to New, a transition that can be understood by considering the play of technopower in shaping social relations on the Internet. Tim Jordan explains that "When we adopt the perspective of the social in cyberspace, we lose sight of individuals and their powers and bring into focus impersonal powers based on particular technopowers that constitute the very possibility that cyberspace exists in the first place" (113). Technopower is here to be understood as a fusion of technology and values: "Technopower has (in)human values, knowledge and technology welded together in ways that make them inextricable" (110). Fan sites emerge within cyberspace as part of a conflict between Internet managers and users: "The analysis of cyberpower points to cyberspace having been constituted out of conflicts around the rights of individual users, the grassroots, or the

authority of software coders, corporate managers, systems operators and hardware designers, the elite, over the nature of virtual life" (214). Added to this conflict is the tension between fans, corporations and publishing cartels over the use and distribution of primary materials such as images, audio clips, logos and even fictional characters. Fan sites are also often the sites of a contest over who owns mass culture and what fans' rights are as writers and artists once they exceed the role of consumers of cultural products and become active creators or media hackers. In this way fan sites are more directly engaged with the cultures of the Web, by participating and adding to those cultures, than the student paper.

Technopower has both repressive and generative functions: many corporate lawyers are unsure whether all fan sites should be closed down or whether they should be encouraged as they promote an active fan culture. No fan site serves to diminish sales in the way that Napster hits a record company's cash revenue stream. In the conflict between managers and users on the Net, some managers are unsure whether the fan should be considered a pest or welcomed ally. With student Web projects, a similar conflict can often be found between the student author and the university authority (professor or Web editor) as questions of ownership, copyright and research are raised when a student project goes live. An abstract question such as 'who owns culture?' becomes immediately relevant when a student wants to cut, paste and manipulate images of the 'Borg' as part of a student project about cyborgs. The common question 'Is it OK to put an image on your site?' is difficult to answer if you're trying to encourage students to comment on visual culture or to employ images as an integral part of their projects. As well as being linked and networked to other authors and other documents, student projects are enmeshed in technopower as copyright and censorship police question the legitimacy of the student's work.

Why do individuals, community groups, and fans create websites? The answer, I feel, is something rarely addressed by 'formalist' approaches to composition that focus solely on presenting and developing a thesis. (I know because I also use the formalist approach as well as teaching a rhetoric of associations suited to the multilinear capabilities of hypertext.) People create websites because they are writers who want to publish their works to attract a readership. Publishing a student website makes the student consider the network of power relations between author, publisher, lawyer and reader. As publishers we also take on a certain responsibility for the student projects we place online. We are accountable for what we place online and are also responsible for asking our students to reflect on the personal implications for them of publishing their projects. I once asked a pair of talented students at the National University of Singapore to consider whether they had considered the potential audience for their 'cyber hippie manifesto' that initially included numerous images of marijuana plants and leaves. The project, I reminded them, will be out there, hosted on the University's server, for all to see. Singapore has strict, highly conservative laws concerning all recreational drug use. Did those images imply that you were possibly 'advocating drugs'? How did they feel about those images being online? They hadn't considered that the images could have

been interpreted in that way, and had just associated the plants with hippies. In a flash the images were removed and the project was placed on the server. Looking back on the incident now, I probably erred on the side of caution – nor can I delude myself that I hadn't been a little worried about the repercussions for myself of putting those images online if someone had found them objectionable. Was it worth it? In the end, I was glad that I had brought the issue up with the students as it brought home again that Web hosting equals digital publishing, 24–7. You can never determine your readership or assume that they are friendly. But unlike most student papers, you can assume that your paper has a readership. I continue to teach my students HTML because I want them to be writers who publish on the Web as well as students who write papers for a course. Now, why do students write papers?



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# The Florida Research Ensemble and the Prospects for an Electronic Humanities

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*Chris Carter and Gregory Ulmer*

In works such as *Applied Grammatology*, *Teletheory*, and *Heuretics*, Gregory Ulmer has rigorously advocated a shift from critical interpretation of culture to theoretically-charged cultural invention. His articulation of poststructuralist and psychoanalytic theories informs not merely a composite system of textual criticism but an expansive method of artistic creation. Ulmer's theories of invention have vitalized his collaboration with the Florida Research Ensemble, a diverse group of artists and scholars who have worked for over ten years to counter the instrumentalist tendencies of new media. Instead of suggesting immediate ways to fix social problems, the FRE attempts to describe the psychological undercurrents of those problems through experimental text and interactive imagery. The Internet, which represents the FRE's fundamental research area, serves both as the circulator of sublimated cultural drives and the medium for rendering those drives accessible to critical intervention. As a "prosthesis for a cultural unconscious," the Internet according to Ulmer disseminates, even as it helps to construct, the desires of its users. It influences and is influenced by the evolution of cultural ideas as they travel through the "popcycle" – Ulmer's term for the interplay of family, school, entertainment, and labor. Just as the popcycle fosters comforting illusions of personal liberation within free market society, so the Internet reproduces such costly "freedoms" at speeds hitherto unknown. Yet by raising deep-seated psychological drives to conscious awareness through the visual apparatus of the Web, the FRE formulates a potential mode of resistance. In uncovering the "repressed" of net-surfing culture, the Ensemble makes unspoken consumerist values available to deconstructive analysis.

Subjectivity, according to Antonio Negri in his "Twenty Theses on Marx," is itself deconstructive. "Auto-valorization and sabotage are the double figure of one and the same subject," he writes, "or better, they are the two faces of Janus, the gateway to the constitution of the subject" (160). Ulmer, while recognizing the capacity of capital to absorb the work of its critics, implicitly endorses Negri's conjecture by locating the potential for subversion in creative (mis)uses of capital's own advanced technologies of communication. Less militant than Negri but more self-consciously artistic, Ulmer

attempts to undermine practices of domination by first theorizing, and then visually dramatizing, the repressions on which they are structured.

This process of sociopsychological demystification uncovers the possibility of alternative cultural logics. The FRE's highly collaborative version of deconstructive subjectivity suggests new ways of collective being, ways that interlink various worldviews and disciplines in opposition to the laws of profit. The multidisciplinary Ensemble at once illustrates the corruption of the social interior and argues the insufficiency of solely personal change. Social healing requires collective critical action and long-term dedication. Without either the strength and diversity of numbers or the commitment to extended struggle, counterpower will be continually reabsorbed by capital. The work of the FRE is itself threatened by such absorption. Deeply sedimented cultural convictions persist even in the face of exposure, as conservative Web-users work to assimilate all contrary energies to their own sensibilities. Web-based forms of resistance either become commodified themselves or inadvertently prompt increasingly sophisticated technologies of oppression.

Yet the FRE represents the politics of hope, insisting that practices of poststructural psychoanalysis are constructive of new social arrangements as much as critical of existing ones. Insurgencies are often not fully contained by the regimes that spark them, and their dissident excesses suggest the "beyond" of the contemporary political economy. Deconstructive subjectivity, explains Negri, both destroys and reconstructs. As the FRE works to speed the destruction of instrumentalist approaches to technology, it contributes to the reconstruction of an Internet that privileges cooperative invention to commodity transfer. It is through such invention that the FRE aims to foster social health.

As a cultural theorist, Ulmer contends that conventional forms of social communication only partly realize the signification potential of the Internet, and he consequently fashions a counter-language that is at once graphical, parodic, and surreal. That counter-language informs the work of Ulmer's "emerAgency," a virtual consultancy that addresses cultural emergencies as effects of common psychological repressions. Whether considering the crises of Florida tourism in the early 1990s or the alarming number of national traffic fatalities, the emerAgency works less to offer solutions than to describe how the problems themselves suggest the interwoven and unconscious drives toward pleasure and death. Agency members describe such drives by means of image-intensive hypertexts that they collectively publish to the World Wide Web. The websites illustrate and interlink both the social allure and the terrors of established industries. Such sites depict no vacationing freedom without personal danger, no freeway flying without fatal collisions. As Ulmer himself explains, "No attraction without repulsion."

In suggesting that unconscious repulsion intensifies rather than undermines desire, the emerAgency complicates enormously the process of social healing. Problems resist instrumental fixes because we misrecognize the impulses behind them. By more carefully theorizing those impulses, the FRE makes possible not a rapid exorcism but a crit-

ical awareness of the underside of desire. Such awareness can potentially lead to renewed ways of acting and interacting, new social policies, and more sophisticated approaches to the cultural “emergency.” The FRE’s psychoanalytic method supplements but does not displace the instrumentalist tactics of more conventional consultancies. As a “supplement” it reveals the incompleteness of those consultancies. The FRE’s cultural work, enriched by a highly graphical language and intricate theoretical rationale, provides subtlety and indirection where instrumentalism fails.

The cultural faith in quick-fix prescriptions suits capital’s need to efficiently conceal its emergent difficulties. Since the FRE seeks to reconceptualize problems rather than cover them over, it runs counter to dominant forms of consulting while diverging from prevalent modes of Internet communication. The very unorthodoxy of the emerAgency informs an indirect critique of conventional consultancy, while simultaneously opening a space for resistant practices of invention. In Ulmer’s vocabulary, this is the space of “heuretics.” As described in his text of the same name, heuristics

contributes to what Barthes refers to as the “return of the poetician” – one who is concerned with how a work is made. This concern does not stop with analysis or comparative scholarship but conducts such scholarship in preparation for the design of a rhetoric/poetics leading to the production of new work. (4)

In the following interview, Ulmer describes how the FRE’s emerAgency incorporates heuristics into Web-based discourse. His attention to the consumerist tendencies of popular culture helps the FRE form a poetics that is at once oppositional and generative. While matching the anti-instrumentalism of such radical theorists as Herbert Marcuse (*One-Dimensional Man*) and Herbert Schiller (*Culture, Inc.*), Ulmer contributes to the development of a social ethic based on non-hierarchical collaboration, image-based reason, and non-Western alternatives to binary systems of thought. In the interview, as in his work with the FRE, Ulmer evades the strict scheme of problem and solution, opting instead for a serial meditation on the internet’s potential to map the terrain of cultural “psychogeography.”

Carter: Greg, I’d like to discuss your participation in the Florida Research Ensemble’s Web-based “Imaging Florida” project. In an online essay about that project called “Metaphoric Rocks: A Psychogeography of Tourism and Monumentality,” you suggest that the FRE’s advocacy of an inventive, electronically-interactive experience of Florida represents an important alternative to forms of tourism based on mere observation and consumption. Linking the FRE’s promotion of creative and participatory tourism to the Greek philosopher Solon’s notion of travel as theoretical endeavor, you argue for Florida “solonism” as a means of continually re-imagining the state’s cultural identity. Why have you and the FRE chosen the Internet as a forum for posing solonism against more highly commercialized forms of tourism? In light of the Web’s uncommon facilitation of commercialism, the “Imaging Florida” project seems significantly non-conformist both in its deployment of Web technology and its alternative

conception of travel. What might the relationships be between the solonism proffered by “Imaging Florida” and practices of Internet engagement?

Ulmer: What I enjoy about e-mail interviews is their “serial” nature. Your question initiates a certain direction in our dialogue, and my reply will not be complete or final. I will start to answer the question, but in an improvisatory and partial way. I don’t like posts that are too long, even if they will be strung together into an “essay” eventually. The rhythm of the series will be one of more or less shorter installments, following an associative curve that may or may not constitute an “answer.” It may take me several posts to answer one question, nor do you need to wait but should feel free to add further questions or requests for clarification, in a sense attempting to direct or redirect the series.

I will start by providing some context. The Florida Research Ensemble (FRE) originated at the University of Florida in the late 1980s as a group of colleagues with a common interest in electronic media. Current charter members include myself and William Tilson, a professor of Architecture. Also active are Barbara Jo Revelle (a creative photographer) and Will Pappenheimer (videographer), both in the Fine Arts Department. I am the theorist for the group. Simon Penny (now at Carnegie Mellon) was a charter member, and John Craig Freeman was our digital artist until he moved to the University of Massachusetts at Lowell. Not that one must be at/in Florida to work with the FRE. Craig has applied the FRE agenda to his new setting, and we have “affiliations” with colleagues at several locales in the U.S. and abroad.

Forming the FRE grew out of dissatisfaction with the old “reading group” approach to collaboration. I had always participated in one reading group or another, organized around theory. The practice is familiar: an interdisciplinary group of scholars would agree on a list of books, usually works of French theory, and we would meet regularly to discuss and argue. I learned a great deal from these sessions, and if anything they died of their own success, in that the groups tended to become too large. The chief source of dissatisfaction, however, was the homogeneity of the group. There was plenty of disagreement at the meetings, but finally we all were scholar-critics, each working individually on our separate books.

The FRE gave me an opportunity to shift from talk to action, or rather from argument to production, and from individual to collaborative work. Our organizational principle is not that of the reading group but of a “creative team,” with each member bringing a different specialized talent to the table. Each of us knows something about the others’ areas of expertise, enough to facilitate communication. The “ensemble” structure means that there is no hierarchy; we work by consensus. Our meetings are motivated by cooperative work on specific projects addressing a fundamental research problem. The products or fruits of the process (whether undertaken individually or as a group) take many forms: article, interview, exhibition, conference talk, video tape, CD-Rom, website, university course, grant application. The name of our research problem may be defined in a word – the Internet.

An important feature of the Internet is the potential connection it creates across all existing institutions and discourses. There is already a flow or circulation of ideas and

“memes” through the “popcycle” of modern institutions – Family, School, Entertainment, Work (specialized expertise). I might have more to say about this popcycle later. For now the point is that the Internet potentially is a prosthesis for augmenting and raising to self-consciousness this circulation, which in heuritic terms is the key to the creativity of a society. The FRE goal is to develop a practice – a rhetoric – to realize this potential.

One lesson of the avant-garde and experimental arts, especially the lesson of its failures, is that it is not enough to invent new forms. Forms must be part of institutional discourses in order to survive and become functional. The FRE approach to inventing a practice for the Internet, then, is deconstructive: we enter into the process of invention (heuristics) by intervening in an existing institution. Keeping in mind that the Internet itself is an institution (meaning that it has an infrastructure with administrative entities managing sets of laws and codes), we chose consulting as our deconstructive vehicle, since it already is a principal means by which expertise created within the academy is delivered to sites of need in other institutions such as government and business. Our entry into consulting began with a project in my graduate seminar to establish a virtual consultancy – the emerAgency.

The emerAgency is influenced by systems art and conceptual art and their experiments that considered social and cultural processes in aesthetic terms, eliminating the barriers separating art forms from political and ethical realities. The single most important example of such art is the Free International University created by Joseph Beuys, which included among its activities a proposal to the European Union for attempting an artistic solution to the troubles in Ireland. This example of course exists in a context of arts efforts throughout the twentieth century to bring art out of the museum institution and reintegrate it as a practical part of everyday life. The FRE continues this effort, based on our understanding of digital technology, which is that the aesthetic and emotional powers of the arts are fundamental to the “skill sets” of electracry.

I need to go into more detail about how the emerAgency actually works. In the immediate context I’ll just note that the justification for a “virtual” consultancy, related to this systems and conceptual heritage, is that in a post-industrial information economy, we are in a condition of “speed” (Virilio). Ideas circulate freely apart from objects, without grounding necessarily in conventional “firms” and “agencies.” Information on the Internet has gone off the “gold standard” of literate proof. Or to use another historical (grammatological) analogy, we are in a moment similar to the one in the history of the alphabet when it was realized that the letters could circulate without being attached as labels to objects. In short, the Internet is profoundly rhetorical in nature, operating on a multi-valued logic that includes not only the true and the false but also the secret and the lie. Or, to put it another way, the Internet is the prosthesis for that part of thought, mind, intelligence, that has been theorized in terms of the “unconscious.” Poststructural psychoanalysis provides a readymade rhetoric-poetics for an image-based reason.

Carter: Whether favoring the FRE's collaborative invention to traditional reading groups or preferring Joseph Beuys's social activism to museum display, you clearly value the material consequences of theoretical endeavor. The heuristics of the FRE, for example, suggest attempted interventions in the material practices of Florida tourism and in the production of cultural identities. I'm excited by the Ensemble's recommendations that state visitors seek out the abject and forgotten spaces within the landscape, explore those spaces' relationships to larger social failures, and imagine ways to heal both cultural and environmental wounds. Like Beuys, Florida "solonists" (creative philosopher-travelers) can begin to acknowledge previously repressed wounds and treat them with what you have called "the aesthetic and emotional powers of the arts." How might working to transform the psychogeography of Florida through artistic intervention suggest an approach to Web travel? Furthermore, if the Web is the "prosthesis" for a cultural unconscious, what practical bearing might poststructuralist psychoanalysis have on the informatics of resistance?

Ulmer: At the time of the formation of the emerAgency the crisis facing the State of Florida concerned tourism. The State government hired various advertising agencies as consultants to help repair the damage to the image of Florida caused by a string of murdered tourists, not to mention the "vice" image of Miami in general. The challenge for the FRE was to come up (uninvited) with a program that would be an Arts and Letters practical alternative or (more deconstructively) supplement to the conventional propaganda campaigns produced by the paid consultants. "Solonism" was the working term for this alternative: promoting a new dimension of tourism based on the ancient practice of "theoria." Solon served as a "theoros" – one of a group of citizens sent to investigate places and events and report back to the State with an authoritative account. This group or theoria combined the functions of theory and tourism – a "high" or "critical" travel of a kind flexible enough to include everything from the journey of the Magi to find out the meaning of the star in the East to the wandering pilgrimages of Basho to the old shrines and legendary sites of Japan (the haiku in his journals have been compared to tourist snapshots). Solon is the one Plato credits (in *Timaeus*) with bringing back to Athens the story of Atlantis told to him by a priest in Egypt.

The general goal of Solonism is to introduce into conventional tourism certain features that raise awareness of the contribution that entertainment in general and tourism in particular make to the formation of national identity. There is a strong didactic element in many tourist sites as it is, that provide a point of departure for a deconstructive practice. Tourists moreover already use the Internet to gather information and make arrangements, and our program addresses real as well as virtual travel destinations. Indeed, the FRE's first effort as a theoria was to propose to a county economic council an idea for a tourist attraction – a proposal for an electronic monument that could function not only conceptually but that literally was buildable. The planning councils in North Central Florida are always trying to figure out how to attract more visitors to their area, and we proposed that they construct a Florida extension of Mount Rushmore

(a monument initiated as a way to attract tourists to the Black Hills). “Florida Rushmore” proposed to project a digitally generated hologram of a sixty-foot head (the Rushmore scale) into the Devil’s Millhopper sinkhole, a State Geological Preserve near Gainesville, Florida. Using the compositing software developed for finding missing children, and the mystorical design principles that I worked out in *Teletheory* and *Heuretics*, the head displays the “superego” of a different visitor every fifteen minutes. This spectacular display is contextualized by a museum exhibit that records the history of tourism in a way that educates visitors about how a community creates and invents its identity.

Although the economic planning council was in fact intrigued by the proposal, saying that it would probably be a bigger draw than the Dakota version, we did not follow up. A model for the kind of local institutional political work needed to realize such a plan is available in the “wrapping” projects undertaken by Christo. Instead we spun out a series of proposals for an electronic monumentality, using a practice called the MEmorial. The psychogeographical theory informing the consultancy suggests that what Solonism should add to the tourist attraction is the tourist “repulsion.” No attraction without repulsion. Again, conventional tourism already frames as attractions certain kinds of places and events that might be considered “repulsive” – sites of crime and disaster for example. The MEmorial is an Internet asterisk placed on existing monuments and memorials. It may include a “peripheral” – an electronic device located at or near a monument that symbolically extends its functionality. The related Internet site develops this new dimension, which is to extend the acknowledgement of public mourning and commemoration to activities and behaviors of loss and destruction confined to the private sphere of individual one-at-a-time disasters. The first MEmorial addressed traffic fatalities by proposing to place a peripheral at the Vietnam Wall on the Mall in Washington D.C. (or at the scaled-down replica in Pensacola). The peripheral consists of a computer and printer, printing out the names of fatalities as they occur around the nation. The goal is to help visitors understand that the slaughter on the highways is a sacrifice on behalf of a fundamental if abject value. The ideal value of “freedom” is lived abjectly through the private automobile.

It is here that Solonism transforms into consulting. The psychogeographical theory suggests that the empirical, instrumental methods of conventional social and natural sciences are not adequate for comprehending the cultural and personal dimensions of public policy problems. Neither liberal theories of individual responsibility nor Marxist theories of social construction can account fully for the annual sacrifice of forty to fifty thousand dead on the roads. J. G. Ballard’s *Crash* (and the Cronenberg film) open up the further dimension of repulsion/attraction of the death/pleasure principle that informs emerAgency consulting. The instrumentalist object (the wrecked car) neglects the fact (in our theory) that the car or any object in a disaster is also “das Ding,” the Thing of the unconscious, or a fetish, the “little other” (“objet petite a” – Lacan) which is the car-in-me, the metaphysical car if you like, the extimate automobile of the death “drive” (to speak in a Freudian shorthand). To the extent that policy issues include not

only objects of knowledge but also objects of desire, the Arts and Letters disciplines must be involved in any consideration of “solutions.” The MEmorial practice does not claim to have better knowledge than the instrumentalists. Rather, to make a MEmorial is to perform the emerAgency slogan: problems B us: it is to experience and bear witness to the reason why instrumental solutions frequently fail (or why their outcomes are often other than expected). The “pothole” is in me, in every citizen, and it is a pothole that no amount of blacktop can ever fill. Or, to be more optimistic about the educative prospects of Solonism, once there is a collective holistic grasping of the connections between the two kinds of objects, then the society may make new kinds of policies.

Carter: The cultural attraction to the Internet resembles the attraction to the automobile in that both technologies support illusions of unfettered mobility and self-determination. The comfort provided by such illusions exacts a high price: thousands of people die on the highways, while thousands more experience and/or sanction varied forms of exploitation in online spaces. Though the high number of fatal car accidents should perhaps give rise to a critical awareness of our travel habits, we tend to repress the dangers in the interest of preserving the fantasy of personal freedom. On another level, it may be the repressed risks themselves that perpetuate our dependence on automobiles. Might the same be true for the Internet? If the net simultaneously feeds our desires for mobility and for the private indulgence of dangerous fantasies, its doubly powerful appeal perhaps accounts for the cultural tendency to downplay the social inequities pervading internetnetworked discourse. While some online spaces support the re-imagining of social relations, much webwriting serves to intensify the economic, racial, and sexual injustices that pre-existed the Web. As it works to widen the chasm between rich and poor, facilitates anonymous harassment, and further marginalizes groups who have limited electronic access, it magnifies deeply entrenched social problems. Problems B Us. In targeting the Internet as a research subject, does the FRE address its repulsive uses as well its attractive ones? Is every MEmorial, while an inventive look at cultural psychogeography, also a critique of Web-based instrumentalism? Do MEmorials exist that depict the Internet itself as a problem representative of its users?

Ulmer: There are considerable risks and dangers as well as opportunities associated with the emergence of electracy. The grammatological analogy suggests that the institutional and identity formations that organize our society now – the democratic nation-state and individual selfhood – are relative to literacy. Not that they will disappear in electracy, any more than did the apparatus of orality within literacy (religion and the experience of spirit). The new technology is being institutionalized in the practices of Entertainment (within a capitalist economic model), which in turn is producing new experiences of identity and ultimately new kinds of behavior. We have to be able to imagine a society that commits itself to a mode of conduct that fully meets its needs for survival and happiness but that is unrelated to religion or science.

The question for educators is how best to respond to or participate in this paradigm shift. Critique is useful up to a point, as a means of analysis, but is fundamentally limited by its literate nature. As Walter Benjamin noted, it is not what the moving red neon

sign says, but the fiery pool reflected in the pavement. His point was that advertising has replaced criticism as the discourse most effective in an era of an image apparatus. The reflexivity inherent in critique produced the insight that a text-based epistemology has only limited access to the image. The strategy of “resistance” must be considered in the context of the seemingly limitless capacity of capitalist entertainment forms to appropriate and commodify the countercultural and subcultural styles mounted against the society of the spectacle. It is not that “resistance is futile,” but that the Western preference for confrontation may have to be modified by non-Western alternatives, such as the Chinese traditions of indirection and manipulation, developed for non-democratic conditions. W. J. T. Mitchell’s *Picture Theory* is an important book for the way it marks the pictorial turn that has replaced the linguistic turn of twentieth-century theory. Digital imaging and the Internet are to electracy what alphabetic writing and the book/library were to literacy.

Grammatology adds to this pictorial turn the suggestion that the Internet is the prosthesis of the unconscious mind-body. The implication is that the repressed of the bourgeois worldview (the WASP hegemony, the Protestant spirit of capitalism) will return online. Fantasy is becoming self-conscious, an explicit element in our discourse, manifested in the sex and violence of popular culture. The goal of psychoanalysis, stated in the slogan “where Id was shall Ego be,” is being realized at a collective level in the new apparatus. This effect is dangerous of course but also an opportunity for a more sane civilization, depending on how we respond collectively to the possibility of being able to write the unconscious. As Giorgio Agamben says in *The Coming Community*, “advertising and pornography, which escort the commodity to the grave like hired mourners, are the unknowing midwives of this new body of humanity.”

A difference between virtual and actual travel, notable in this context, is that dream-work, the omnipotence of thought, and the laws of magic are to a virtual reality what the laws of physics are to our material reality. It is time to take another look (as the arts were doing throughout the twentieth century) at the pre-scientific practices of oral civilizations as a resource for inventing electracy. That William Gibson, inventor of the term “cyberspace,” turned to Voodoo possession as a metaphor for post-human or cyborg experience of memory (in *Count Zero* and *Mona Lisa Overdrive*) is a sign of things to come. The key point here is that the new forms and practices will be hybrids, expressing a syncretism of the Judeo-Christian- Greco-Roman West with the Afro-Caribbean Black Atlantic. Hence, capitalist “possession” and Voodoo “possession” literalize what for Marx was only a metaphor: the commodity fetish. This literalization of a fetish economy in our rationalized secular lifeworld is similar to the conversion of Rome to Christianity. The consequences are not predictable. That there is reason for optimism, however, may be seen in the Ken Burns’ nineteen-hour documentary on Jazz currently showing on PBS. It remains to be seen what will come of the transfer of wealth to a few African-Americans (among others) currently taking place in the sports and

music branches of Entertainment, equivalent to the moment of the robber barons (the Carnegies and Rockefellers). This perspective suggests that the problem of “access” cuts both ways. “If you don’t shake,” as the title of one of Buddy Bolden’s signature songs goes, “you don’t get no cake.”

This is where heuristics comes in, as an alternative to or supplement of hermeneutics. Heuristics uses theory to invent new practices and forms, as distinct from the hermeneutic use of theory to interpret existing works. The motto of educators, especially those charged with responsibility for literacy, should be the one Basho suggested for poets: the point is not to follow in the footsteps of the masters, but to seek what they sought. What Aristotle and the other inventors of literacy sought were the practices that made the technology of alphabetic writing useful and accessible to their community. Our responsibility is to do the same for electracy. “Accessibility” is a hot political and ethical issue. Again, the grammatological analogy reminds us of historical process. Like the Heraclitean river, the digital apparatus is different each time it is statistically sampled. The historical lesson is that access is relative and takes time, and must take into account the whole apparatus. Thus for example the technology of pen and paper is extremely accessible, but the institutional practices of reading and writing – the methods of logic, research, the essay and the like – are not so accessible. A pen costs less than a dollar but the community invests billions each year in the public schools that teach how to use the pen (with limited success). Meanwhile, over eighty-five percent of the public school districts in America are wired. The question now is the one Nietzsche posed: who will teach the teachers?

We do not yet have the practices of electracy discourse. Or rather, the materials of electracy rhetoric, logic, poetics, are dispersed throughout the history of Arts and Letters forms, but have yet to be integrated into an electracy equivalent of general literacy. A study such as Walter Ong’s *Literacy and Orality* indicates what to expect: electracy people will reason, tell stories, and make images, but they will do so in a way different from oral and literate peoples. The only determined aspect of this difference is the inevitability of the change. One way for educators to influence the change is by inventing and promoting the practices that adapt the purposes of learning (for expertise, citizenship, and self-knowledge) to the new apparatus.

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## Afterword:

# Two Gestures, While Waiting for a Third

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*Victor Vitanza*

“The suggestion has been made—and this is certainly possible—that once humanity has returned to itself, it may no longer have a human form and thus appear as the fulfilled animality of homo sapiens. The suggestion has also been made—and this is equally possible—that with the supremacy of the Absolute’s orientation toward the past, the fulfilled figure of the human may instead have the form of a book that forever gathers and recapitulates in its pages all the historical figures of humanity, such a book being a volume published by Goebhard of Bamberg in April 1807 under the title *Die Phänomenologie des Geistes* (The Phenomenology of Spirit). This—but not only this—is certainly possible.”

—Giorgio Agamben, *Potentialities*, 125–26

This opening dis/orientation points to what I attend to in this essay. But I am not a Hegelian, right or left. But perhaps a post-Hegelian far left of what is Humanistically possible. And therein lies a third, if not a becoming-fourth, silent Gesture.

About “Gesture I,” the reader might think that I am not writing at all on the topic of this volume—un/namely, How technological e.utopianism (The Wild, Wild HyperWest, the “Reign of freedom”) has turned into a technological dystopia (A HyperDisney Property, “the Reign of necessity”). It is hoped, however, that the reader will come to see that “Gesture I” is about the end of the conditions for the possibilities of the binary e.utopia/dystopia. The end of any restricted economy of idealism/materialism, necessity/freedom, or any dyadic or binary system. The ends of the conditions for control. Beings will—whatever beings would—prefer not to control. So as to begin to live fully without resentment.

My hope is that “Gesture II” will be read as an evocation to see (theorize) that the coming community of humanity will have, yet “no longer have[,] a human form.” By

which I mean, “humanity” will have overcome the conditions of human/nonhuman but also overcome a technological posthuman(ism). I am not necessarily writing about cyborgs. I write, instead, about an involutory becoming (cf. Deleuze and Guattari, *Thousand Plateaus* 238–39) without qualities and content (cf. Robert Musil’s *The Man Without Qualities*, wherein wo/man is “in between” subject/object). I write about what Giorgio Agamben refers to as “whatever beings” (cf. Agamben’s *The Man Without Content*, wherein wo/man is aesthetically—and yes, politically—not indifferent, but indifferent). “Gesture II” is about humanity (human beings) having the form of a book that possibly becomes in “Gesture III” the Net, the Web. Perhaps the stupid Web, definitely the enchained or (k)noted Web. Or, what H el ene Cixous refers to as a third body.

## GESTURE I. SOME REWORKINGS OF (THE EVENT OF) HISTORY

My assemblages of theory-fictions are un/namely

- that Capitalism, as a so-called economic system, is on the verge of Being not what we ever thought it was;
- that whatever Capitalism is—as ingenious and as virulent as it has been—it is undergoing a catastrophic metamorphosis;
- that Capitalism is losing any sense of centrality, hence, authority and control in the old or the new.est economies (or even the Net or Web);

(A parenthetical explanation: This change in Capitalism is being brought about by shifts not only in political economies but also in discursive, libidinal, and all economies, which in turn are being brought about by a diminishing of the power of the negative [negation, negativity]. A diminishing, yet augmentation, as in values revalued, as in imminently reversible <sup>1</sup> binaries becoming ternaries +. With Capital, no longer being capable of maintaining the form of a body. I am assuming, therefore—in a telegraphic style here, for time is running short—full discussion of the shifts in economies from

1. a Nation-State Economy [a restricted economy] through
2. a Global (New) Economy [a limnal one] to
3. a General Economy [a “general economy”].

The difference (cum diff erance then differend) between the first and third economies, as G. W. Leibniz, Georges Bataille, Jacques Derrida, Gilles Deleuze, Jean-Fran ois Lyotard, H el ene Cixous, et al., explain, is the difference between lack [scarcity based on the binary] and excess [exuberance unbased by the re/introduction of the radical, oscillating modal shifts that allow for the return of the excluded third + body]. A diminishing of the negative also brings about a general libidinal economy:

1. not one sex [male],
2. nor two sexes [M/F or F/M],
3. but an exuberance of sexes [M, F, Hermaphrodites, Merms, Ferms, etc.]

When the negative loses its control over possibilities and potentialities, the negative *topoi* of species (proper)-genus (common)-differentiae [diaeresis] no longer restrict or sort out in order to hold things in their so-called proper places. Things just flow and mix in general, non-categorically. Remember Lyotard's Marx in *Libidinal Economy*, bisexualized—becoming hermaphrodite—into old man and young woman, with Marx coming to understand his “work cannot form a body, just as capital cannot form a body” [102; Lyotard's emphasis]. Marx is caught in a libidinal flow, writing, not necessarily without end, the book less of libidinal flows, from notes through papers to articles becoming chapters to Capital I, then II, then III and some ever more [96–97].

When a general economy causes all things to flow and mix in perverse ways—i.e., contrary to culture [nomos], causes all things to flow but in a new dis/concert, then, as Hegel says, a “pure culture” or culture as perversion forms, wherein good and bad [or evil] implode and make for no difference, or rather make [for] in-difference [Phenomenology 314–17]. But this flow and mix, these indifferents do not lead to a radical nihilism, or to the notion that human beings can be whatever they wish; rather, as Agamben makes clear in terms of ethics/éthos, “there is in effect something that humans are and have to be, but this something is not an essence nor properly a thing: It is the simple fact of one's own existence as possibility or potentiality” (Community 43; Agamben's emphasis). In parallel fashion, each is “his” own sex and each is the sum of the potential of “one's own existence” or éthos in one's own éthea (or the name that is no name of the place adjacent to common place). In this general flow-scape, human beings step out of Virgil's *Aeneid* and into the threshold of Ovid's book of changes, becoming the form of a sublime book that is not less a book than the world. Baudrillard has written:

Once the orgy was over liberation was seen to have left everyone looking for their generic and sexual identity—and with fewer and fewer answers available, in view of the traffic in signs and the multiplicity of pleasures on offer. That is how we became transsexuals—just as we became transpoliticals: in other words, politically indifferent and undifferentiated beings, androgynous and hermaphroditic . . . transvestites of the political realm. [Transparency, 24–25; cf. Agamben, Community 48–50]).

To recapitulate, before this long parenthesis, I claimed that Capitalism is losing any sense of centrality, hence, authority and control in the old or the newest economies. To continue where I left off: I wrote:

- that human beings have been living (more so dying, yet undergoing metamorphosis, returning to themselves) within the grandest of abstractions, un/namely, that they create the world, create value;

And now (contrary-wise), I write:

- that human beings do make value, but they make it as human beings cannot not do: they make it as creatures rotten with perfection! (see Burke Language, Ch. 1) That is, they establish congregation by way of segregation, or by way of a private, privileged finitude;
- that human beings, though rotten with perfection, are nonetheless led by the imp of the perverse to the third degree . . . that is, they would be the personification of absolute infinity (infinitude);

There is another way to get to this point. less concerning Who or What makes value and How all things move toward valuelessness: Unnamely,

- that use-value has become supplementary to exchange value, contributing to the commodification of our lives, our history;

(Marx writes: “Their [the exchanger’s] movement within society has for them the form of a movement made by things, and these things, far from being under their control, in fact control them” [Capital 1 167–68].) And yet the times, not necessarily restricted by commodification, are a-changing! We relate to each other—will have communicated with each other—as value itself metamorphoses from

1. use-value through
2. exchange-value to
3. sign-value and now to what Baudrillard calls
- +. fractal-[assemblage]-value [viral, radiant] [Transparency of Evil 5].

Let me emphasize, this most radical change is continuing on to sign-value and then fractal-[assemblage]-value. And event.ually [as in a poetics of Ereignis] to what I will call whatever-value. As Baudrillard claims, “we are no longer a part of the drama of alienation; we live in the ecstasy of communication” [“Ecstasy,” 130].)

But Why? Is this Happening? In this theory-fiction? I really do not know Why! Perhaps, un/namely,

- that the nonpositive-affirmative essence of matter is to change [virally, radiantly];
- that therefore “human beings” become event.ually, by way of whatever-value, posthuman [assemblage] matter;
- that the end of man and woman (their dyadic finitude) of meta/physics is upon us, just as the end of philosophy (its finitude) has been upon us;

Perhaps, a better answer to the question Why? is un/namely

- that human beings will event.ually become—when humanity returns to itself—posthuman not because of “technology.” Or specifically because of “cybernetics,” but by way of radically negated (i.e., denegated) possibilities and potentialities;

(Most writing on technology still lingers in a Victorian, Industrial Revolutionary notion of technology. And most, if not all, “critiques” of virtuality, new economy, and vivisystems [as, e.g., put forth against (contra to) such thinkers as Kevin Kelly] recapitulate the same misreadings by way of a Victorian terministic and a Wienerian cybernetics screen. With the end of technologized cybernetics comes now the new task of reThinking—not cybernetics—but Leibnizean modalities of possibilities and potentialities.)

In tiny sums: Negation is withdrawing (see Vitanza, *Negation*). The conditions for centralized authority, therefore, incrementally will have passed away. Binarisms are imploding and then dispersing. To be regathered in trans-radical-multiplicities. (Into Third figures, other than genus and species.) Without recycling (*ricorso*), though oscillating modally back to One and two. After the orgy, after use-value has made the long metamorphosis to whatever-value, there will be no return to “use” or “exchange.” Only “Ecstasy.” In a General economy. The “new man” that Marx had expected—and would still expect—will be, but not as, heretofore, expected. It is not the content or qualities of freedom over necessity (necessity/freedom) in human beings that must be recovered in their so-called authenticity, but it is the discovery of the removal of such (all) things as they are or would be. The “Would-BEs” (the bourgeoisie) are passing. The “Workers” (the proletariat), passing. Into a General economy (*Bataille*). A genus-less (class-less) and, more so, species-less socius (a nonhuman coming community), a whatever-singularities community, will have form(less)ed. Whether or not this community will be

1. a private, privileged finitude or
  2. a nightmarish, absolute infinitude or
  3. a third possibility of an infinite finitude, “a community of finitude” (Nancy, *Inoperative 27*; cf. *Sense 29–33*)
- . . . remains to be seen . . .

## GESTURE II. SOME REPLAYINGS OF (THE EVENT/S OF) THE BODY

“ . . . the hand’s gestures [*Gebärden*] run everywhere through language, in their most perfect purity precisely when man speaks by being silent”

–Martin Heidegger, *Thinking*, 16

Recently, I’ve become interested in the thought of Giorgio Agamben. In particular, his book *The Coming Community*. My interests lie in specifically how to transform subjectivity into its third terms while not denegating it beyond its being an effectual political agent. I am interested in what Agamben calls “whatever beings” (*quodlibet*) or

“whatever singularities.” Whatever beings are paraproductions of radically denegated possibilities and potentialities. Specifically, in triadic terms of

1. Subjects (active) 2. Objects (passive) 3. “whatever beings” or “whatever singularities” (radical passivity [cf. Wall]).

As I have said, whatever beings are not particular (species) nor general (genus); instead, they are a set that is not a set setless [author: re “setless,” is this a typo, or do you mean “a set which is not one”?] of radical singularities that are not in the realm of being but in the relation of being or presencing. But for now, we must ask, How did the advent of whatever beings come about? In dis/order to intuit this question, we need first to understand what attempts to hold subject-object, species-genus, together. We need to understand the schematic-productive process itself, which determines potentiality and, and therefore, what is possible. We must understand negation itself.

Genus-species analytics, or the realm of being: The scheme of production, not unfamiliar to school children, takes this traditional mannerism: The defining (limiting) process, according to Aristotelian logic, is formalized as species (to be) genus (that) differentiae. Example: Aristotle tells us in *Generation of Animals*, “The female is . . . a mutilated male” (737a.27–28). Female is the species; a mutilated male is the genus. And you can guess what is implied in the differentiae! For Aristotle, there is only one sex! Therefore, what we can see in this definition is that what is possible is grossly limited, according to the logic of exaggerated exclusion, to a species in a genus that differs from all other species—but there is no other in that genus. Some thing “is” always something by virtue of what it is not (cf. Burke’s paradox of substance). What such thinking rules out as a possibility is one’s own sex.

For Agamben, this realm of being, defining, limiting, is what concomitantly determines what is possible. Hence, Agamben looks outside of the genus (common), looks at the excess, leftovers, remainders, for the excluded possibilities, potentialities. He looks, in other words, at the wider, more inclusive, beings of possible relations. And in finding what he finds in the excess, he attempts to represent the heretofore unrepresentable by way of a “third figure” that he calls indifferentiae (or “in-difference” towards, an undifferentiation between, species-genuses analytics) or by another he identifies historically as maneries, manare (which translates as “a manner of rising forth,” “originally engendered from its own manner”) that are multiple singularities (Community 27–28). This third figure of indifferentiae (i.e., in-difference against the differentiae) parallels Derrida’s notion of *différance* and Lyotard’s *differend* as well as Nancy’s (k)noting (Sense 103–17).

For Agamben “difference” must be set aside (the realm of being) in dis/order to realize What is potentially possible outside of what goes for the possible (the relation of being). Agamben sees all that does not count or qualify as content, nonetheless, as a paraccontent or parameaning, which is against (not contra to, but alongside) meaning. Again, it is “one’s own” in one’s own *éthea*, the place that is alongside (Community 43). Agamben writes about “the Greek term, for example: para-deigma, that which is shown alongside”:

[T]he proper place of the example is always beside itself, in the empty space in which its undefinable and unforgettable life unfolds . . . It is the Most Common that cuts off any real community. Hence the impotent omnivalence of whatever being. It is neither apathy nor promiscuity nor resignation. These pure singularities communicate only in the empty space of the example, without being tied by any common property, by an identity. They . . . are the exemplars of the coming community.” (Community 10–11)

This paracontent and parameaning, though outside, is refolded or untied and re[k]noted inside. The refolding is perpetually refolded, a perpetual re-placing-into-relation. The question now in terms of resistance is:

How can these third figures be politically effective?

Towards a new rebeginning, or the relation of beings: I want to focus on Agamben’s exemplary “whatever beings” at Tiananmen Square and ask the question of politics in relation to an Informatics of Resistance. I will discuss Ereignis (the event of Appropriation) and its communicative model as it is growing out of “whatever value” into a “whatever politics.” The paramodel is one-cum-a-radical multiPLIcity of gesturing. The model is the WEB enchained, perpetually refolded, re-tied or -[k]noted. (And yet, what I am attending to is not only the Web!) Hence I will be talking about what Agamben refers to as “the new body [or realm] of humanity” (Community 50).

@TiananmenSquare: Agamben asks: “What could be the politics of whatever singularity, that is, of a being whose community is mediated not by any condition of belonging (being red, being Italian, being Communist [i.e., as a species belongs to a genus]) . . . but by belonging itself?” (Community 85). But for “us” this belonging—or any thing called a politics based/less on this belonging—is so difficult to understand since it is a belonging without a predisposition or State, a politics without taking a stand; after all, the very word “understand” itself is a stasis, status, State word. (See Burke 21, 23.) Whatever singularities have no understandings. They do not ask or demand or fight for recognition (Hegel, Kojeve). Among themselves. Or with “us.” Agamben reflects more:

What was most striking about the demonstrations of the Chinese May [Tiananmen] was the relative absence of determinate contents in their demands (democracy and freedom are notions too generic and broadly defined to constitute the real object of a conflict . . .).

The novelty of the coming politics is that it will no longer be a struggle for the conquest or control of the State, but a struggle between the State and the non-State (humanity), an insurmountable disjunction between whatever singularity and the State organization. This has nothing to do with the simple affirmation of the social in opposition to the State that has often found expression in the protest movements of recent years. Whatever singularities cannot form a *societas* because they do not possess any identity to vindicate nor any bond of belonging for which to seek recognition. (85–86)

The key words are “determinate contents,” “demands,” “identity” and “recognition.” The presence of these words and the absence of what they conceptualize in the students signal that the Hegelean and Kojevian principles of subject/object in a struggle unto death for recognition are no longer present—the principles are without quality and content—since the determinate negation has been set aside for the absolute, or abstract, negation (see Hegel, *Phenomenology* 51; Vitanza, *Negation* 82–86), in other words, since subjectivity/objectivity has been set aside for a Third as “humanity” or what Agamben calls whatever singularity or sovereignty. (It can also be said that this being set aside for the absolute, or abstract, negative is parallel to, if slightly different from, the Heideggerian Ereignis [the event of Appropriation], to which I will return.) Agamben continues:

What the State cannot tolerate in any way . . . is that the singularities form a community without affirming an identity, that humans co-belong without any representable condition of belonging (even in the form of a simple presupposition) . . .

A being radically devoid of any representable identity [without references] would be absolutely irrelevant to the State . . . Whatever singularity . . . is the principal enemy of the State. Wherever these singularities peacefully demonstrate their being in common there will be a Tiananmen, and, sooner or later, the tanks will appear. (86–87)

Ereignis (event): In a gesture, Agamben writes: “Whatever . . . is the event of the outside” (*Community* 67; Agamben’s emphasis). This event as it is im/properly named (Ereignis) is the Heideggerian event of the withdrawal of Being (assurance, foundations, of meaning and communication), or what I call the withdrawal of the negative (see Heidegger *On Time*; Vitanza “Hermeneutics”). Agamben explains: “what takes place is simply a movement of concealment without anything being hidden or anything hiding, without anything being veiled or anything veiling—pure self-destining without destiny, simple abandonment of the self to itself” (*Potentialities* 131; Agamben’s emphasis).

But this event is, rather than simply the withdrawal of Being, the event of Appropriation. (Expropriation of self to itself.) What Heidegger sees is the entry of Thinking into the event of the end of withdrawal’s history. Appropriation—as for Heidegger, so for Agamben—is not the realm of Being (of the early *Being and Time* 1926), but the relation of Being (of the later *On Time and Being* 1969). Heidegger writes: “Being [now] means: presencing, letting-be-present: presence” (*On Time* 10). Being—set loose from metaphysics (assurance, foundations), yet ever near it—is as in beings appropriated to each other, or as in beings abiding alongside each other (10–13, 19–24). Or as Nancy keeps insisting, as in beings re(k)noting in relation to each other (*Sense* 103–17).

The event of Appropriation is the moment of possibilities, potentialities. Whatever singularity, Agamben says, is without identity, is neither determinate nor indeterminate (no simple binary); “rather it is [a third alternative] determined only through its rela-

tion . . . to the totality of its possibilities [presencing]” (Potentialities 67). We might say that the event is the moment of the possibility of whatever singularities. This possibility, without the negative of the realm of being, hence is a potentiality comparable to a post-Leibnizean compossibility with various impossibilities and their vicedictions (Theodicy).<sup>2</sup> This “totality” as such can only reside on the outside. The Task is to “Think” of it this way: All of meaning, made by negation, has by way of its various forms in the History of Being/s, finally been emptied outside.

Earlier I said “outside” was owing to defining (making meaning by exclusion). Outside was, still is, the place of waste. Non-meaning. Now, I can say, however, outside is the experience “‘at the door’ . . . ‘at the threshold’” (Community 68). “The outside is not another space that resides beyond a determinate space, but rather, it is the passage, the exteriority that gives it access . . . The threshold is not . . . another thing with respect to the limit; it is, so to [gesture], the experience of the limit itself [i.e., of infinite finitude], the experience of being-within [Appropriation] an outside [Expropriation]. The ek-stasis is the gift that singularity gathers from the empty hands of humanity” (68; my emphasis). The ek-stasis is “multiple common place,” “the proper name of this unrepresentable space . . . the space adjacent [alongside, as an aside]” (25; cf. “chora,” 14).

This communication of the event of Appropriation by way of gesturing with language, or asides, is part of the message-event to be experienced. (I have been, after all, gesturing with asides.) There is no analytic or synthetic language of the event of the outside, the Third! Hence, the body must drift with gesturings. If we keep Agamben as guideless a guide that is not a guide, then we might see the event as a moment of finitude (end, limit, Proper, death, a retreat to *éthos* in its own *éthea*, where one goes to die [yet be reborn?]).

Agamben is rereading Heidegger: “The finite [is] the end of the history of Being” (Potentialities 128–29); it’s the withdrawal of negativity. The tradition of philosophy—with its universe of discourses, its discursive, restricted economies—has reached its end. What remains—as a remainder from which to gesture—is “an untransmissible transmission that transmits nothing but itself” (133). A general.discursive.economy @Outside.BodyWithoutOrgans (in a threshold, the e-passage), of gesturing alongside the former restricted discursive economy in the inside of meaning that is, once again, facing its radical finitude. Agamben writes: “Gesture is always the gesture of being at a loss in language; it is always a ‘gag’ in the literal sense of the word, which indicates first of all something put in someone’s mouth to keep him from speaking and, then, the actor’s improvisation to make up for an impossibility of speaking” (78). Hence: either to communicate (clearly, analytically) or to not communicate yields a third alternative of to gesture (the gag, asides).

But Agamben tells us that we have even lost our gestures (83), though they reappeared at Tiananmen. The students’ gestures were of a third type, which Agamben refers to as means without ends. The students made no demands. But gestured. With a gesture that belongs to ethics and politics, to the relation of beings (recall Heidegger’s Time and Being). Agamben explains that this third type requires setting aside the

Aristotelian gesture of acting (*agere*) and making (*facere*), and taking up with the (Marcus) Varro.nian gesture of “something being endured and supported” (Means 56–57; cf. Nancy Sense, 103–17). Hence: either ends (justifying means) or means (justifying ends) yields to a third alternative of means without ends, enduring and supporting.

“The new body of humanity”:

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The new body is made up of, as Paul Mann might say “stupid undergrounds”: “Everything is a matter of coding and decoding, a semiocratic delirium, what Bataille calls, in deadly earnestness, parody as copula as the illicit copulation of facts: this = this = this. The chain of evidence is endless, and at every point it adds up to the missing-One” (162; cf., however, Ronell, who warns us of the dangers behind a stupidity of infinity).

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the Net and Web follow the paralogic of . . . WHATEVER! The Web is the easement. The site of in-difference to exclusion.

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WHATEVERs prefer the coming community. In *Be tween!* In the “interworld” (Community 97). In *Limbo* (5–7). Living there, abandoned by God and Satan, Media Generals and State Pedagogues, abandoned beyond good and evil, and with “guilt and justice behind them . . . the life that begins on earth after the last day is simply human [yet whatever] life” (6–7).

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”The world is now and forever [either] necessarily contingent or contingently necessary. Between the not being able to not-be that sanctions the decree of necessity and the being able to not-be that defines fluctuating contingency, the finite world [finitude] suggests a contingency to the second [yet third alternative] power that does not found

any freedom: It is capable of not not-being, it is capable of the irreparable” (Community 40; Agamben’s emphasis. Cf. Nancy’s discussion “we are born free” in Experience 92).

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### NOTES

<sup>1</sup>I am purposely avoiding the use of “immanence” or “immanent,” as in “immanent reversibility,” and instead am calling on “imminent” to avoid the problem of the myth of presence and infinity.

<sup>2</sup>The term “vicediction” is substituted for the term and concept “contradiction.” For Leibniz there are not contradictions, only vicedictions, across impossible worlds.