Unlike Us Reader

SOCIAL MEDIA MONOPOLIES AND THEIR ALTERNATIVES

EDITED BY
GEERT LOVINK AND
MIRIAM RASCH
INC READER #8

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**A WORLD BEYOND FACEBOOK:
INTRODUCTION TO THE
UNLIKE US READER**

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GEERT LOVINK

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Social slogans of the day: 'Das Ich ist nicht zu retten', Ernst Mach – 'I fear the day when the technology overlaps with our humanity. The world will only have a generation of idiots', Albert Einstein – 'I can buy a Ford, Toyota, BMW or Smart car and drive on the same roads and use the same fuel. Everything is interchangeable about them except the key that gets me in and starts the engine. It's a good model for how our communication systems should work, at all levels', Dave Winer – 'Take a position, be an author' – the European concert of networks – 'I am inspired by the internet', Johan Sjerpstra – 'It is a small step from distributed to dispersion…' – 'Neither information nor a drug fix ever gives any happiness when you have it, but will make you miserable when you don't', Michel Serres – 'I am traveling a lot, online'.

Whether or not we are in the midst of yet another internet bubble, we can all agree that social media dominates the use of the internet and smartphones. The emergence of apps and web-based user-to-user services, driven by an explosion of informal dialogues, continuous uploads, and user-generated content, have greatly empowered the rise of 'participatory culture'. At the same time, monopoly power, commercialization, and commodification are on the rise as well, with just a handful of social media platforms dominating the social web. Tensions are increasing with the question of what to make of the influence and impact of 'social media'? Two contradictory processes – both the facilitation of free exchanges and the commercial exploitation of social relationships – seem to lie at the heart of contemporary capitalism: empowerment and control, freedom and paranoia. On the one hand new media create and expand the social spaces through which we interact, play, and even politicize ourselves; on the other hand, in most countries they are owned by literally three or four companies that have phenomenal power to shape the architectures of such interactions. Whereas the hegemonic internet ideology promises open, decentralized systems, why do we, time and again, find ourselves locked into closed, centralized environments? Why are individual users so easily lured into these corporate 'walled gardens'? Do we understand the long-term costs that society will pay for the ease of use and simple interfaces of their beloved 'free' services?

The accelerated growth and scope of Facebook's social space is unheard of. As of late 2012, Facebook is said to have more than one billion active users, ranking in the top three first destination sites on the web, worldwide. Its users willingly deposit a myriad of snippets of their social life and relationships on a site that invests in an accelerated play of exchanging information. On the different platforms, from LinkedIn to Google+, we are all busy befriending, ranking, recommending, retweeting, creating circles, up-

loading photos and videos, and updating our status. Numerous (mobile) applications orchestrate this offer of private moments in a virtual public, seamlessly embedding the online world in the everyday life of users.

Yet, despite its massive user base, the phenomenon of online social networking remains fragile. Just think of the fate of the majority of social networking sites. Who remembers Friendster? The sudden implosion (and careful recovery) of MySpace is unheard of and comes with the parallel demise of Bebo in the UK, Hyves in the Netherlands, and StudiVZ in Germany. The eventual fall of Twitter and Facebook – and Google, for that matter – is only a masterpiece of software away. This means that the 'protocological' future is not stationary but allows space for us to carve out a variety of technopolitical interventions. Instead of repeating the entrepreneurial-startup-transforming-into-corporate-behemoth formula, isn't it time to reinvent the internet as a truly independent public infrastructure that can effectively defend itself against corporate domination and state control? One thing is sure: boredom will set in at some point and then the end of the befriending craze will be in sight. It will be a liberating moment to know that your friends and family will have to come up with new ways to monitor your life. After so many updates your status still hasn't improved and we all feel the urge to waste our time elsewhere.

How to study semi-closed ephemeral spaces? It is one thing to formulate a 'black box' theory[1] to study the algorithmic cultures of such social networking websites. But what happens if the algorithms indeed remain a black box for us, non-geeks? This may happen not only because of the computer science deficiency amongst arts and humanities scholars, we are also running into very real corporate secrets and related patent wars. To a large degree, social media research is still dominated by quantitative and social scientific endeavors that play with APIs and data visualizations.

In the first phase of social media research the social science focus, led by danah boyd, has been on the moral panic around young people, privacy, and identity theft. From the self-representation theories of Erving Goffman's 1959 study to Michael Foucault's *Technologies of the Self,* and graph-based network theory that focuses on influencers and (news)hubs, a range of studies and approaches have become available. What is missing so far is a rigorous discussion of the political economy of these social media monopolies. It remains hard for scholars and experts across the board to get a handle on the money/value flows. What price do we pay for the free use of services such as Facebook and Google?

What we first need to acknowledge is social media's double nature. Dismissing social media as neutral platforms with no power is as implausible as considering social media the bad boys of capitalism. The beauty and depth of social media is that they call for a new understanding of classic dichotomies such as commercial/political, informal networks/public at large, users/producers, artistic/standardized, original/copy, and democratizing/disempowering. Instead of taking these dichotomies as a point of departure, let's scrutinize the social networking logic itself. Even if Twitter and Face-

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1. See, Taina Bucher, *Programmed Sociality: A Software Studies Perspective on Social Networking Sites*, PhD diss., Faculty of Humanities, University of Oslo, 2012.

book were to disappear overnight, befriending, liking, and ranking would only spread further as memes, embedded in software. 'Unfacebooking' each individual user will take a while – unless we bet on the speed of the sudden implosion and believe in the Power of the Meme.

Social media platforms are too big and too fluid to research – not just because of the sheer size of users, heavy traffic, closed databases, and overkill of metadata. The impossibility to reflect on them is also given by their fluid nature, presenting themselves as helpful gatekeepers of temporary personalized information flows. Would we like to freeze dry them? 'A day in the life of Twitter?' What we need to do is develop ways to capture processual flows (which explains our obsession with info visualization and cool statistics). The problem here is not one of mutation of the object, but one of actual disappearance. We may gain from new insights produced by the recently established 'software studies' discipline, but before we have gone through the literature, theorized the field and developed specific critical concepts, written down methodological considerations, and compiled datasets, the object of study has already changed dramatically or even vanished. Research runs the risk of producing nothing more than historical files filled with network assessments and other ethical considerations. In a variation of Heisenberg's uncertainty principle we could say that it is not because we observe it that objects change, but because we research it. But this idealistic notion is unfortunately not the case. The main reason for research futility is our collective obsession with the impact of technology over its architecture. This is also the case with simplified, easy-to-use informal network sites. At first glance social media present themselves as the perfect synthesis of 19th century mass production (in this case of networks) and history in the making (see the 2011 Arab spring). There is surprisingly little 'différance' at work here. In that sense these are not postmodern machines but straightforward modernist products of the 1990s wave of digital globalization turned mass culture.

The massive popularity of social media should not be seen as a 'resurrection' of the social after its death. The online system is not designed to encounter the Other (despite the popularity of online dating sites). We remain amongst 'friends'. The faith of social media (if there is any) is rather to design and run defensive systems that can recreate community feelings of a lost tribe: computer generated informality. The social, that once dangerous category of class societies in the process of emancipation, has now gone defensive, facing massive budget cuts, privatizations and the depletion of public resources. The critique of the Situationists is running empty here. In this Society of the Query, Facebook is anything but spectacular. In the closed-off social media sphere the critical apparatus of representation theory only has a limited range. Instead, we need to further radicalize what Jean Baudrillard wrote about the 'death of the social'.[2] The implosion of the social in the media, as he described it, happened 20-30 years before the birth of Facebook. This move away from the messy and potentially dangerous street life of the crowds into the regulated flow of cars cleared urban public space, and made way for post-Fordistic interactivity inside the confined spheres of apartments, cafes, and offices. The renaissance of the fashionable concept 'social' in Web 2.0 was not part of a retromania to revive the 20th century Social Question. There is no class

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2.   Jean Baudrillard, 'The Masses: Implosion of the Social in the Media', *New Literary History* 16.3 (Spring, 1985): 1, www.jstor.org/stable/468841.

struggle here. The very idea of social media is not to return before the Omega Point of History, circumventing Hiroshima and Auschwitz while continuing the Human Story at some other point. In this case the social is produced for no other reason than to extract value. The Social Media Question circles around notions such as aggregation, data mining, and profiling. The algorithmic exploitation of human-machine interaction consciously takes the risk that the dark of the social (mob behavior aiming at system suicide) can be managed.

Considering the wide and ambitious effort that is made here, it seems important to narrow down what precisely is meant with the term 'social media'. Some would go back to the days of early cyberculture and stress the public domain aspect of these 'virtual communities'. This somewhat Catholic term lost its hegemony in the late 90s when startup firms, backed by venture capital and 'silly money' from investment banks and pension funds, flooded the scene. In this Golden Age of Dotcommania the emphasis shifted away from the internet as a public domain towards the image of an electronic shopping mall. Users were no longer seen as global citizens of cyberspace and were instead addressed as customers. This came to a sudden halt in 2000/2001 when the dotcom crash unleashed a global financial crisis. This coincided with the surveillance crackdown after 9/11 that had major implications for internet freedom.

In an effort to reconstitute its dominance in the world IT market, Silicon Valley was forced to re-invent itself and unleash a renaissance movement called Web 2.0. This reincarnation of American entrepreneurial energy put the user in the driver's seat in order to maximize its dominance in the crucial 'mainstreaming' phase of internet culture that was due to the role out of broadband and the arrival of mobile internet. The central slogan of the Web 2.0 era was 'user-generated content', with Google as the main player making profit off this shift away from the production and purchase of paid content towards the exploitation of user data. From blogging to photo sharing and social networking, the idea was to reduce complexity and user freedom in exchange for easy-to-use interfaces, free services without subscription and large database with free content, and user profiles to browse through.

Whereas Web 2.0 ideology stresses the variety of startups through popular news sites from the U.S. west coast such as *TechCrunch* and *Hacker News,* but also *Slashdot*, *Wired*, *Mashable* and *ReadWriteWeb*, various activities of O'Reilly publishers, and conferences such as SXSW (Austin) and LeWeb (Paris), the term 'social media' indicates a next stage characterized by consolidation and integration. When we talk about social media we essentially refer to the main two players: Facebook (the social hangout place) and Twitter (for short and fast news exchanges), and perhaps also LinkedIn (for professional networks) and Google+ (for the techies). While this reduction is done in an unconscious manner, it perfectly illustrates the desire to agree on a common standard of communication (knowing that this is not really possible in this still dynamic environment).

Social media indicate a shift from HTML-based linking practices of the open web to liking and recommendation, which happen inside closed systems. The indirect and superficial 'like economy' keeps users away from a basic understanding of what the open web is all about. Information acts such as befriending, liking, recommendation, and updating social media, introduce new layers between you and others. The result is, for instance, reducing complex social relationships into a flat world (as described well

by Zadie Smith) in which there are only 'friends'. Google + was initiated in response to this positive, New Age worldview without antagonisms. This is the contradiction of the democratized internet: whereas many benefit from simple technology, we all suffer from the cost of the same simplicity. Facebook is popular because of its technical and social limitations. This brings us to the need for a better understanding of interfaces and software that is now stored in the Cloud. We cannot access the code anymore, a movement which could be seen as part of the 'war on the general purpose computer' as described by Cory Doctorow at the 28th Chaos Computer Congress in Berlin (December 2011).[3]

Whereas we demand open data, use open source browsers, and argue over net neutrality and copyright, 'walled gardens' like Facebook close the world of technological development and move towards 'personalization' in which messages outside of your horizon will never enter your information ecology. Another important watershed between Web 2.0 and social media is the arrival of smartphones and apps. Web 2.0 was still entirely PC-based. Social media rhetoric emphasizes mobility: people have their favorite social media apps installed on their phone and carry them around wherever they are. This leads to info overload, addiction, and a further closure of the internet that only favors real-time mobile applications, pulling us further into accelerated historical energy fields such as the financial crisis, the Arab Spring and the Occupy movements.

In July 2011 the Unlike Us research network was launched, dedicated to social media monopolies and their alternatives, founded by our Institute of Network Cultures (Hogeschool van Amsterdam) in collaboration with Korinna Patelis (Cyprus University of Technology, Limassol). The launch event took place in Cyprus on November 28, 2011. A two and a half day conference with workshops happened in Amsterdam, March 8-10, 2012.[4] The events, blog, forum, list, reader and other outlets deal with a range of topics (some of them listed below), inviting theoretical, empirical, practical, and art-based contributions. Unlike Us anticipates the need for specialized workshops and so-called barcamps, realizing that its agenda is diverse and can take the initiative in a variety of directions – up to the danger of fragmentation.

Let's move on from the question so often heard inside firms, NGOs, government departments, and (vocational) education, about how best to utilize Facebook and Twitter. In contrast with social science scholars around Christian Fuchs discussing the (Marxist) political economy of social media[5], Unlike Us is primarily interested in a broad arts and humanities angle also called web aesthetics (as described by Vito Campanelli[6]), activist use, and the need to discuss both big and small alternatives, and does not limit itself to academic research. We see critique and alternatives as intrinsically related and both guided by an aesthetic agenda. Another Social Network is Possible. However, no matter how understandable the need for practical how-to information is, including

3.   Cory Doctorow, 'Lockdown: The Coming War on General-purpose Computing', *Boing Boing*, 10 January 2012, http://boingboing.net/2012/01/10/lockdown.html.
4.   For more information on the Unlike Us network, the related email list, upcoming conferences, and workshops, including the blog and (academic) publications see, http://networkcultures.org/wpmu/unlikeus/.
5.   See, http://www.icts-and-society.net/events/uppsala2012/.
6.   Vito Campanelli, *Web Aesthetics*, Rotterdam: INC/NAi Publishers, 2010.

the need to spread information about alternative platforms, our research cannot stop there. Expect in this reader to go back to the basics sometimes. Should we reassess the centralized model or continue to argue for decentralized models? Is the distributed 'federated social web' some sort of Third Way alternative? For more information on the original intentions of the network we included, in the appendix of this reader, the Unlike Us research agenda, put together in July 2011 by a group of people who collaboratively wrote this text online in the network's early stages.[7] One and a half years into the history of Unlike Us the agenda is becoming more clear, and focused, but real choices still have to be made. Hopefully there is light at the end of tunnel of the fundamental conceptual and strategic debates of the moment. You can feel there is something at stake.

Discussing the latest research trends we can see a growing tiredness over the 'exploitation' thesis of social media in favor of a more detailed analysis of the 'like economy' on the one hand, and the desire to design alternatives on the other. The critical mass advantage of Facebook and Twitter is wearing out, but how can alternative platforms become more successful? The monopoly position and related control-mania is becoming too obvious and a banality to present as a research outcome. Power patterns in the IT industry, from IBM and Microsoft to Google and Facebook are becoming well-known. Ordinary users do not want to look uncool and cannot afford to be left out in this informal reputation economy; this is why they feel forced to follow the herd. We all still have to get used to the two faces of networked reality: networks are both ideal to scale-up quickly so that early movers can create new publics, and, cashed-up with venture capital take over a technology or application in no time. And, in contrast to this aspect of speed and size, there is always also the distributed and decentralized, informal quasi-private side of networks. Lately, social media companies have emphasized the first and neglected the second, obsessed as they are by hyper-growth at all costs. It is time for designers, programmers, and geeks and nerds of all nations to step in, realize the dark sides of corporate-state control and become active. Either the startup cult will have to be radically reformed or blown up all together. Hopefully, this reader can play a role in this process.

Amsterdam, October 2012

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7. Contributors to the initial *Unlike Us* call: Marc Stumpel, Sabine Niederer, Vito Campanelli, Ned Rossiter, Michael Dieter, Oliver Leistert, Taina Bucher, Gabriella Coleman, Ulises Mejias, Anne Helmond, Lonneke van der Velden, Morgan Currie, Eric Kluitenberg, and the initiators Geert Lovink and Korinna Patelis.

THE MOST PRECIOUS GOOD
IN THE ERA OF
SOCIAL TECHNOLOGIES
/
BERNARD STIEGLER

SOCIAL NETWORKS INDIVIDUATION
PHILIA FRIENDSHIP PSYCHICAL
TIME WAY TECHNOLOGY
COLLECTIVE PROCESS INDIVIDUAL
RELATIONAL MEANING GROUP

What we usually call 'social networks' – a paradoxical appellation, as we shall see, – lie at the core of what constitutes the social.[1] The appellation itself is paradoxical since we are talking here about digital networks which appear to shortcut the traditional networks of proximity that have defined what is social from times immemorial. And we will easily admit that they are core to the social when following Aristotle who said that they pertain to the *philia*, itself the fundament of the social.

Aristotle tells us – and all traditions currently in vogue, including Jacques Derrida in *The Politics of Friendship* follow him in this respect – that friendship (i.e. *philia*) is the paramount social link without which society would not exist. Jean Lauxerois, however, strongly disagreed with translating *philia* with *friendship*. I did not follow him, initially. But reflecting on social networks I ended up seeing that he was right:[2]

– Firstly because there is actually a Greek word for friendship: 'philotès',
– Secondly because Aristotle states that each and every *animated living being* partakes in a *philia* with its kin.[3]

> *Philia*, writes Lauxerois, is more than mere friendship the way we understand it. It designates the way every living being, whether human or animal, is by necessity bound to other living beings from the moment he or she comes to the world.[4]

Philia was according to Aristotle what bonded humans, yet humans, again according to Aristotle, represented only one particular case of philia.

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In order to clarify this first point, especially where we would like to enquire whether new forms of friendship arise through what we call social networks, or more generally, new forms of *philia*, I suggest we make a detour in the company of Jacob von

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1.   Translated from the French by Patrice Riemens. Originally published in Bernard Stiegler (ed.) *Réseaux sociaux: Culture politique et ingénierie des réseaux sociaux*, Collection du Nouveau Monde Industriel, Limoges: FYP éditions, 2012.
2.   For further analysis and argument see, Bernard Stiegler, *Veux-tu devenir mon ami?* ('*Do you want to become my friend?*'), forthcoming.
3.   See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Philia et philotès (http://iri.tw/a).
4.   Jean Lauxerois, 'Postface à Aristote', in Aristote, L'Amicalité, Chapitres VIII et IX de *Ethique à Nicomaque*, trans. Jean Lauxerois, Garches: Éditions À propos, 2002, p. 84.

Uexküll. His *description* includes one aspect of animal *philia* as the fundamentally open possibility of *adoption*:

> Gregarious jackdaws have around them their entire lives a "companion" ["*socius*"] with whom they undertake all sorts of actions. Even if a jackdaw is brought up alone, it does not go without the companion but, if it cannot find one of its own species, it takes on a "substitute companion," and, in fact, a new substitute companion can fill that gap for each new activity.
>
> In its youth, the jackdaw Tschock had [his owner] Lorenz himself as its mother-companion. It followed him all over the place; it called to him when it wanted to be fed. Once it had learned to get its own feed, it chose the maid as its companion and performed the characteristic courtship dance in front of her. Later, it found a young jackdaw which became its adoptive companion and which Tschock fed. Whenever Tschock prepared for a longer flight, it attempted to persuade Lorenz to fly with it in typical jackdaw fashion, by flying straight up just behind his back. When that did not work, it joined flying crows, who then became its flight companions ["*socii*"]. [5]

According to Lauxerois, Aristotle states:

> *philia* should be regarded as pertaining both to animals of the same sort, say birds, as to members of the same family – but also to the relationships that obtain between and within different human communities – like city-states. [6]

Now, if it is possible for jackdaws to adopt living beings who are not fellow species as equal to themselves, we must ask ourselves what it is *exactly* that constitutes the *philia* of *those who can become friends*. By friends we mean those beings who can be *affected by love, desire, and absence* – of which the desired object (conceptualized by Lacan as 'le manque', 'the lack') is always an experience. And from there, to *individuate themselves in this affection*, by which they become *psychically* individuated, and in that, *singularly affected*.

In Simondon's terms, this issue pertains to the passage of *vital* individuation to *psychical and collective* individuation. Vital individuation, writes Simondon:

> […] can take place either at the level of an individual being, or through the organic relationship which exists between different beings. In the latter case, internal integration within the individual being is augmented with and by external integration: the group functions as integrator. Vital unity constitutes then the sole concrete reality, and this can consist in some cases of a single individual, and in others of a very differentiated group of multiple individuals. [7]

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5. Jacob von Uexküll, *A Foray Into the Worlds of Animals and Humans: With a Theory of Meaning*, trans. Joseph D. O'Neill, Minneapolis: University of Minnesota Press, 2010, p. 111.
6. Jean Lauxerois, 'Postface à Aristote', p. 84.
7. Gilbert Simondon, *L'individu et sa genèse physico-biologique*, second edition, Jérôme Million, Paris: Paris Universitaires de France, 1997, p. 156 (quote translated).

n a note, Simondon goes on to describe the very specific *philia* of the white ants:

> Despite their rather simple neuronal constitution, white ants build the most elaborate structures found in the animal world: working as a group, they act as if they were one single organism.[8]

We must therefore think in terms of vital *individuation as a process*, rather than in terms of (the nature of) living individuals:

> What in biology is called an individual is actually a sub-individual rather than an individual; it is as if in biology, individuality should be seen as having many layers, depending on successive levels of individuation [...] Not the single individual, but the group as a whole should be regarded as the vital unit.[9]

Individuation seen this way results in another conception of *philia*, and of what is tentatively understood under this term. It relates to the grouping together of (all kinds of) plant or animal life, of cells agglomerating into one body, corals, colonies of all sorts, herds, gangs, pairs of animals – all this would typically result in vital individuation in relation to physical individuation.

But vital individuation consists in a banding together of individuals without becoming a community plagued by a *community deficit* which, according to George Bataille, is the hallmark of those who are susceptible to friendship – the deficit of community where psychical phenomena arise which belong to what Canguilhelm called technical life, with another word: humans. Contrary to psychical and collective, or social individuation, vital individuation is *always a bonding, and with no possibility of disjunction other than a teratological one or one caused from outside*.

And, as opposed to this vital individuation, psychical and collective individuation, at the same time, fit and unfit the community of those who are bereft of a community, meaning an individuation that is at the same time always *augmented* yet also *diminished* by technical individuation – that is the individuation of the sort of beings that we are, or at least try to be, or that we believe to be in our attempt to share a common future, a future which we would like to be friendly, or which we would like to be able to believe to be friendly, especially with regard to the expansion of what we call 'social networks' – psychical and collective individuation becomes, contrarily to vital individuation, an *alteration*: a *becoming-other*, in the presence of the other, of the big Other, that is, existing under the condition which Freud first, and then Lacan, called *das Ding*.

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Whatever may be said about these translation issues – and whatever may be said about the precise difference between *philia* and *philotès*, between *philia* as animal adoption and *philia* as human adoption, within which friendship, in the sense of *philotès*, would be only a specific instance – in order to be part of a social network which originated in

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8.   Gilbert Simondon, *L'individu et sa genèse physico-biologique*, note 1 (quote translated).
9.   Gilbert Simondon, *L'individu et sa genèse physico-biologique*, p. 157 (quote translated).

social engineering,[10] meaning the sophisticated relational technologies that are 'social networks', one should first describe what this relational technology calls your 'network of friends' – 'friends' which should be better understood in the sense of 'contacts', not even 'acquaintances', but rather addressees and carriers of one's 'reputation', by way of the *network effect of networks* which makes the 'friends' of my 'friends' automatically my 'friends'.

We should also enquire here about these *reputation technologies* – which according to Howard Rheingold are sophisticated relational technologies of social engineering – by taking what the (ancient) Greeks called the *kleos*[11] as our starting point. Kleos is variously translated as reputation, glory, posterity, rumor, etc., but we lack room and time here to pursue this further. And another very pressing issue would be to analyze how this 'network effect' precisely affects this type of 'network of networks' which, I would think, does nicely correspond to what Aristotle understood as *philia* amongst mortal, noetic beings, also known by moderns as 'humans'.

The *description* of one's 'network of friends' such as is demanded by the relational technology of social networks requires that one formally includes other members of the network in one's own network, themselves having therefore also agreed with this declarative and descriptive procedure. By (formally) declaring our 'friends' and our 'friendship', and also operating a selection among our *friends, acquaintances, and contacts of all sorts*, here all lumped together under the appellation 'friends', we trigger a profound alteration under *what used to be understood as social networks:* friends, family and relatives, acquaintances, chums, pals, old social structures, the very ones *creating* those networks and *depending* on them at the same time, etc.

And thus we were already included in these social networks, but without really realizing it so much. But now we see ourselves drawn into these relational technologies, which suddenly leads us to make them explicit, and at the same time to profoundly change them, and sometimes even to abandon them altogether with regard to those whom we now call our friends. Therefore, I think we should consider them rather as the sort of *philia* we see amongst animals, like Tschock the jackdaw or white ants in their anthills. I am repeating here an hypothesis already voiced in my book *De la Misère Symbolique 1* where I suggest that digital technologies, in so far as they generalize traceability, could well return humanity's behavior to the level of synchronized arthropods moving around under the sway of the chemical pheromones emitted continuously by all members of the colony.

It is here that the translation issue raised by Lauxerois would take its full meaning: are digital, also known as social, networks a *philia* regressing us to the state of insects, or do they constitute a novel opportunity to achieve this elusive *philotès* among humans? And in order to dramatize the issue even further, let us look at what Aristotle had to say about what *philia* is when it is human:

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10. English used in the French original. (Note from translator.)
11. See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Régression ou évolution (http://iri.tw/8).

Philia is the most necessary thing in life, since nobody would choose to live without it, even in the possession of all other goods.[12]

Here, Aristotle is crystal clear: among humans, and in its manifestation as friendship, philia *is the most precious good*. It is the most precious good for *individual* human beings, because *without it, life is not worth living*.[13]

But it is also the most precious good for *societies* for the simple reason that it constitutes their very basic feature, as linking power, which also means as power to create the solidarity that spawns relational threads, or in other words, social networks.

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These friends – whose chance encounter makes us so happy, just as the unexpected things that arise from the encounter, like Bouvard meeting Pecuchet on a bench – these friends then, and the networks that form *around* them and *thanks to* them, are precisely what the Facebook entry procedures demand from us to *declare*, before any relation can be established, but also *only after we have duly given our email address and chosen a password*. It is thus in no way different from making a statement at the police station – it is a *formalization*, *a publication*, in the sense of making public.

Such a construct whereby friendship is *declared, formalized,* and *made public* invites many, many questions – including ones on its perfectly performative character: if one declares someone to be one's friend, one in a certain sense *makes* him or her a friend, and *forces* her or him to be one. Yet it would seem that if there is something essential to a friendship-based relationship, it is precisely to *escape* formalization and publicity, but on the contrary to contribute to the existence of a group of what is called *intimi*, people one is intimate with, or, more broadly speaking, the circle of *familiar faces*. 'No fuss between us' is typically something one says when establishing the bonds of friendship, switching for instance from the polite to the informal address, as promptly do Bouvard and Pecuchet after their chance encounter.[14]

However, maybe the situation is still more complex in nature, as I will try to show. Maybe friendships always carried with them a public, if not an explicit, declaration, precisely because friendship very often lies at the origin of a social network. Such a social network could be very small, and the public declaration could even have a more narrowly limited reach pertaining to the most intimate of relationships, constituting what Lacan called the *extime* ('exteem').[15]

Now, besides all these considerations, what is Facebook actually, apart from the fact that it is, as Alain Seban has mentioned, a social network that has grown at a rate of

12. Paraphrased from the famous passage in Aristotle's *Nicomachean Ethics, Book VIII, Chapter 1*. (Note from translator).

13. And it presupposes the other form of *philia* which antedates friendship: maternal and filial love. See, Bernard Stiegler, *Ce qui fait que la vie vaut la peine d'être vécue. De la pharmacologie*, Paris: Flammarion, 2010 (*What makes life worth living: On pharmacology*).

14. See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Facebook ou l'amitié déclarée, (http://iri.tw/6).

15. Jacques Lacan and Jacques-Alain Miller (eds) *Le Séminaire XVI: D'un autre à l'Autre*, Paris: Éd. du Seuil, 2006.

ten million a month since the beginning of this year and will pass hundred million users after August 25?[16] Well, to start with the beginning, as one says informally, that is to say among friends, and to say so in a non-Aristotelian language: Facebook has a mode of functioning based on two features:

1. *creating a profile*, which amounts to a kind of *self-description through one's relations*,
2. *dialogue*, which constitutes a process *of sociation in terms of collective individuation*.

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Everybody is aware of the fact that the profiling feature is problematic insofar as it is nowadays being made use of by advertisers to target 'potentials' in the most precise way possible – let's call that surgical marketing.

The *self*-profiling function could of course be an *exercise in reflexivity* for the person practicing it, but it has as principal effect to bring the new member of this type of network to declare his or her social belonging as if he or she were an ethnographer, and to thereby engage, if not in *auto-ethnography*, then at least in an *auto-sociography* by declaring and writing his or her network attachments – especially concerning friendships, but also interests of all kinds, including the most trivial and venal ones – all through a *digital script mechanism*.

I do believe that this self-indexation feature could be of major *social significance*, and could even trigger a *renewal* of social life – which is in bad shape by the way, we can't deny that much. I do believe that the reflexivity included in the public declaration of relationships (friendly and otherwise) could lead, if intelligently put to work by communities and collective intelligence networks like Facebook and others, to the emergence of a process of psychical, collective and technical individuation, which would indeed make for a *relationally peaceful* or benevolent 21st century, grounded in – if I dare to say – a new benevolence (i.e. goodwill), even if it would not be 'friendly' in the strict sense of the term.[17]

Others would probably say that the social is not in very good shape precisely *be-cause of these technologies* which destroy it at the same time as they *formalize* it. So it may be. Such a mechanism indeed allows for meta-formalizations, the extraction of rules, but also of computations, which would lead to a computation-imposed destruction of existence – whereas friendship always supersedes such computations, hence the 'no fuss between us', (meaning no trucks involving money, no cunning moves big or small, the reason why one often hears that 'in business there are no friends', etc.).

These cunning, considered moves, when they are made for the sake of sociological or anthropological research, form the mainstay of John Barnes' theory of *social networks*.[18] Claude Lévi-Strauss went down the same road in order to research and

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16. These remarks were made in 2008. Facebook now has over 700 million members. (Note from translator: Facebook has in the mean time hit one billion registered users).
17. See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Emergence d'un XXIe siècle paisible (http://iri.tw/7).
18. See the (French) Wikipedia entry for 'social networks'. (Note from translator: English in the original French text).

structurally formalize the social relations within the Nambikwara tribe, where he took the opportunity arising from an incident to trick the tribe's little girls into telling their names – names which *ought to have remained secret*:

> One day, when I was playing with a group of children, a little girl was struck by one of her comrades. She ran to me for protection and began to whisper something, a "great secret", in my ear. As I did not understand I had to ask her to repeat it over and over again. Eventually her adversary found out what was going on, came up to me in a rage, and tried in her turn to tell me what seemed to be another secret. After a little while I was able to get to the bottom of the incident. The first little girl was trying to tell me her enemy's name, and when the enemy found out what was going on she decided to tell me the other girl's name, by way of reprisal. Thenceforward it was easy enough, though not very scrupulous, to egg the children on, one against the other, till in time I knew all of their names. When this was completed and we were all, in a sense, one another's accomplices, I soon got them to give me the adult's names too. When this was discovered, the children were reprimanded and my sources of information dried up.[19]

It is from such anthropological descriptions exploring the hidden relationships instrumental in the establishment of social relations – one could also mention here the works of Benjamin Lee Whorf, who formalized the grammar of the Hopi Indians, very much against their wish[20] – that we may arrive at a better understanding of the social as a *set of relational rules*, and even be able to make it more dense, to strengthen, as it were, the modalities of the exercise of the *philia*.

And now I am coming to believe that the same kind of descriptions, if done through this system of auto-anthropology that is a social network like Facebook, could also lead to a form of reflexive individuation.[21] But if so, under what conditions?

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It is through *science*, be it anthropology or linguistics, or law – since law is what formalizes social rules – that we should arrive at a kind of reflexive *philia*, which could be understood as the hallmark of *political* societies. Political societies arose with the Greek *polis*, which was grounded in public law, itself declared, described, and made explicit according to a strict set of rules in the sense that they were grounded in citizenship as a *formally constituted friendship bond, which itself was formally declared and based on public law* which was simply the entry condition into a social group called *polis*, and then *civitas*, and finally nation. This, of course, is a network of networks itself also grounded in a technology that makes relations explicit, namely writing.

In fact, nowadays, the arrival of a new member of the community, commonly called birth, must *absolutely and always* lead to a declaration to a registrar (of birth and death), who at the same time formalizes a *family* network by putting it down in writ-

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19. Claude Lévi-Strauss, *Tristes Tropiques*, trans. John Russell, New York: Criterion Books, 1961, p. 270.
20. Benjamin Lee Whorf, *Linguistique et anthropologie*, Paris: Gonthier Denoël, 1956.
21. See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Individuation réflexive (http://iri.tw/b).

ing. These written and hence formal archives accompany a person, in circumstances happy or unfortunate, for the time of his or her life. There would be no historians without them.

Writing is a mnemotechnic for formalizing relationships. It starts with the most elementary relational organ all humans share: the language. This is why the Hopis didn't want their language to be grammatized: they knew it would destroy their very culture.

And yet, wouldn't Hopi society, which so fascinated Aby Warburg, have had a better future if anthropology had been able to offer another modality of grammatization, that is, a discretized formalization of its relational flows – the kind of flows through which social networks arise which constitute a social group?

Whatever is the case, it is clear that citizenship forming is grounded on the descriptive grammatization of social relationships by way of the written script in the service of an intensification of the psychical individuation of each citizen, and through him of her, of the other citizens, leading by progressive extension, to collective individuation. This in turn leads to a particular process of *trans-individuation*, which simply amounts to the *writing of history*, itself leading to the *specific social dynamic* which we call the Occident.

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I call a *process of trans-individuation* that which ensures that during the course of a social relationship, something that is always, in Simondon's words, an assemblage of psychical individuations socially co-individuating each other (and not only in the psychical sense), and this through processes of dual *co-individuation*,[22] meaning individuation *by two people at a time,*[23] of which friendship and love are exquisite and necessary instances for the formation of the psychical individual (reason why childhood friendships are so important, and why Wilhelm Meister's friendship fascinates us so much), a process of *meta-stabilization* exists, during this co-individuation, which leads it towards what would be called in neuronal network theory an *attractor*, through which a certain type of relations gets built up as *norm*.

This implies that *trans-individuation is not simple co-individuation*: it is what is bound to become the *rule* of the network, a rule more efficient as it is unconscious most of the time. Such a trans-individuation results in what Simondon calls the trans-individual, and the trans-individual is what meta-stabilizes meanings.

Meanings make for a world by giving it an understanding shared by those who *individuate and co-individuate themselves* in it by making its meaning evolve, thereby transforming what was a simple *network* in a true *world*, within which a process of collective and psychical individuation is triggered among those who form this network-world, and bonds them together under the seal of friendship, that is with the force of the bonds constituting friendship.

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22. On 'the dual' see, Alain Badiou, *De l'amour*, Paris: Flammarion, 1999.
23. See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Transindividuation (http://iri.tw/g).

So if the written script constitutes an individuation regime which allows for the intensification of the evolution that is collective individuation by enhancing psychical individuation and thereby strengthening the social bond, it can also lead, as Michel Foucault has shown, to a process of *subjectivation*, which actually is a *sujétion*, or submission, leading in turn to de-subjectification and *disindividuation*.

This is particularly true of what Foucault termed disciplinary societies, where the power not only 'files' all behaviors, but also *documentalizes* individuals in order to submit their whole life, in all its aspects, to control by way of writing. This is what Foucault called bio-power ('*biopouvoir*').

Characteristic of the bio-power is the test – school-test or health-check – which is foremost a disciplinary and a surveillance technique. As Foucault states, 'The examination also introduces individuality into the field of documentation […] The examination that places individuals in a field of surveillance also situates them in a network of writing; it engages them in a whole mass of documents that capture and fix them',[24] and which constitutes also a 'power of writing'.

Now, even if the 'Edvige'-project[25] reminded us of something already noted in the Nora-Minc report[26] on the informatization of society, namely digitization and the ensuing traceability – the expansion of what the authors propose to call 'telematics' – represent a considerable risk to individual and collective liberties, the *big issue, the truly new issue*, is not so much about *state and police control*, but about the control which *marketing* attempts to exercise on behaviors through the set-up of systems of self-description of social relations. If inclined to pessimism, one might fear that they inevitably will lead to a new form of computer-assisted, self-inflicted slavery – a digital anthill.

In which case we will face something greater than a bio-power: a psycho-power, or to be even more precise,[27] a psycho-socio-power.[28]

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I must immediately clarify that I am not out to simply reduce social networks to police instruments, nor to simple marketing instruments. Neither am I out to demonize police or marketing as such.

I rather would like to show that *social networks represent a stage within a process of grammatization*, which leads to the *grammatization of social relations* as such. I call grammatization the process of formalization and discretization which permits, on one hand, the reproduction of what is discretized, and on the other, operations, of computing or control, and finally, a reflexivity, or critique, of what can be iterated,

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24. Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan, New York: Vintage Books, 1977, p. 189.
25. A comprehensive French police registry project, finally abandoned in the wake of massive protests. (Note from translator).
26. Simon Nora and Alain Minc, *L'Informatisation de la société*, Paris: Éd. du Seuil, 1997.
27. See Bernard Stiegler in conversation with Philippe Petit and Vincent Bontems, *Economie de l'hypermateriel et psychopouvoir*, Paris: Mille et une nuits, 2008.
28. See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Le risque de prise en main du Marketing (http://iri.tw/d).

and which, by way of its iteration, is able to produce a difference, meaning also an individuation, meaning then again, a difference.[29]

Now, being a grammatization of social relations, like all grammatizations, social networks are a *pharmacologic* phenomenon because they allow both for disindividuation as well as for the intensification of individuation.[30] This is where the dialogue function on Facebook should be helpful – if only trans-individuation applications were installed on it, something that, as far as I know at present, is entirely lacking.

Social networks are therefore essential components of what Deleuze called control and modulation societies – and they push them further forward. But let us not forget that Deleuze sometimes speculated about an *art of the control*, and that his primary concern was not to do away with control, but *to do something* with it – if not to take control of it. The fact that social networks make disindividuation worse, not so much through police control, but through the behavioral control exercised by marketing, represents a possible disindividuation which *could* be countered, but only if one is able to *reverse the pharmacologic direction of social networks*.

All this is not about preventing or denying the existence of social networks, or ignoring the dangers they represent. It is foremost about inventing the future of social networks, *in* social networks, and *with* social networks. But this is only possible if we are able to arrive at an understanding of these networks which are *at the same time* technological and social, and to attain such an understanding as to make these networks capable of becoming *agents of reflexivity* – for instance as agents of the reflexive modernity Ulrich Beck invoked more than twenty years ago, after the Chernobyl catastrophe.

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I just used the word *catastrophe*, a word that has become commonplace these days, yet should not be used in vain. All the same, and before proceeding any further, I would like to posit here that if Chernobyl was a great catastrophe (and in the meanwhile we also have witnessed the catastrophe at Fukushima), we now discover many more catastrophes, all inviting us to think about other mediations regarding this 'reflexive modernity', or, to use a more open formula, to think about *a new industrial civilization*, something which would drag us out of our seemingly present state of *industrial decadence*.

Here, I am thinking more specifically about catastrophes that are psychical, social, and also those between generations, something young people suffer more and more from due to the slow, but undeniable, erosion of the social networks which existed before the *digital social networks*, like the family, school, neighbors, citizenship, mediating organizations, etc.

This erosion comes as the consequence of the excessive influence of psycho-power buttressed by psycho-technologies which multiply all kinds of networks. The worst

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29. On these issues, see Bernard Stiegler, *Bêtise et savoir au XIXème siècle. Pharmacologie de l'université*, Paris: Fayard, 2012.
30. See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Réseaux sociaux, poison ou remède (http://iri.tw/9).

culprit, I think, is the television network, which short-cuts the *traditional social network*, the one which, by virtue of its inter-generational nature, for millennia took care of a *familiar reticularity*, that *philia* without which no society can exist, and which has led to a kind of psychical and at the same time collective disindividuation.

Thus, beyond these *psycho-technologies*, *socio-technologies*, or rather, psycho-socio-technologies appear together with social networks. I have shown elsewhere how, in our very complex times, this disindividuation goes together with a destruction of inter-generational bonds, and also with a technology of massive capturing of psychical attention.[31]

Yet, as one knows, attention is not only a psychical, but also a social thing. Social attention means civility, urbanity, the common politeness whose name is derived from *polis*, that is politics in its most friendly and peaceful garb possible. For so far it is true that the opposite of a friend is a foe, and that the common relationship amongst foes is war.

The gambit of social networks constituting the digital grammatization of the social – which of course goes together with metadata technologies and innumerable other facets of the formalization of trans-individuation processes – is the mutation we should achieve regarding putting to work techniques of formation and the capture of psychical as well as of social attention, in the form of relational technologies.

My fundamental thesis on these issues in general is, that precisely what creates processes of disindividuation, that is of the destruction of the social, is what, by the very virtue of its grammatization, is also the one and only road towards the invention of new forms of individuation.[32] And this is the viewpoint that informs all the activities and research and development at Centre Pompidou's Institute for Research and Innovation (IRI).

However, such a position is only achievable by first operating a pharmacological critique of its objects – and that is what I shall attempt to sketch as a conclusion by stressing that the gambit of such an exercise amounts to no less than the dilemma: war or peace, and this within a phenomenon presently emerging that I call the *inter-nation*.[33]

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If social networks are an extraordinary example of Simondon's theory, following which one can only psychically individuate by individuating collectively, contemporary society then suffers from a social disindividuation which has liquidated what used to be called social networks – networks grounded in inter-generational, ancestral relationships.

Looking through this prism, one is tempted to think we can observe the emergence – through Facebook and so many other socio-technological modes of mediations,

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31. Bernard Stiegler, *Prendre soin. De la jeunesse et des générations*, Paris: Flammarion, 2008. ('Taking care. On youth and generations').
32. See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Vers une nouvelle forme d'individuation (http://iri.tw/e).
33. For the concept of inter-nation see, Bernard Stiegler, *Bêtise et savoir au XIXème siècle.*

including networked games – of non-social networks, *substitutes* for *true* social networks: *pharmaka* of social networks, ersatz, simulacra, make-believes and make-dos for the absence of social reality. They are a 'cure' for the lack of social relations, just as games are a relief for the social desert in which young adults live – as was well demonstrated by Thomas Gaon in the workshop *Desire and Technology* organized by Mathilde Girard at IRI.[34] One is then tempted to think that the cure these young adults administer themselves might well be worse than the disease – maybe *erroneously, that is, if one enquires no further*.

Yes, it is the young adults who develop the social networks, and who find in these technologies a way to reconstitute what they miss so dearly: namely, a *philia*. But a young adult needs the gaze of another young adult, of a peer – and that is exactly what these networks provide. This is why 'peer-to-peer'[35] has taken such a flight, and the internet is an ideal *medium* to develop such parity-based relationships. But for us at IRI, peer-to-peer has also imposed itself because nowadays youths no longer wish to be mere consumers, they want to act and to practice, and that is a good thing. They want to *individuate*, both psychically and collectively.[36]

It is within this general (and generous) context that we also should take notice of the fact that a social network is also a space of construction of what Freud called the '*secondary processes of identification*', which normally take place within a proximity-based social network, i.e. within the *philia* constituting a device of the familial, or tribal, or clannish, or rural, or urban type, which are also political, etc.

And as far as the present *public domain* is concerned – which is now by and large digitized and consists of psycho-socio-technological networks, given that all previous structures have fallen apart in the meanwhile – let us take good notice that it allows numerous young adults to break loose from the television networks. These have become, in their eyes, the stamping ground of adults, who they actually consider as *minors*, since their parents have more often than not become *infantilized* by the transformation of their psyche in a repository of 'disposable brain-time',[37] a situation contemporary youth wants to counter by developing its own relational, if not truly *social*, space.

Why this proviso? Because I do not believe that a social *network* in general, and a socio-technological network in particular could ever be able, by itself, to foster the formation of a social group. And also because I believe that the real issue is about the *arrangement* of social *networks* with social *groups* (since a social network without a social group is equivalent to a mafia).

Such an arrangement is not only possible, but also entirely believable because a socio-technological network is also a scripted space and hence a space of individuation. But

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34. 'Désir et technologies: Autour des jeux videos', workshop with Thomas Gaon and Serge Tisseron, organized for the l'Institut de recherche sous la responsabilité by Mathilde Girard, 26 June 2008.
35. English in the original. (Note from translator).
36. See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Adolescents acteurs (http://iri.tw/h).
37. (In)famous statement by a commercial broadcasting director to express how he was looking at the channel's audience. (Note from translator).

in order to *actually* be possible, a socio-technological network should also be inter-generational, or, to put it more precisely: *a social group should constitute itself as an inter-generational arrangement of socio-psycho-technological networks*.[38]

There are all kinds of socio-technological networks, and Facebook is only one instance of them. Many of these networks have been invested by adults for the purpose of pursuing various foci of interest – ranging from professional activities to religious beliefs, and innumerable other types and forms of life experience in between. The grammatization represented by social networks is bound to take in, in its time, all forms of traditional social networks, the way immigration networks too have been connecting to socio-technological ones.

We, at the Research and Innovation Institute of the Centre Pompidou, take a very political stance with respect to modern culture, and for us, this entails that we, as adults, must take up in the most attentive, but also must generous way, our responsibilities in matters of the development of socio-technological networks. They should become networks for the production of maturity and majority (*majorité*) in the Kantian sense of the word: adult networks, networks where young adults are enabled to find their path towards adulthood, transforming from minors into adults in the process, a thing that has become extremely difficult in an age where adults themselves have become so dramatically infantilized.

For that, we need to create policed, meaning politicized communities of friends in the social networks.[39] These communities should be civic in the sense that they take a critical stance regarding the conditions of their individuation. This project should be conducted according to a pharmacological conception of the network, where, for instance, it should be perfectly feasible to go on the networks in order to counter anything on these very same networks that stands in the way of their concretization as a process of psychical, technological, and collective individuation. It is necessary to develop communities of theoretical and practical knowledge on and in the networks, to establish spaces of critique, and for this, to invent a much needed *political technology*, which requires in its turn an advanced understanding of *metadataware*, based on polemical trans-individuation technologies, and by organizing logical controversies that are at the same time peaceful, well-meaning, and based on voluntary contribution.

This is what we are working on at the IRI.

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38. See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Du réseau social au groupe social (http://iri.tw/f).
39. See the lecture held by Bernard Stiegler, 'Désir et relation sociale à l'époque du social engineering', ENMI 2008, Communautés critiques (http://iri.tw/e).

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AGAINST REMEDIATION

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DAVID M. BERRY

DATA MEDIA COMPUTATIONAL
SOFTWARE WEB CODE GOOGLE
USER BUGS TIME TECHNOLOGIES
REMEDIATION INFORMATION

In contemporary life, the social is a site for a particular form of technological focus and intensification. Traditional social experience has, of course, taken part in various forms of technical mediation and formatting, and has been subject to control technologies. Think, for example, of the way in which the telephone structured the conversation, diminishing the value of proximity, whilst simultaneously intensifying certain kinds of bodily response and language use. It is important, then, to trace media genealogies carefully and to be aware of the previous ways in which the technological and social have met – and this includes the missteps, mistakes, dead-ends, and dead media. This understanding of media, however, has increasingly been understood in terms of the notion of *remediation*, which has been considered to helpfully contribute to our thought about media change, whilst sustaining a notion of medium specificity. Bolter and Grusin, who coined its contemporary usage, state,

> [W]e call the representation of one medium in another *remediation,* and we will argue that remediation is a defining characteristic of the new digital media. What might seem at first to be an esoteric practice is so widespread that we can identify a spectrum of different ways in which digital media remediate their predecessors, a spectrum depending on the degree of perceived competition or rivalry between the new media and the old.[1]

However, it seems to me that we now need to move beyond talk of the remediation of previous modes of technological experience and media when we attempt to understand computational media. I think that this is important for a number of reasons, both theoretical and empirical. Firstly, in a theoretical vein, remediation has become a hegemonic concept and as such has lost its theoretical force and value. Remediation traces its intuition from McLuhan's notion that the content of a new media is an old media – McLuhan actually thought of 'retrieval' as a 'law' of media.[2] But it seems to me that beyond a fairly banal point, this move has the effect of both desensitizing us to the specificity and materiality of a 'new' media, and more problematically, resurrecting a form of media hauntology, in as much as the old media concepts 'possess' the new media form. Whilst it might have held some truth for the old 'new' media, although even here I am somewhat skeptical, within the context of digital, and more particularly

1. Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media*, Cambridge, MA: MIT Press, 2000, p. 45.
2. Marshall McLuhan and Eric McLuhan, *Laws of Media: The New Science*, Toronto: University of Toronto Press, 1992.

computational media, I think the notion is increasingly unhelpful. Secondly, remediation gestures toward a depth model of media forms, within which it encourages a kind of originary media, *origo*, to be postulated, or even to remain latent as an a priori. This enables a form of reading of the computational that justifies a disavowal of the digital, through a double movement of simultaneously exclaiming the newness of computational media, whilst hypostatizing a previous media form 'within' the computational. Thirdly, I do not believe that it accurately describes the empirical situation of computational media, and in fact obfuscates the specificity of the computational in relation to its structure and form. This has a secondary effect in as much as analysis of computational media is viewed through a lens, or method, that is legitimated through this prior claim to remediation. Fourthly, I think remediation draws its force through a reliance on an ocularity, that is, remediation is implicitly visual in its conceptualization of media forms, and the way in which one media contains another, relies on a deeply visual metaphor. This is significant in relation to the hegemony of the visual form of media in the 20th century. Lastly, and for this reason, I think it is time for us to *historicize* the concept of remediation. Indeed remediation seems to me to be a concept appropriate to the technologies of media of the 20th century, and shaped by the historical context of thinking about media in relation to the materialities of those prior media forms, and the constellation of concepts that appeared appropriate to them. We need to think of computational media in terms that de-emphasize, or certainly reduce, the background assumptions of remediation as something akin to a looking glass, and think in terms of a medium as an agency or means of doing something – this means thinking beyond the screenic.

In contrast to talk about remediation, and in the context of computational media, I want to think about *de-mediation*, that is, when a media form is no longer dominant, becoming marginal, and later absorbed/reconstructed in a new medium which *en-mediates* it. By enmediate I want to draw attention to the securing of the boundaries related to a format, that is, a representation or mimesis of a previous medium – but it is not the 'same', nor is it 'contained' in the new media. This distinction is important because at the moment of enmediation, computational categories and techniques transform the newly enmediated form – I am thinking here of the examples given by the new aesthetic and related computational aesthetics. I also want to highlight the processual nature of the enmediation; in other words, enmediation requires constant work to stabilize the enmediated media. In this sense, computational media is deeply related to enmediation as a total process of mediation through digital technologies. One way of thinking about enmediation is to understand it as gesturing towards a notion of a paradigmatic shift in the way 'to mediate' should be understood, and which does not relate to the 'passing through' or 'informational transfer' as such. Rather, enmediate, in this discussion, aims to enumerate and uncover the specificity of computational mediation as mechanic processing.

I therefore want to move quickly to thinking about what it means to enmediate the social. By the term 'social' I am particularly thinking in terms of the meditational foundations for sociality that were made available in 20th century media, and which when enmediated become something new. So sociality is not remediated, it is enmediated – that is, the computational mediation of society is not the same as the mediation processes of broadcast media, rather, it has a specificity that is occluded if we rely on the concept of remediation to understand it. Thus, it is not an originary form of social-

ity that is somehow encoded within media, and which is re-presented in the multiple remediations that have occurred historically. Rather, it is the enmediation of specific forms of sociality, which in the process of enmediation are themselves transformed, constructed, and made possible in a number of different modes of existence.

So this work explores the relationship between sociality and enmediation, particularly in relation to code and software. It does so because sociality and enmediation are increasingly intertwined. That is, code and software become the conditions of possibility for human living, crucially becoming computational ecologies, which we inhabit with non-human actors.[3] As such we need to take account of this new computational world and think about how we live today in a highly enmediated code-based condition. Computer code and software are not merely mechanisms, they represent an extremely rich form of media. They differ from previous instantiations of media forms in that they are highly processual. They can also have agency delegated to them, that they can then prescribe back onto other actors, but which also remain within the purview of humans to seek to understand. As Kitchin argues:

> The phenomenal growth in software creation and use is due to its emergent and executable properties: how it codifies the world into rules, routines, algorithms, and databases, and then uses these to do work in the world to render aspects of everyday life programmable. Whilst it is not fully sentient and conscious, software can exhibit some of the characteristics of "being alive" (Thrift and French, 2002). This property is significant because code enables technologies to do work in the world in an autonomous fashion – that is, it can process data, evaluate situations, and make decisions without human oversight or authorization.[4]

This deeply interactive characteristic of code and software, as computational media, makes it highly plastic for use in everyday life, and as such it has inevitably penetrated more and more into the lifeworld – social media is clearly an important example of this. This has created, and continues to create, specific tensions in relation to old media forms, as well as problems for managing and spectacularizing the relations of the public to the entertainment industry and politics. The notion of enmediation carries over the interests of the previous century's critical theorists, particularly their concern with the liquidation of individuality and the homogenization of culture – the digital is a specific and paradigmatic form of this. Nonetheless, there is also considered to be a radical, if not revolutionary, kernel within computational media.[5] This is due to the relative affordance code/software appears to give for individual autonomy within networks of association to share information and communicate.

Nonetheless, here I want to understand enmediation as a broad concept related to the assemblage of both human and non-human actors. The aim is to explore changes

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3. Matthew Fuller, *Media Ecologies: Materialist Energies in Art and Technoculture*, Cambridge, MA: MIT Press, 2005.
4. Rob Kitchin, 'The Programmable City', *Environment and Planning B: Planning and Design*, 38.6 (2011): 945.
5. See, David M. Berry, *Copy, Rip, Burn: The Politics of Copyleft and Open Source*, London: Pluto Press, 2008; and Paola Antonelli, 'States of Design 03: Thinkering', *Domus*, 4 July 2011, http://www.domusweb.it/en/design/states-of-design-03-thinkering-/.

that are made possible by the installation of code/software via computational devices, streams, clouds, or networks, what Mitcham calls a 'new ecology of artifice'.[6] The proliferation of contrivances that are computationally based is truly breathtaking, and each year we are given statistics that demonstrate how profound the new computational world is. For example, 427 million Europeans (or 65 percent) use the internet and more than 90% of European internet users read news online.[7] These computational devices, of course, are not static, nor are they mute, and their interconnections, communications, operation, effects, and usage remain to be properly studied. This is made much more difficult by both the staggering rate of change, thanks to the underlying hardware technologies, which are becoming ever smaller, more compact, more powerful, and less power-hungry, and by the increase in complexity, power, range, and intelligence of the software that powers them. Of course, we should also be attentive to the over-sharing or excessive collection of data within these device ecologies that are outside of the control of the user to 'redact themselves', as represented by the recent revelation of Path and Hipster that were automatically harvesting user address book data.[8]

Computational devices and systems also enable the assemblage of new social ontologies and the corresponding social epistemologies that we have increasingly grown to take for granted in computational society, including Wikipedia, Facebook, and Twitter – we might say new social forms *enmediated* by the computational. The extent to which computational devices, and the computational principles on which they are based and from where they draw their power, have permeated the way we use and develop knowledges in everyday life is astounding, if we had not already discounted and backgrounded its importance. For example, David Zax[9] has written about the extent to which computational methods like n-gramming are being utilized to decode everyday life.[10] The ability to call up information instantly from a mobile device, combine it with other data streams, subject it to debate and critique through real-time social networks, and then edit, post, and distribute it worldwide would be incredible if it hadn't already started to become so mundane to us.

In fact, the much heralded 'Age of Context' is being built upon the conditions of possibility made feasible by distributed computing, cloud services, smart devices, sensors, and new programming practices around mobile technologies. This new paradigm in computing stresses the importance of connecting up multiple technologies that provide data from real-time streams and APIs (Application Programming Interfaces) to enable a new kind of intelligence within these technical devices. A good example of this is given

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6. Carl Mitcham, 'The Importance of Philosophy to Engineering', *Teorema*, Vol. XVII/3 (Autumn, 1998): 43.
7. Robin Wauters, '427 Million Europeans are Now Online, 37% Uses More than One Device: IAB', *The Next Web*, 31 May 2012, http://thenextweb.com/eu/2012/05/31/427-million-europeans-are-now-online-37-uses-more-than-one-device-iab/.
8. 'iPhone Apps Path and Hipster Offer Address-book Apology', *BBC*, 9 February 2012, http://www.bbc.co.uk/news/technology-16962129.
9. David Zax, 'You Can't Keep Your Secrets From Twitter', *Fast Company*, 26 July 2011, http://www.fastcompany.com/1769217/there-are-no-secrets-from-twitter.
10. An n-gram is a list of 'n' items from a given sequence of textual materials or speech. The basic units can be letters, words, syllables, etc. Google n-gram viewer is a good example of using this technique to search textual corpora: http://books.google.com/ngrams.

by Google's new 'Google Now' product, which attempts to think 'ahead' of the user by providing algorithmic prediction based on past user behavior, preferences, Google search result history, smart device sensors, geolocation, and so forth. As they explain,

> Google Now gets you just the right information at just the right time. It tells you today's weather before you start your day, how much traffic to expect before you leave for work, when the next train will arrive as you're standing on the platform, or your favorite team's score while they're playing. And the best part? All of this happens automatically. Cards appear throughout the day at the moment you need them.[11]

These new technologies form a constellation that creates new products and services, new tastes and desires, and the ability to make an intervention into forethought – what Google calls 'Augmented Humanity'.[12] In some senses this follows from the idea that after 'human consciousness has been put under the microscope, [it has been] exposed mercilessly for the poor thing it is: a transitory and fleeting phenomenon'.[13] The idea of augmented humanity and contextual computing are intended to remedy this 'problem' in human cognitive ability. Here the technologies are aware that they need to tread carefully as Eric Schmidt, Google's ex-CEO, revealed 'Google policy is to get right up to the creepy line and not cross it'.[14] The 'creepy line' is the point at which the public and politicians think a line has been crossed into surveillance, control, and manipulation, by capitalist corporations – of course, internally Google's experimentation with these technologies is potentially much more radical and invasive. These new technologies need not be as dangerous as they might seem at first glance, and there is no doubt that the contextual computing paradigm can be extremely useful for users in their busy lives – acting more like a personal assistant than a secret policeman. Shel Israel argues that this new 'Age of Context' is made possible by the confluence of a number of competing technologies. He writes that contextual computing is built on,

> [1] social media, [2] really smart mobile devices, [3] sensors, [4] Big Data and [5] mapping. We argue that the confluence of these five forces creates a perfect storm whose sum is far greater than any one of the parts.[15]

Today it should, therefore, hardly come as a surprise that code/software lies as the key mediator between ourselves and the world we encounter, disconnecting the physical world from a direct coupling with our physicality, whilst managing a looser softwarized transmission system. Called 'fly-by-wire' in aircraft design, in reality, fly-by-wire is the condition of the computational environment we increasingly experience, and I

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11. 'Google Now', Google, 2012, http://www.google.com/landing/now/.
12. See, Kit Eaton, 'The Future According to Schmidt: "Augmented Humanity," Integrated into Google', *Fast Company*, 25 January 2011, http://www.fastcompany.com/1720703/future-according-schmidt-augmented-humanity-integrated-google.
13. Donald, quoted in Nigel Thrift, 'Re-inventing Invention: New Tendencies in Capitalist Commodification', *Economy and Society* 35.2 (May, 2006): 284.
14. Shane Richmond, 'Eric Schmidt: Google Gets Close to "the Creepy Line"', *The Telegraph*, 5 October 2010, http://blogs.telegraph.co.uk/technology/shanerichmond/100005766/eric-schmidt-getting-close-to-the-creepy-line/.
15. Shel Israel, 'Age of Context: Really Smart Mobile Devices', *Forbes*, 5 September 2012, http://www.forbes.com/sites/shelisrael/2012/09/05/age-of-context-really-smart-mobile-devices/.

elsewhere term *computationality*.[16] This is a highly enmediated existence and has been a growing feature of the (post)modern world. Whilst many objects remain firmly material and within our grasp, it is easy to see how a more softwarized simulacra lies just beyond the horizon. Not that software isn't material, of course, certainly it is embedded in physical objects and the physical environment, and requires a material carrier to function at all, such as the massive data centers that currently power our computational societies. Nonetheless, the materiality of software is without a doubt, *differently* material, more *tenuously* material, almost less *materially material*. This is partly due to software's increasing tendency to hide its depths behind glass rectangular squares, which yield only to certain prescribed forms of interactions. Here I am thinking both of physical keyboards and trackpads, as much as haptic touch interfaces like those found in the iPad and other tablet computers, and new anticipatory interfaces, such as represented by Google Now and Apple Siri.

Web Bugs, Beacons, and Trackers

Some examples will help to demonstrate how this code-based world is increasingly enmediating the world around us. Firstly, we might consider the growing phenomena of what are called 'web bugs' (also known as 'web beacons'), that is, computer programming code that is embedded in seemingly benign surfaces but is actively and covertly collecting data and information about us.[17] As Madrigal explains:

> This morning, if you opened your browser and went to NYTimes.com, an amazing thing happened in the milliseconds between your click and when the news about North Korea and James Murdoch appeared on your screen. Data from this single visit was sent to 10 different companies, including Microsoft and Google subsidiaries, a gaggle of traffic-logging sites, and other, smaller ad firms. Nearly instantaneously, these companies can log your visit, place ads tailored for your eyes specifically, and add to the ever-growing online file about you […] the list of companies that tracked my movements on the Internet in one recent 36-hour period of standard web surfing: Acerno. Adara Media. Adblade. Adbrite. ADC Onion. Adchemy. ADiFY. AdMeld. Adtech. Aggregate Knowledge. AlmondNet. Aperture. AppNexus. Atlas. Audience Science […] And that's just the As. My complete list includes 105 companies, and there are dozens more than that in existence.[18]

Web bugs are automated data collection agents that are secretly included in the online pages that we browse. Often held within a tiny one pixel frame or image, which is therefore far too small for the naked eye to see, they execute code to secrete cookies onto your computer so that they can track user behavior, and also send various information about the user back to their servers.

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16. David M. Berry, *The Philosophy of Software: Code and Mediation in the Digital Age*, London: Palgrave, 2011.
17. These include HTTP cookies, and Locally Stored Objects (LSOs) and document object model storage (DOM Storage).
18. Alexis C. Madrigal, 'I'm Being Followed: How Google – and 104 Other Companies – Are Tracking Me on the Web', *The Atlantic*, 29 February 2012, http://theatlantic.com/technology/archive/2012/02/im-being-followed-how-google-and-104-other-companies-are-tracking-me-on-the-web/253758/.

Originally designed as 'HTTP state management mechanisms' in the early 1990s, these data storage processes were designed to enable web pages and sites to store the current collection of data about a user, or what is called 'State' in computer science, known as 'web bugs for web 1.0'.[19] They were aimed at allowing website designers to implement some element of memory about a user, such as a current shopping basket, preferences, or username. It was a small step for companies to see the potential of monitoring user behavior by leaving tracking information about browsing, purchasing, and clicking behavior through the use of these early 'cookies'.[20] The ability of algorithms to track behavior, and collect data and information about users raises important privacy implications but also facilitates the rise of so-called behavior marketing and nudges.[21] These technologies have become much more sophisticated in light of Web 2.0 technologies and developments in hardware and software; in effect, web bugs for web 2.0.[22]

Fortunately, we are seeing the creation of a number of useful software projects to allow us to track the trackers: Collusion, Foxtracks, and Ghostery, for example.[23] If we look at the Ghostery log for the ChartBeat company[24] it is described as:

> Provid[ing] real-time analytics to web sites and blogs. The interface tracks visitors, load times, and referring sites on a minute-by-minute basis. This allows real-time engagement with users giving publishers an opportunity to respond to social media events as they happen. ChartBeat also supports mobile technology through APIs.[25]

Web bugs perform these analytics by running code in the browser without the knowledge of the user, which if it should be observed, looks extremely complicated.[26] Newer web bugs (Web 2.0) are much larger in size than their previous incarnation as tiny snippets of code or one pixel image files.[27] They are also much less screenic, relying

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19. Jaromir Dobias, 'Privacy Effects of Web Bugs Amplified by Web 2.0', in S. Fischer-Hübner et al. (eds) *Privacy and Identity Management for Life*, London: Springer, 2010, p. 245.

20. 'Cookies are small pieces of text that servers can set and read from a client computer in order to register its "state." They have strictly specified structures and can contain no more than 4 KB of data each. When a user navigates to a particular domain, the domain may call a script to set a cookie on the user's machine. The browser will send this cookie in all subsequent communication between the client and the server until the cookie expires or is reset by the server'. (Sonal Mittal, 'User Privacy and the Evolution of Third-party Tracking Mechanisms on the World Wide Web', thesis, Department of Computer Science, Stanford University, May 2010, http://www.stanford.edu/~sonalm/Mittal_Thesis.pdf, p. 10).

21. For a behaviourist approach see, Nir Eyal, 'How To Manufacture Desire', *TechCrunch*, 4 March 2012, http://techcrunch.com/2012/03/04/how-to-manufacture-desire/.

22. Dobias, 'Privacy Effects of Web Bugs Amplified by Web 2.0', p. 245.

23. Ghostery describes itself on its 'about' page: 'Be a web detective. Ghostery is your window into the invisible web – tags, web bugs, pixels and beacons that are included on web pages in order to get an idea of your online behavior. Ghostery tracks the trackers and gives you a roll-call of the ad networks, behavioral data providers, web publishers, and other companies interested in your activity' ('About Ghostery', Ghostery, 2012, http://www.ghostery.com/about). Also see, https://disconnect.me/.

24. See, http://chartbeat.com.

25. 'About ChartBeat', Ghostery, 2012, http://www.ghostery.com/apps/chartbeat.

26. For an example see, http://static.chartbeat.com/js/chartbeat.js.

27. Also see examples at: Chartbeat, http://static.chartbeat.com/js/chartbeat.js; Google Analytics, http://www.google-analytics.com/ga.js; Omniture, http://o.aolcdn.com/omniunih.js; Advertising.com, http://o.aolcdn.com/ads/adsWrapper.js.

not as greatly on requests for specific image files to count usage, than processual and agentic, often containing complex software functionality that runs within the browser (or app) on the user's device. It is noticeable that this code is also extremely opaque and difficult to understand, even for experienced computer programmers. Indeed, one suspects an element of obfuscation, a programming technique to reduce the readability of the code and that is used to essentially shield the company from observation. In checking a number of web bugs on a variety of sites so far, I have been unable to find a web bug that supplies any commentary on what exactly the code is doing, beyond a short privacy policy statement. Again Ghostery can be useful in providing some general information on a particular bug (of the thousands that are now thought to be available).[28] As Madrigal reports:

> In essence, [the Network Advertising Initiative] argued that users do not have the right to *not* be tracked. "We've long recognized that consumers should be provided a choice about whether data about their likely interests can be used to make their ads more relevant," [they] wrote. "But the NAI code also recognizes that companies sometimes need to continue to collect data for operational reasons that are separate from ad targeting based on a user's online behavior." Companies "need to continue to collect data," but that contrasts directly with users desire "not to be tracked".[29]

These web bugs, beacons, pixels, and tags, as they are variously called, form part of the dark-net surveillance network that users rarely see, even though it is profoundly changing their experience of the internet in real-time by attempting to second guess, tempt, direct, and nudge behavior in particular directions.[30] Ghostery ranked the web bugs in 2010 and identified these as the most frequently encountered (above average): Revenue Science (250x), OpenX (254x), AddThis (523.6x), Facebook Connect (529.8x), Omniture (605.7x), Comscore Beacon (659.5x), DoubleClick (924.4x), Quant-Cast (1042x), Google Adsense (1452x), Google Analytics (3904.5x).[31] As can be seen in terms of relative size of encounter, Google is clearly the biggest player in the area of the collection of user statistics by a long distance. This data is important because, as JP Morgan's Imran Khan explained, a unique visitor to each website at Amazon (e-commerce) is generating $189 per user, at Google (search) it is $24 per user, and although Facebook (social networking) is only generating $4 per user, this is a rapidly growing number.[32] Keeping and holding these visitors, through real-time analytics, customer history, and behavioral targeting, etc. is increasingly extremely profitable. In-

28. 'About Chartbeat'.
29. Alexis C. Madrigal, 'I'm Being Followed: How Google – and 104 Other Companies – Are Tracking Me on the Web'.
30. For example the page scraping of data from open access web pages using 'robots' or 'spiders' in order to create user repositories of data through aggregation and data analysis. Interestingly this is the way Google collects the majority of the index data it uses for its search results. This is also becoming a digital method in the social sciences and raises particular digital research ethics that have still to be resolved. See, https://www.issuecrawler.net/; http://socscibot.wlv.ac.uk/; and http://webatlas.fr/wp/navicrawler/.
31. Andy Kahl, 'Ghostrank Planetary System', *Ghostery*, 5 April 2011, http://purplebox.ghostery.com/?p=1016021670.
32. Jay Yarrow, 'Chart of the Day: Here's How Much A Unique Visitor Is Worth', *Business Insider*, 5 January 2011, http://www.businessinsider.com/chart-of-the-day-revenue-per-unique-visitor-2011-1.

deed, Amazon has calculated that knowing and responding to customer needs is very important for profitability and 'that a page load slowdown of just one second could cost it $1.6 billion in sales each year'.[33] Correspondingly, 'Google has calculated that by slowing its search results by just four tenths of a second they could lose 8 million searches per day – meaning they'd serve up many millions fewer online adverts', and hence make less money.[34]

Companies that are more explicitly collecting data and information often have data collection and privacy policies in place, for example Facebook[35] or Google.[36] An analysis by Cranor and McDonald found that it would take on average 201 hours per year to read privacy policies that users find in their everyday use of the internet, and which are extremely complicated legal documents.[37] Unsurprisingly, few read them. Users are therefore often agreeing to certain data usage, collection, reselling, and aggregation without explicitly being aware of it. For example, whilst you are logged in Facebook collects,

> […] a timestamped list of the URLs you visit and pair it with your name, list of friends, Facebook preferences, email address, IP address, screen resolution, operating system, and browser. When you're logged out, it captures everything except your name, list of friends, and Facebook preferences. Instead, it uses a unique alphanumeric identifier to track you.[38]

Of course, web bugs are a form of surveillance, and indeed it is no surprise that web bugs perform part of the tracking technologies used by companies to monitor staff. For example, in 2006 Hewlett Packard used web bugs from readnotify.com to trace insider leaks to the journalist Dawn Kawamoto and later confirmed in testimony to a U.S. House of Representatives subcommittee that it's 'still company practice to use e-mail bugs in certain cases'.[39]

As can be seen, this is an extremely textured environment that currently offers little in terms of diagnosis or even warnings to the user. The industry, which prefers the term 'clear GIF' to web bug, certainly is keen to avoid regulation and keeps very much to itself in order to avoid raising too much unwarranted attention. Some of the current discussions over the direction of regulation on this issue have focused on the 'do not track' flag, which would signal a user's opt-out preference within an HTTP header. Unfortunately very few companies respect the do not track header and there is currently no legal requirement that they do so in the U.S., or elsewhere.[40] There have been some

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33. Kit Eaton, 'How One Second Could Cost Amazon $1.6 Billion In Sales', *Fast Company*, 14 March 2012, http://www.fastcompany.com/1825005/impatient-america-needs-faster-intertubes.
34. Eaton, 'How One Second Could Cost Amazon $1.6 Billion In Sales'.
35. See, for example, Facebook's 'Data Use Policy', http://www.facebook.com/about/privacy/.
36. See, for example, Google's 'Privacy Policy', http://www.google.com/policies/privacy/.
37. Aleecia M. McDonald and Lorrie Faith Cranor. 'The Cost of Reading Privacy Policies', *I/S: A Journal of Law and Policy for the Information Society* (2008 Privacy Year in Review issue), http://lorrie.cranor.org/pubs/readingPolicyCost-authorDraft.pdf.
38. Dylan Love, 'Here's the Information Facebook Gathers on You as You Browse the Web', *Business Insider*, 18 November 2011, http://www.businessinsider.com/facebook-tracking-2011-11.
39. Joris Evers, 'How HP Bugged E-mail', *CNET*, 28 September 2006, http://news.cnet.com/How-HP-bugged-e-mail/2100-1029_3-6121048.html.
40. 'Tracking Protection Working Group', W3C, 2012, http://www.w3.org/2011/tracking-protection/.

moves towards self-regulation in the technology industry with a recent report from the U.S. Federal Trade Commission.[41] However, in the current debate over the EU ePrivacy Directive, the Article 29 Working Party (A29 WP) has stated that 'voluntary plans drawn up by Europe's digital advertising industry representatives, the European Advertising Standards Alliance (EASA) and IAB Europe, do not meet the consent and information requirements of the recently revised ePrivacy Directive'.[42] As such, legislation may be introduced into the EU before elsewhere.

With the greater use of computational networked devices, from mobile phones to GPS systems, these forms of tracking systems will only become more invasive and more aggressive in collecting data from our everyday life. Indeed, it is unsurprising to find that Americans, for example, are not comfortable with the growth in use of these tracker technologies. Pew found that,

> 73 percent of Americans said they would "not be okay" with being tracked (because it would be an invasion of privacy); only 23 percent said they'd be "okay" with tracking (because it would lead to better and more personalized search results) […] Despite all those high-percentage objections to the idea of being tracked, *less than half of the people surveyed* – 38 percent – said they knew of ways to control the data collected about them.[43]

This contradiction between the ability of these computational systems and surfaces to supply a commodity to the user, and the need to raise income through the harvesting of data which is in turn sold to advertisers and marketing companies, shows that this is an unstable situation. It also serves to demonstrate the extent to which users are just not aware of the subterranean depths of their computational devices and the ability for these general computing platforms to disconnect the user interface from the actual intentions or functioning of the device, whilst giving the impression to the user that they remain fully in control of the computer. Indeed, this disconnect between the enmediation of software, and previous attempts to think in terms of the concept of remediation, are important in highlighting how software is different from previous media. As Garber observes,

> underground network, surface illusion […] How much do we actually want to know about this stuff? Do we truly want to understand the intricacies of data-collection and personalization and all the behind-the-screen work that creates the easy, breezy experience of search [...] or would we, on some level, prefer that it remain as magic?[44]

41. Hayley Tsukayama, 'FTC Releases Final Privacy Report, Says "Do Not Track" Mechanism May be Available by End of Year', *Washington Post*, 26 March 2012, http://www.washingtonpost.com/business/technology/ftc-releases-final-privacy-report-says-do-not-track-mechanism-may-be-available-by-end-of-year/2012/03/26/gIQAzi23bS_story.html.
42. Jennifer Baker, 'European Watchdog Pushes for Do Not Track Protocol', *PCWorld*, 6 March 6 2012, http://www.pcworld.com/businesscenter/article/251373/european_watchdog_pushes_for_do_not_track_protocol.html.
43. Megan Garber, 'Americans Love Google! Americans Hate Google!', *The Atlantic*, 9 March 2012, http://theatlantic.com/technology/archive/2012/03/americans-love-google-americans-hate-google/254253/. For more information on the Pew study on 'Search Engine Use 2012' see, http://pewinternet.org/Reports/2012/Search-Engine-Use-2012/Summary-of-findings.aspx.
44. Garber, 'Americans Love Google! Americans Hate Google!'

Indeed, as Aron reports, 'up to 75 per cent of the energy used by free versions of Android apps is spent serving up ads or tracking and uploading user data'.[45] That is, on free versions of popular apps most of the processing work in the app is spent monitoring user activities and sending it back home to servers.[46] This ability for code/software to monitor the user covertly and even obscure its processing activities will undoubtedly become a growing political and economic as well as technical issue.[47]

Lifestreams

Lastly, I want to turn to connect these developments in web bugs to the use of self-monitoring technologies called lifestreaming, or the notion of the quantified self.[48] These have expanded in recent years as the 'real-time stream' platforms, like Twitter and Facebook, have grown. Indeed, some argue that 'we're finally in a position where people volunteer information about their specific activities, often their location, who they're with, what they're doing, how they feel about what they're doing, what they're talking about […] We've never had data like that before, at least not at that level of granularity'.[49] This has been usefully described by the *Economist*, who argue that the

> idea of measuring things to chart progress towards a goal is commonplace in large organisations. Governments tot up trade figures, hospital waiting times and exam results; companies measure their turnover, profits and inventory. But the use of metrics by individuals is rather less widespread, with the notable exceptions of people who are trying to lose weight or improve their fitness [...] But some people are doing just these things. They are an eclectic mix of early adopters, fitness freaks, technology evangelists, personal-development junkies, hackers and patients suffering from a wide variety of health problems. What they share is a belief that gathering and analysing data about their everyday activities can help them improve their lives – an approach known as "self-tracking", "body hacking" or "self-quantifying".[50]

This phenomenon of using computational devices to monitor health signals and feed them back into calculative interfaces, data visualizations, and real-time streams, etc. is the next step in social media. This closes the loop of personal information online, which, although it remains notionally private, is stored and accessed by corporations who wish to use this biodata for data mining and innovation surfacing.

45. Jacob Aron, 'Free Apps Eat up Your Phone Battery Just Sending Ads', *New Scientist*, 18 March 2012, http://www.newscientist.com/article/mg21328566.400-free-apps-eat-up-your-phone-battery-just-sending-ads.html.
46. Abhinav Pathak, Y. Charlie Hu and Ming Zhang, 'Where is the Energy Spent Inside My App? Fine Grained Energy Accounting on Smartphones with Eprof', Eurosys 2012, 2012, http://research.microsoft.com/en-us/people/mzh/eurosys-2012.pdf.
47. See the following commercial examples of user control software for governing public exposure to trackers, web bugs, and compactants, although the question is, why you would choose to trust them?: https://cloudcapture.org/register/ and http://www.abine.com.
48. See, http://quantifiedself.com/.
49. Randy Rieland, 'So What Do We Do With All This Data?', *Smithsonian*, 23 January 2012, http://blogs.smithsonianmag.com/ideas/2012/01/so-what-do-we-do-with-all-this-data/.
50. 'Counting Every Moment', *The Economist,* 3 March 2012, http://www.economist.com/node/21548493.

Lifestreams were originally an idea from David Gelernter and Eric Freeman in the 1990s,[51] which they described as:

> […] a time-ordered stream of documents that functions as a diary of your electronic life; every document you create and every document other people send you is stored in your lifestream. The tail of your stream contains documents from the past (starting with your electronic birth certificate). Moving away from the tail and toward the present, your stream contains more recent documents – papers in progress or new electronic mail; other documents (pictures, correspondence, bills, movies, voice mail, software) are stored in between. Moving beyond the present and into the future, the stream contains documents you *will* need: reminders, calendar items, to-do lists. You manage your lifestream through a small number of powerful operators that allow you to transparently store information, organize information on demand, filter and monitor incoming information, create reminders and calendar items in an integrated fashion, and "compress" large numbers of documents into overviews or executive summaries.[52]

Gelernter originally described these as 'chronicle streams',[53] highlighting their narrative and temporal dimensions related to the storage of documentation and texts. Today we are more likely to think of them as 'real-time streams' and the timeline functions offered by systems like Twitter, Facebook, and Google+. These are increasingly the model of interface design that is driving the innovation in computation, especially in mobile and locative technologies. However, in contrast to the document-centric model that Gelernter and Freeman described, there are also the micro-streams of short updates, epitomized by Twitter, which has short text-message sized 140 character updates. Nonetheless this is still enough text space to incorporate a surprising amount of data, particularly when geo, image, weblinks, and so forth are factored in. Starting in 1989, Stephen Wolfram was certainly one of the first people to systematically collect their data. He explains,

> So email is one kind of data I've systematically archived. And there's a huge amount that can be learned from that. Another kind of data that I've been collecting is keystrokes. For many years, I've captured every keystroke I've typed—now more than 100 million of them.[54]

This kind of self-collection is certainly becoming more prevalent, and in the context of reflexivity and self-knowledge, it raises interesting questions. The scale of data that is collected can also be relatively large and unstructured. Nonetheless, better data

51. Eric Thomas Freeman, 'The Lifestreams Software Architecture', PhD diss., Department of Computer Science, Yale University, May 1997, http://www.cs.yale.edu/homes/freeman/dissertation/etf.pdf; and David Gelernter, 'Time To Start Taking The Internet Seriously', *The Edge*, 3 March 2010, http://www.edge.org/3rd_culture/gelernter10/gelernter10_index.html.
52. Eric Thomas Freeman, 'Welcome to the Yale Lifestreams Homepage!', 2000, http://cs-www.cs.yale.edu/homes/freeman/lifestreams.html.
53. David Gelernter, 'The Cyber-road Not Taken'. *The Washington Post*, April 1994.
54. Stephen Wolfram, 'The Personal Analytics of My Life', Stephan Wolfram blog, 8 March 2012, http://blog.stephenwolfram.com/2012/03/the-personal-analytics-of-my-life/.

management and techniques for searching and surfacing information from unstructured or semi-structured data will no doubt be revealing about our everyday patterns in the future.[55]

This way of collecting and sending data has been accelerated by the use of mobile apps, which are small relatively contained applications that usually perform a single specific function. For example, the Twitter app on the iPhone allows the user to send updates to their timeline, but also search other timelines, check out profiles, streams, and so on. When created as apps, however, they are also able to use the power of the local device, especially if it contains the kinds of sophisticated sensory circuitry that is common in smartphones, to log GPS geographic location, direction, etc. This is when lifestreaming becomes increasingly similar to the activity of web bugs in monitoring and collecting data on users that are active on the network. Indeed, activity streams have become a standard that is increasingly being incorporated into, and across, a number of media and software. An activity stream essentially encodes a user event or activity into a form that can be computationally transmitted and later aggregated, searched, and processed:

> In its simplest form, an activity consists of an *actor*, a *verb*, an *object*, and a *target*. It tells the story of a person performing an action on or with an object – "Geraldine posted a photo to her album" or "John shared a video". In most cases these components will be explicit, but they may also be implied.[56]

This data and activity collection is only part of the picture, however. In order to become reflexive data it must be computationally processed from its raw state, which may be structured, unstructured, or a combination of the two. At this point it is common for the data to be visualized, usually through a graph or timeline, but there are also techniques such as heat-maps, graph theory, and so forth that enable the data to be processed and reprocessed to tease out patterns in the underlying data set. In both the individual and aggregative use case, in other words for the individual user (or lifestreamer) or organization (such as Facebook), the key is to pattern match and compare details of the data, such as against a norm, a historical data set, or against a population, group, or class of others.

The patterned usage is therefore a dynamic real-time feedback mechanism in terms of providing steers for behavior, norms, and so forth, but also offering a documentary narcissism that appears to give the user an existential confirmation and status. Even in its so-called gamification forms, the awarding of competitive points, badges, honors, and positional goods, can more generally be seen as the construction of a hierarchical social structure within the group of users. It also encourages users to think of themselves as a set of partial objects, fragmented 'dividuals', or loosely connected proper-

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55. Wolfram further writes: 'It's amazing how much it's possible to figure out by analyzing the various kinds of data I've kept. And in fact, there are many additional kinds of data I haven't even touched on in this post. I've also got years of curated medical test data (as well as my not-yet-very-useful complete genome), GPS location tracks, room-by-room motion sensor data, endless corporate records – and much much more […] And as I think about it all, I suppose my greatest regret is that I did not start collecting more data earlier'. (Wolfram, 'The Personal Analytics of My Life').
56. ActivityStreamsWG, 'JSON Activity Streams 1.0'.

ties, collected as a time-series of data-points and subject to intervention and control. This can be thought of as a computational care of the self, facilitated by an army of oligopticons[57] in the wider computational environment that observe and store behavioral and affective data. However, this self is reconciled through the code and software that makes the data make sense. The code and software are therefore responsible for creating and maintaining the significance and narratives through a stabilization and web of meaning for the actor.[58]

How might we draw these case studies together to think about living in code and software, and the implications for wider study in terms of research and the theorization of computational society?

Conclusions: Code, Compactants, and Contexts

It seems that a thread runs through web bugs and lifestreaming: data collection, monitoring, and real-time feedback, whether overt or covert. Whilst we can continue to study these phenomena in isolation and think about them in terms of remediation, and indeed there can be very productive knowledge generated from this kind of research, it seems to me that we need to attend to the computationality represented in code and software to better understand such software enmediation.[59]

One of the most interesting aspects of these systems is that humans in many cases become the vectors that enable data transfers, thereby fuelling the computational economy. The concept of enmediation tried to take into account this assemblage quality of computational technology. Users are actively downloading apps that advertise the fact that they collect data and perhaps genuinely find an existential relief or recognition in their movements being watched, recorded, and available for later playback or analysis by 'little brothers'. Web bugs, then, are in many ways lifestreams. Albeit lifestreams that have not been authorized by the user whom they are monitoring. This collection takes place by what we might call *compactants*, which are designed to *passive-aggressively* record data.[60] With the notion of *compactants* (computational actants) I want to draw particular attention to the passive-aggressive feature of computational agents that are collecting information, both in terms of their passive quality – under the surface, relatively benign and silent – but also the fact that they are aggressive in their hoarding of data – monitoring behavioral signals, streams of affectivity, and so forth.[61] The word *compact* also emits useful overtones of having all the necessary components or functions neatly fitted into a small package, and compact as in conciseness in expression. The etymology from the Latin *compact* for closely put together, or joined

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57. Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory*, Oxford: Oxford University Press, 2005.
58. See, http://open.sen.se/ for a particularly good example of this: 'Make your data history meaningful. Privately store your flows of information and use rich visualizations and mashup tools to understand what's going on'. (Sense, Feel. Act. Make sense, 2012, http://open.sen.se/).
59. Berry, *The Philosophy of Software.*
60. Computational actants, drawing the notion of actant from actor-network theory.
61. Of course compactants are not just 'internal' data collection agents. They may also be outside of your data resources and networks probing to get in. This kind of unauthorized access to personal data is on the rise and has been termed the industrialization of data theft. See, Scott M. Fulton,'The Industrialization of Data Theft: Verizon's Staggering New Data', *ReadWrite*, 22 March 2012, http://readwrite.com/2012/03/22/the-industrialization-of-data.

together, also nearly expresses the sense of what web bugs and their related technologies are. The name compactants is also useful in terms of the notion of *companion actants*.[62] Thus 'compactant' is an important middle-range concept in understanding how software enmediates.

Interestingly, compactants are composed in such a way that they can be understood as having a dichotomous structure of data-collection/visualization, each of which is a specific mode of operation. Naturally, due to the huge quantities of data that is often generated, the computational processing and aggregation is often offloaded to the 'cloud', or server computers designed specifically for the task and accessed via networks. Indeed, many viruses, for example, often seek to 'call home' to report their status, upload data, or offer the chance of being updated, perhaps to a more aggressive version of themselves or to correct bugs.

We might also think about the addressee of these wider computational systems made up of arrays or networks of compactants, which in many cases is a future actor. Within the quantified-self movement there is an explicit recognition that the 'future self' will be required to undo bad habits and behaviors of the present self. Or putting it another way, there is a dimension to computational devices that seems to require that software is not just mediation of the past and present, but enmediation of the probabilistic future. That is, there is an explicit normative context to a *future* self, who you, as the *present* self, may be treating unfairly, immorally, or without due regard to what has been described as 'future self continuity'.[63] This inbuilt tendency toward the *futural* is a fascinating reflection of the internal temporal representation of time within computational systems, which is enmediated as time-series structured streams of real-time data, often organized as lists. Therefore, the past (as stored data), present (as current data collection, or processed archival data), and future (as both the ethical addressee of the system and potential provider of data and usage), are often deeply embedded in the code that runs these systems. In some cases the future also has an objective existence as a probabilistic projection presented through contextual computing, literally a *code-object*, which is updated in real-time and which contains the major features of the future state represented as a model; computational weather prediction systems and climate change models are both examples of this.

There are many examples of how attending to the code and software that enmediates many of the life, memory, and biopolitical systems and industries of contemporary society could yield similarly revealing insights into both our usage of code and software, and also the structuring assumptions, conditions, and affordances that are generated. Our use of computational models is growing, and our tendency is to confuse the screenic representation visualized by code/software with what we might call the real – not to mention our failure to appreciate the ways in which code's enmediation is co-constructive of, and deeply involved in, the stabilization of everyday life today. Even so, within institutional contexts, code/software has not been fully incorporated

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62. Donna Haraway, *The Companion Species Manifesto: Dogs, People, and Significant Otherness*, Chicago: Prickly Paradigm Press, 2003.
63. Alina Tugend, 'Bad Habits? My Future Self Will Deal With That', *New York Times*, 24 February 2012, http://www.nytimes.com/2012/02/25/business/another-theory-on-why-bad-habits-are-hard-to-break-shortcuts.html?_r=3&pagewanted=all.

into the specific logics of these social systems, and in many ways undermines these structural and institutional forms.[64] We must remain attentive to the fact that software engineering itself is a relatively recent discipline and its efforts at systematization and rationalization are piecemeal and incomplete, as the many hugely expensive software system failures attest. Of course, this code/software research is not easy, the techniques needed are still in their infancy, and whilst drawing on a wide range of scholarly work from the sciences, social sciences, and the arts and humanities, we are still developing our understanding. But this should give hope and direction to the critical theorists, both of the present looking to provide critique and counterfactuals, but also *of* the future, as code/software is a particularly rich site for intervention, contestation, and the *unbuilding* of code/software systems.[65]

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64. What we might call 'outsider code' or 'critical code' is an interesting development in relation to this. A number of websites offer code that data scrapes or screen scrapes information to re-present and analyze it for the user. Some examples include the Parltrack software, which is designed to improve the transparency of the EU parliamentary legislative process, http://parltrack.euwiki.org/; and TheyWorkForYou, which screen scrapes the UK Parliamentary minutes, http://www.theyworkforyou.com/.

65. Here I tentatively raise the suggestion that a future critical theory of code and software is committed to *un*building, *dis*assembling, and *de*formation of existing code/software systems, together with a necessary intervention in terms of a positive moment in the formation and composition of future and alternative systems.

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**SOCIAL MEDIA,
OR TOWARDS A POLITICAL
ECONOMY OF PSYCHIC LIFE**

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GANAELE LANGLOIS

SOCIAL   MEDIA   PSYCHIC   LIFE
PROFIT   COMMUNICATION   MORE
PLATFORMS   USERS   INFORMATION
OTHER   WORLD   LIVES
POLITICAL   MEANINGFUL   BEING

On what basis should we develop alternatives to Facebook and other for-profit social networking sites? A great deal of discussion and a large number of projects presented at the Unlike Us Amsterdam conference in 2012 focused on alternatives to Facebook that disentangle the social from the for-profit motive. Overall, alternatives to Facebook have been focused on the politics and rights of users, with special attention to rebuilding privacy on social networks, from the right to anonymity to re-empowering users to be able to decide what kind of data can be collected on them and for what purposes.

While crucial, the question of privacy is not the only one that needs to be addressed. The uniqueness of social media can be examined not so much as content delivery platforms, but rather as platforms through which we live our lives. Social media, contrary to the media of old, are not in the business of developing content: social media users are the main content creators, be they professional app developers or high school students. What social media do, which is unique to them and radically different from other media, is that they offer us a set of tools and practices to make content meaningful to us, to our likes, to our life.

Social media, then, are in the business of making us live our lives by helping us find, foster and maintain meaningful connections to information, people, movements, and in all, the world at large. This is perhaps why we have grown so attached to them in their short period of existence.

This conception of social networks as platforms for living begs for further exploration. Living in this specific context has to do with the constant search for meaning: meaningful connections, meaningful information, meaningful action. The kind of living I am referring to here is mundane, but also philosophical, and as I would particularly like to argue here, psychological. What happens, though, when our psychic lives have to be mediated by information technologies that primarily serve a for-profit motive? That psychic life has become a new market to be invested in is bound to raise some concerns. At the same time, one should not deny the potential for developing new spaces that make use of information and network technologies in ways that are more at the service of human users: technologies for fostering creativity and, in psychoanalytic terms, authenticity.

Platforms for Living
'Why won't more people give up on Facebook now that we know how bad it is for privacy?' Such a question, which was raised in one of the discussion periods of the Unlike Us Amsterdam conference, is somewhat tricky to tackle for any critic of social media focused on thinking about alternatives. Indeed, the dangers of the likes of Face-

book for privacy are routinely making the headlines and yet, Facebook is getting more users. Answers to this conundrum usually include the stickiness of for-profit social media as now essential components of human communication; the loss of connection that would happen if one was to give up the main platforms through which to be in touch with friends and family; the uncanny and widespread addiction to constantly changing flows of updates; and the pervasive attitude that privacy does not matter as most people do not feel like they have something to hide.[1] Or to put it simply, for-profit social media are just too much a part of our lives for us to do without, and too complicated and expensive for us to construct alternatives.

All these answers suggest that social media hold a new kind of power, that they are more than just tools, or means of communication. Giving up social media is not on the same level as, say, giving up watching TV or playing computer games. What is at stake is more than entertainment or information gathering: social media allow us to carry on living and provide a platform for experiencing friendship, love, utter boredom, and loneliness in no particular order, in short, the very stuff of life. Without them as a constant presence on our computers, tablets, or cell phones, we would be missing out, quite literally, on our lives. It is this point – that social media are platforms through which we live our lives – that I would like to explore here.

Social media are both incredibly dangerous and incredibly liberating because their main investment is in lives being lived. What we need now is a new framework to understand the relations between social media and life, and in particular, the ways in which social media operate within the realms of not only social or cultural life, but also psychic life: not only our practices and knowledge, but also our emotions, affects, desires and fears, both extraordinary and mundane. Social media, and this is what I focus on here, operate at the moment of the opening up of the psyche to the world: the moments when we seek an outside confirmation of what it is we are experiencing inside, the moments when we seek out external contact in order to feed our psychic needs for comfort, support, excitement, and reassurance.

Such a perspective on the psychic process of opening up to the world has mostly been developed within psychoanalysis, and under the label of a 'relational' approach.[2] The relational approach includes a wide array of theoretical perspectives that start with the premise that relationships to other human beings are at the core of the development of the psyche.[3] These theories, in short, argue that subjectivity and personal identity formation cannot exist without intersubjectivity, without an other subject to recognize us as individual subject, and relate to us as such.[4] From a psychoanalytic treatment perspective, becoming a robust individual capable of feeling a wide range of emotions, of being creative and resourceful, requires having been in relation with benevolent figures.

1. Daniel Solove, '"I've Got Nothing to Hide" and Other Misunderstandings of Privacy', Social Science Research Network, 12 July 2007, http://papers.ssrn.com/abstract=998565.
2. Stephen Frosh, *Psychoanalysis Outside the Clinic*, London: Palgrave Macmilan, 2010, p. 32.
3. D.W. Winnicott, *Playing and Reality*. 2nd edition, London: Routledge, 2005.
4. Jessica Benjamin, *Shadow of the Other: Intersubjectivity and Gender in Psychoanalysis*, 1st edition, London: Routledge, 1997; Jessica Benjamin, *Like Subjects, Love Objects: Essays on Recognition and Sexual Difference*, New Haven: Yale University Press, 1998.

How do social media invest in psychic life? Social media are structuring platforms linking language, technology, economics, and psychology in very unique ways: language now is both a reflection of the psyche as well as it is a set of informational technologies. Thoughts, affects, and emotions do not simply emanate from the human psyche anymore, they are valuable products that can now be produced by search engine and recommendation software in an environment that makes a profit out of people expressing themselves and living their lives.

As such, most of the popular social media, with the exception of Wikipedia, have been invaded by the for-profit motive, and the informational capacity of social media makes it possible to open up psychic life – the life of intangible thoughts, affects and emotions - to marketization. It is time, therefore, to develop a political economy of psychic life: we need to study the structuration of power formations serving specific interests (i.e. commercial profit-making) through the building of alliances of diverse political, economic, cultural, technological, linguistic, and psychic processes. A political economy of social media specifically interrogates how these dynamics of structuration are organized and patterned through the interfaces, data repository, and information processing systems developed within and across social media platforms. Such an analytical project will make it possible to identify alternatives to social media with regards to psychic involvement.

Free Communication and Liberated Lives?
Social media, and in particular the most popular platforms such as the parts of the Google universe (Blogger, YouTube, Google +), along with social networking sites (Facebook), and micro-blogging platforms (Twitter), have radically deconstructed the links between free communication as the unfettered exchange of information and positive social change, and collective and individual empowerment and transformation. Social media seemingly reconcile the promise of democratic, free, and uncensored communication with for-profit ventures. Now, as the mainstream story goes, democratic revolutions such as the 2011 Arab Spring are rendered possible by giant social media platforms, in particular Facebook and Twitter.

It thus seems that meaningful connections, creative potential, and transformative actions (in short, the stuff that makes life worth living), go hand-in-hand with the for-profit motive. As the story goes, it does not matter what kind of social media is being developed: whether for-profit or not-for-profit, social media mean undeniable progress towards more egalitarian and socially relevant forms of communication.

The problem with such an equation between unfettered communication and positive transformation is that it only looks at one aspect of social media: the communication among human users at the interface level. Social media are much more than that: software and informational machines communicate with users as well, particularly through search suggestions, targeted recommendations, and automated updates. Furthermore, communication on social media is not simply at the interface level, it also takes place at the back-end through the trafficking of user data in order to generate large amounts of profiling information that can then be sold to third parties.

As such, we now need to consider that free communication among users should not be entirely equated with positive transformation and liberation: after all, the content I

put on for-profit social media ceases to belong to me, and is captured and monitored for purposes other than what I intended. I might be free to communicate, but what I express can be privatized, put under surveillance and monitored without my consent.

One could argue anyway that the communication among users is still important and can evolve and circulate in the human sphere and have deep social, political, and psychic repercussions regardless of what data capture system is being used. However, social media play a crucial role in trying to establish the meaningfulness of information. Social media do not simply display information, they rank it from the more meaningful to the less meaningful. Social media have different logics of ranking, but increasingly they have to do with personalization, that is, closeness in a network of connections: what is meaningful is what is near me, speaks my language, is liked by my network, and fits with my views and those of my peers. In so doing, the politics of human communication are not simply about what is being said, or put out there: they have to do increasingly with the informational logics of social media, and how social media distribute, hierarchize, and attribute meaningfulness to information.

Given this new context, we should be weary of the once unquestionable link between free communication and transformation for the better, although for-profit social media are based on this assumption: the ideology of social media is that the more the platform knows about a user, the more it can serve his or her needs, suggest discovery paths, and find answers. As such, social media are not just venues for sharing information and communication – they offer patterns and guidance about how to go about our daily lives and our being with others. Social media are mundane, ubiquitous and psychic. Their purpose is to tell us what we should do, what we want, how we should feel, who should be our next friend, what is our next favorite TV show, novel or movie, and which political cause is worthy of our attention, etc.

One of the paradoxes of social media, however, is that in their constant search for meaningfulness, they end up making communication meaningless. This perhaps is more of a Western 'so what?' phenomenon: so many activists and citizens have a presence on social media, yet it does not often lead to any kind of meaningful change. Meaningful is the keyword here: in the deconstruction of the politics of communication that happens through social media, simply saying something is not enough. In order for any kind of human communication to be meaningful, it has to be noticed by others, and then lead to some kind of political action, or social change, or shift in awareness.

The problem is that communication on social media does not always lead to transformative practices and meaningful actions. More often than not, raising awareness about an issue just stagnates at the level of never-ending discussion. While I do not want to suggest that communication tactics could not be put in place to address this phenomenon, there is a built-in paradoxical logic of social media platforms: in order to retain the attention of users, the search for meaningfulness has to be never-ending, and any kind of gratification needs to be temporary or constantly delayed. As such, the constant circulation of information in networks that are cut off from real transformative possibilities gives rise to meaninglessness.

Furthermore, the articulation of data gathering and specific search logics for personalization purposes is not the same as mirroring the unknown desires and psychic needs of users, although for-profit social media do a very good job at convincing us of this. In particular, social media suffer from an excess of positive connectivity: the assumption is that a happy individual is one who is constantly connecting with others online. The right to be left alone, to look at a distance, to be weary, in short, to have multiple kinds of connection with others, including negative connections, tends to not exist on for-profit social media.

In all, social media have inserted themselves as the media who can help in the unfolding of our lives, although their success in doing so is sometimes negated by their for-profit motive. Rather than in the therapeutic situation, where we are mainly encouraged to rely on ourselves with the support of a benevolent other for change, social media allow us to expel our uncertainties and desires, to literally find the answer elsewhere. Our critical interest, then, should be placed on those moments when social media seek to meet and match-up with the human psyche through personalized recommendations, suggestions, and admonitions.

From Machinic Subjectivation to Psychic Investment

Social media platforms teeter on a fine line, between enriching our lives and, in their ever-growing knowledge about us, overly controlling them. It is not possible to deny one of these two aspects of social media, as they are intrinsically linked: the economic success of for-profit social media is based on users' continuous search for and struggle with meaningfulness, connection, and self-discovery. Social media make use of communication, of information networks, of data-mining to produce ways in which we can engage in this search. What is needed is a framework to understand what life on social media has become, and in particular the new contours of such a problematic articulation of capitalist motives and psychic life through software platforms and data networking.

For these reasons, I would like to further explore the trafficking of data at the back-end of social media but in so doing to turn away from questions of software and network architecture towards the question of life: how do social media insert themselves within the process of self-discovery through opening up to the world? Such an exploration is already well under way thanks to autonomist works that have identified the rise of new forms of capitalism that financially and technologically invest in creativity, intelligence, knowledge, and language for economic success.

The trafficking of user data is about the management of subjectivation.[5] Looking at subjectivation means looking at the processes through which we become specific subjects. Subjectivation takes place when we are educated, invited, forced, coerced, or convinced to try to fit within specific power formations. In the for-profit social media environment this actualization can take the form of product purchases that are recommended to us on our Gmail or Facebook account, or having to watch advertisements

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5.   Maurizio Lazzarato, *The Making of the Indebted Man: An Essay on the Neoliberal Condition,* trans. Joshua David Jordan, New York: Semiotext(e), 2012; Franco 'Bifo' Berardi, *The Soul at Work: From Alienation to Autonomy*, trans. Francesca Cadel and Giuseppina Mecchia, New York: Semiotext(e), 2009; Paolo Virno, *A Grammar of the Multitude: For an Analysis of Contemporary Forms of Life*, trans. Isabella Bertoletti, James Cascaito and Andrea Casson, 1st US edition, New York: Semiotext(e), 2004.

on YouTube before being able to watch the video of our choice. In these cases, we are strongly invited to fit in with the customer subject position, and to realize that one of our central modes of proving our existence is through the buying of commodities.

However, such a classical form of consumer subjectivation is but one aspect of what is taking place on for-profit social media. Subjectivation also means fitting within the logic of social media platforms through continuous status updates, accepting recommendations, clicking on links, etc., overall, through continuous use of the platform. Such good behaviors can be rewarded: if I invite other people to use a social media platform, then I can get bigger storage for my account or credit for purchases, and other perks. Subjectivation takes place when we are invited and encouraged to adopt specific modes of usership – ways of expressing ourselves, ways of valuing the informational logic of the platform and its recommendation system, and ways of relating to others. One of the biggest perks of being a 'good' user is to be recognized and seen by the rest of the network: the more I contribute on Facebook and interact with peers and accept lack of control over my own data, the more prominently my contributions will be featured, therefore, the more popular I will become; the more I review products on other social media platforms, the more I will be presented as a trustworthy contributor.

This reward system allows for a sense of empowerment of the user, of greater possibilities, and is in keeping with Foucault's definition of power as productive rather than entirely repressive.[6] The subject, in this case, the social media user, has to conform to some rules and ways of doing things in order to have the possibility to enrich his or her self. The influence of autonomist thought is key to understanding the new form of capitalism that is developed through social media: one that feeds directly off the subjective life of users in order to create the ideal conditions of consumption.[7] Social media are not about the selling of commodities, they are about creating the attitudes and subject positions that can be mined for commercialization purposes.

While subjectivation is an important site of analysis, we should keep in mind that the concept of the subject is not the same as psychic life. Subjectivation can operate on multiple levels: psychic, but also biological, political, and economic among others. Psychic life, in turn, cannot be reduced to being one aspect of the process of subjectivation: it also includes the multiple reactions, both conscious and unconscious, that take place as we encounter the world and derive from it models of behavior, expectations, and beliefs.[8]

Looking at the psychic reactions to processes of subjectivation invites us to analyze a whole realm of human experience that has been so far mostly discussed within the field of psychoanalysis. In relational theories, one way to analyze the relationships between subjectivation and psychic life is through the concept of the false self.[9] A false

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6. Michel Foucault, *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977*, New York: Vintage, 1980.
7. Maurizio Lazzarato, *Révolutions Du Capitalisme*, Paris: Empêcheurs de Penser en Rond, 2004.
8. Judith Butler, *The Psychic Life of Power: Theories in Subjection*, 1st edition, Stanford: Stanford University Press, 1997, p. 86.
9. D.W. Winnicott, 'Ego Distortion in Terms of True and False Self', in D.W. Winnicott, *The Maturational Process and the Facilitating Environment: Studies in the Theory of Emotional Development*, New York: International UP Inc., 1965, pp. 140-152.

self is created to fit into external pressures that one cannot control and the true self – the self capable of creativity, of forging meanings, of transforming itself – is buried. What that entails, though, is a pervasive feeling of living an empty and depleted life marked by mental health issues such as depression, anguish, stress and paranoia. What I would like to argue next, then, is that depression, dissociation, desires, feelings of satisfaction, as well as the search for attachment figures, the navigating of relationships to the Other, now have to be included in any critical approach to social media, including a political economy one.

Such a bridge between questions regarding the psyche and critical studies is well under way: theories of subjectivity have been combined with psychoanalytic theory,[10] while psychic life, starting with Deleuze and Guattari's *Anti-Oedipus,*[11] along with Guattari's work on schizo-analysis,[12] has been taken out of the confines of the psychoanalytical setting to become a matter of politics and technology. In all, the turn towards immaterial forms of labor has raised greater awareness of the state of the psyche as a reflection of contemporary power struggles. Bifo's exploration of the 'soul at work'[13] and his examination of depression, stress and paranoia as a product of a capitalist system that feeds off the human psyche by investing in the human capacity for creation and imagination illustrate this new turn in the mining of psychic life through information technologies.

In the case of social media, dissatisfaction with one's location as a site of subjectivation gives way to a range of phenomena that current critical and political economy analyses tend to ignore: lassitude, paranoia, non-engagement, apathy, depletion in the face of the constant personalized streams of information we receive should be taken into account. Sherry Turkle's *Alone Together,*[14] while often summarized as yet another pessimistic account of social media, raises an important point: through social media use, we expose our vulnerabilities – our need for connection, for recognition, for meaningfulness – to a technological apparatus that has instilled itself as that which can make sense of the world for us. The problem is that connection to the world in order to discover one's place in the world is not the same as network connectivity: the constant linking that happens through social media gives very little space to pauses, constructive breakdowns, and the creation of new ways of seeking reassurance from the world.

Transitional Media

Given this new context of what could be called a form of psychic capitalism, what could alternatives to for-profit social media look like? It should be clear at this point that the design of user interfaces is only part of the answer. The Amsterdam Unlike Us conference was extremely useful in pointing out that the communication that happens at the interface level among users is only the tip of the iceberg, if we want to understand the new kind of power that social media yield.

10. Butler, *The Psychic Life of Power*; Lauren Berlant, *Cruel Optimism*, Durham and London: Duke University Press, 2011.
11. Gilles Deleuze, *Anti-Oedipus: Capitalism and Schizophrenia*, 1st edition, Minneapolis: University of Minnesota Press, 1983.
12. Félix Guattari, *The Machinic Unconscious: Essays in Schizoanalysis*, trans. Taylor Adkins, New York: Semiotext(e), 2010.
13. Berardi, *The Soul at Work*.
14. Sherry Turkle, *Alone Together: Why We Expect More from Technology and Less from Each Other*, New York: Basic Books, 2011.

At the interface level, we can have an impression of free communication and free expression, where expressions can be shared by anybody. However, it is crucial to study the back-end of social media platforms, and the trafficking and mining of user data, profiles, likes, behaviors, and preferences that can be associated with commodities. Worries about privacy, intellectual property, black-boxed platforms, and networks thus highlight the fact that the site of power struggles has shifted from communication among human actors to the circulation of one's data within invisible networks that come back to haunt us as a constant stream of personalized recommendations. Indeed, the capacity to track individual users online, but also, through the spread of geo-location tools, in the real world, raises serious concerns about the overbearing presence of insidious marketing in our lives.

My point about social media and psychic life should be seen as an extension of this concern with privacy: through constant tracking and profiling, social media attempt to pinpoint potential moments of when one's psyche opens up to the world. The new markets for personalized commodification and marketing that this offers are barely being defined, but one could easily see the risk posed by the expansion of subjection strategies further and further into the psyche.

While I do not want to negate the crucial importance of the negative aspects of social media, I would like to turn now to examining their more potentially transformative aspects. This really is about how social media platforms have inserted themselves as central components of psychic and subjective life as we use social media more and more as platforms for self-discovery, for forging relationships (whether intimate or more superficial, whether for friendship or professional networking), for, in short, being with each other and with ourselves. In many ways, this work is already under way: the design of alternative social networks obviously includes a reflection on the condition of being a user, and on the ideal relation among users and between users and technology.[15] Reflecting on social networking technology as an aid to psychic living aims to give new conceptual tools for furthering such reflections.

Any kind of transformative project, including political ones, requires opening up a sense of possibilities. Social media do open up this sense of possibilities, but their focus on the for-profit motives curtails and oftentimes eventually negates the very sense of creative possibility through authentic encounters with others. This sense of possibility cannot simply be material – it has to enter into psychic life. Thus from economics and information politics we switch to psychotherapy and sociotherapy to examine how social media can enrich lives. This pharmacological perspective, from Stiegler's concept of pharmacology as that which is both poison and cure depending on dosage and mixing with other ingredients,[16] requires thinking about social media beyond the notion of connectivity to that of authentic recognition. That is, we need to develop social media as spaces where we are not only put in touch with others, but also where we can fully explore what relationships with others can mean, and how they can help generate a sense of creativity and transformation.

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15. Christopher M. Kelty, *Two Bits: The Cultural Significance of Free Software*, Durham and London: Duke University Press Books, 2008.
16. Bernard Stiegler, *For a New Critique of Political Economy*, Malden and Cambridge: Polity, 2010.

The problem is that the cultivation of psychic transformation at the service of reviving one's creativity and life-force is mostly addressed through the very specific setting of the psychoanalytical clinic: a therapist and a client or clients devoting a specific amount of time to work on resolving conflicts and issues that prevent the formation of an authentic self capable of defining and finding meaningfulness. Such a setting, of course, would be difficult to transpose to a social media platform. In particular, the contemporary psychoanalytic setting is dependent on the absence of mediation: the main mode of transformation is through a direct verbal exchange between client and therapist. Social media should not be re-included in psychic life as some kind of artificial intelligence that could take on the traditional therapeutic role of objective interpreter of psychological symptoms. Rather, as much as current psychoanalytic treatment is based on reflecting on and exploring the relational space between therapist and clients, so social media can act as a space of mediation to explore the contours of creativity in one's specific setting.

As such, there is much promise in conceptualizing social media as transitional spaces. The idea of the transitional comes from Winnicott's analysis of children's relationships with special toys or objects (i.e. a special teddy bear, or a special blanket). Winnicott argues that these objects serve a fundamental transitional function in that they offer a place that is neither entirely internal to the child's psyche nor completely belonging to an external reality.[17] The transitional object offers a secure space in-between the external and internal where a subject can experiment with the world out there. Transitional objects can be extended to art as artistic experiences transmit and awaken in the spectator a sense of creativity, of new potential. The question, then, is to know how social media could be designed as transitional spaces. This requires thinking about how information and data processing could be used to allow users to create, rehearse and play with representations of themselves and representations of others.

At the same time, it is crucial to develop a kind of social media that does not provide only a gaming simulation. This would foster a solipsistic environment where everything becomes unreal, simulated, and cut off from life out there. Thus, thinking about social media as transitional spaces requires that we understand them as providing what Judith Butler[18] calls norms of recognition: the spaces and patterns through which we examine, figure out, and forge who we are in relation to others. In that sense, social media as transitional media should include a space of reflection on authentic encounter and should be able to raise awareness about the conditions of being subjects in the world with others. Such recommendations, at this point, might seem too broad and vague, but they might be helpful for developing new perspectives about technically-mediated connections to others and the world.

Psychic Life and the Importance of Recognition

Needless to say, talking about psychic life is fraught with perils, the first one being the very real risk of sounding extremely corny by bringing in to the fore affects and emotions (such as love, loneliness and yearning) that are usually not considered as part of any 'serious' political and critical projects. However, it would be a mistake to only see social media from the perspective of information politics in the narrow sense: social

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17. D.W. Winnicott, *Playing and Reality*.
18. Judith Butler, *Frames Of War*, London and New York: Verso Press USA, 2010.

media are not just tools for control, they are the platforms through which we live our lives, through which, increasingly and perhaps sometimes exclusively, we express our search for meaning and connection. Not taking into account the many consequences of this search – from privacy issues and surveillance to the commodification of psychic life – would be detrimental to crafting viable alternatives to social media.

Social media impose specific patterns of connectivity to psychic life: social media are not about providing content (that is the job of other users or third parties), they are about providing the patterns through which the exchange of content can become an act of meaningful recognition of one's place in the world (with friends, with institutions, with cultural texts, etc.) and can therefore lead to action (such as the purchase of a commodity, or engagement in political acts). Of course such patterning is not smooth, and the emotional and existential dissatisfactions we experience with for-profit social media are important indicators of the interpenetration of economic motives and psychic development. Deconstructing such interpenetration, in turn, can lead to a new conception of the role of social media in psychic life.

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THE FAN DANCE:
HOW PRIVACY THRIVES
IN AN AGE OF HYPER-PUBLICITY

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NATHAN JURGENSON
AND PJ REY

PRIVACY   PUBLICITY   SOCIAL
MORE   MEDIA   INFORMATION
NEW   STAGE   PUBLIC   WHEN
MOST   OTHER   FRONT
BACK   FAN   DANCE

The history of our digitally-connected present is already being written: writers, within and outside of the academy, have constructed a modern mythology about how social media and other digital technologies are eroding our once-valued privacy and creating a new cultural movement of mass publicity in its stead. We believe, however, that this narrative of digital mass exhibitionism is a fiction that rests on an incorrect assumption that privacy and publicity are zero-sum. While the common, simple, story is that publicity comes at the expense of privacy, we provide a counter-narrative that demonstrates a dialectical relationship, where privacy and publicity are deeply intertwined, mutually reinforcing, and perhaps both increasing as digital information grows more ubiquitous. And, we believe that this interplay between the revelation and concealment is, at least partially, responsible for the seductive quality of social media.

We do not challenge the notion that our lives are becoming more public.[1] In her research on young people using social media, danah boyd observed this trend saying, 'the experiences that teens are facing in the publics that they encounter appear more similar to the celebrity idea of public life than to the ones their parents face'.[2] Empirical data supports the claim that information sharing via social media is widespread. In 2012, 48% of American adults used social networking sites daily (up from 27% just three years earlier).[3] Facebook founder Mark Zuckerberg predicts that social media will not only continue to gain users but that these users will grow more active so that 'next year, people will share twice as much information as they share this year, and next year, they will be sharing twice as much as they did the year before'.[4] In this sense, individuals may have more opportunities to be visible than ever before.

The increasing publicity found in the lives of social media has led innumerable commentators to bemoan a perceived loss of the possibility of having privacy again – often

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1.   See also, Nathan Jurgenson, 'Rethinking Privacy and Publicity on Social Media: Part I', *The Cyborgology Blog*, 30 June 2011, http://thesocietypages.org/cyborgology/2011/06/30/rethinking-privacy-and-publicity-on-social-media-part-i/.
2.   danah boyd, 'Why Youth <3 Social Network Sites: The Role of Networked Publics in Teenage Social Life', *MacArthur Foundation Series on Digital Media and Learning – Youth, Identity, and Digital Media Volume* (2007): 119–142.
3.   'Trend Data (Adult)', Pew Internet and American Life Project, Accessed 27 October 2012, http://www.pewinternet.org/Static-Pages/Trend-Data-%28Adults%29/Online-Activities-Daily.aspx.
4.   Saul Hansell, 'Zuckerberg's Law of Information Sharing', *The New York Times*, 6 November 2008, http://bits.blogs.nytimes.com/2008/11/06/zuckerbergs-law-of-information-sharing/?gwh=0092D1D22D3F8C5BEF616585D8A33F35.

invoking fear of Orwell's Big Brother and other such hyperbole. The technology sections of various news publications are filled with headlines like 'The End of Privacy', 'How Privacy Vanishes Online', 'Disruptions: Seeking Privacy in a Networked Age', or 'Your Life Torn Open: Sharing is a Trap'.[5] In such a media environment, one might be excused for believing privacy was a thing of the past.

The growing moral panic over the belief that the publicity afforded by all our new digital platforms and devices signals the death of privacy as we know it rests on a simple, but seldom acknowledged, assumption about the nature of the relationship between privacy and publicity: that two concepts are polar opposites and must come at the expense of one another. Most academics and commentators seem to implicitly believe that privacy and publicity are zero-sum.

We propose an alternative theory: instead of the assumed trade-off, in many cases, new social, digital technologies are associated with an increase in both privacy and publicity.

The Facebook Fan Dance

> *She manipulated the undulating feathers in a slow, controlled, flowing line so that one fan swept to the side, the other took its place to cover her from her bare shoulders to her knees… Mesmerized patrons strained to catch a glimpse…*[6]

> *Obviously, I did the fan dance naked, but the whole idea was that you had to keep yourself covered. The appeal was the illusion of being able to maybe see something.*[7]

> *I rationalized… who's gonna know what's behind these fans anyway?*[8]

The fan dance (and the tradition of burlesque dancing more broadly) is defined by a cyclical interplay between reveal and conceal. For this reason, it serves as an excellent metaphor for understanding how privacy and publicity function in general.[9] To develop this fan

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5. 'The End of Privacy?', *The New York Times*, 14 July 2012, http://www.nytimes.com/2012/07/15/opinion/sunday/the-end-of-privacy.html; Steven Lohr, 'How Privacy Vanishes Online', *The New York Times*, 16 March 2010, http://www.nytimes.com/2010/03/17/technology/17privacy.html?gwh=7F7171A571EFAC9BADB349DB73396060; Nick Bilton, 'Disruptions: Seeking Privacy in a Networked Age', *The New York Times*, 14 October 2012, http://bits.blogs.nytimes.com/2012/10/14/seeking-privacy-in-a-networked-age/; Andrew Keen, 'Your Life Torn Open, Essay 1: Sharing Is a Trap', *Wired*, 3 February 2011, http://www.wired.co.uk/magazine/archive/2011/03/features/sharing-is-a-trap?page=all.
6. Cheryl Ganz describing Sally Rand, Cheryl R. Ganz, *The 1933 Chicago World's Fair: A Century of Progress*, Champaign, Illinois: University of Illinois Press, 2012.
7. June Wilkinson interviewed in Tom Weaver, *I Was a Monster Movie Maker: Conversations with 22 SF and Horror Filmmakers*, Jefferson, North Carolina: McFarland & Company, 2001.
8. Sally Rand, 'The Recollections and Thoughts of Sally Rand', interview by Studs Terkel, 1971, http://www.studsterkel.org/htimes.php.
9. Marc Smith, 'A Link to Social Media Network Visualization: Picturing Online Relations and Roles', *iSchool Colloquium Series*, University of Maryland, College Park, 15 September 2009; Nathan Jurgenson, 'Rethinking Privacy and Publicity on Social Media: Part I'; Nathan Jurgenson and PJ Rey, 'Comment of Sarah Ford's Reconceptualization of Privacy and Publicity', *Information, Communication and Society* 15 (2012): 287–293.

dance metaphor, we look back to the way Jean Baudrillard uses the concepts 'obscenity' and 'seduction'.[10] For Baudrillard, 'obscenity' is the drive to reveal all and expose things in full, whereas 'seduction' is the process of strategically withholding, creating magical and enchanted interest (what he calls the 'scene' opposed to the 'obscene').

In Baudrillard's vocabulary, the fan-dance is a seductive scene (as opposed to ob-scene) because each motion of the fan simultaneously reveals and conceals aspects of the body. The dancer's movement hints at the concealed 'bits' without ever being fully revealed. The fan is an instrument for making things visible and invisible, known and unknown. As the dance progresses, we come to realize only more concretely that which remains hidden: the full view of the dancer's body in its unconcealed obscen-ity. It is precisely in this interplay of known and unknown that the dance becomes so enchanting.

Privacy and publicity function in much the same way in everyday life, including social media. Privacy and publicity are co-implicated, or what some academics might call 'dialectical'. That is to say privacy is defined through publicity and not against it. The most astute privacy activists have understood this all along, including an early genera-tion of hacktivists:

> Privacy is necessary for an open society in the electronic age. Privacy is not secrecy. A private matter is something one doesn't want the whole world to know, but a se-cret matter is something one doesn't want anybody to know. Privacy is the power to selectively reveal oneself to the world.[11]

Both publicity and privacy are part of any act of disclosure; one is the capacity to project while the other is the capacity to protect. Each relies on the other. As the cypherpunks recognized in their advocacy of cryptography, we sometimes will share more if we also have more privacy. Thus, it is no less a mistake to believe privacy and publicity are independent than it is to believe them opposites. The two are engaged in a complicated and often mutually reinforcing dance.

The Front and Back Stage

The acknowledgement of revealing and concealing as mutually reinforcing and co-dependent is also found in perhaps one of the most cited theorists with respect to so-cial media. Sociologist Erving Goffman developed many conceptual metaphors to help understand social processes and continues to be popular among those studying new digital technologies even though he wrote long before the rise of social media. Perhaps most popular is his 'dramaturgical' framework of self-presentation that describes hu-man interaction as an endless series of performances.[12] In what Goffman called the 'front stage' is the aspect of the performance that is visible to observers. The various roles that individuals act out on the front stage tend to be prescribed by society; as Goffman puts it, 'fronts tend to be selected, not created'.[13] In other words, individuals

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10. Jean Baudrillard, *Fatal Strategies*, New York: Semiotext(e), 1990 (1983).
11. Hughes, Eric. 'A Cypherpunk's Manifesto', 1993, accessible at http://www.activism.net/cypherpunk/manifesto.html.
12. Erving Goffman, *The Presentation of Self in Everyday Life*, New York: Doubleday, 1959.
13. Goffman, *The Presentation of Self in Everyday Life,* p. 22.

must adopt certain scripts appropriate to the institutions that they operate within. The scripts are prescriptive, describing how one ought to perform in certain situations.

Thus, front stage performances often present idealized versions of the self, which requires a great deal of work and preparation beyond what is visible in the performance itself. One example Goffman gives of this invisible identity work is the 'calculated spontaneity' that characterizes interviews and other public exchanges of information:

> To give a radio talk that will sound genuinely informal, spontaneous, and relaxed, the speaker may have to design his script with painstaking care, testing one phrase after another, in order to follow the content, language, rhythm, and pace of everyday talk.[14]

This invisible work involved in creating the observable performances given by an individual is said to occur in the back stage. It is the private work necessary to create a public persona. In this way, Goffman acknowledges the dialectical relationship between privacy and publicity: each new performance entails new back stage preparation; new public experiences come with new private experiences. Goffman, in the conclusion of his book, even explicitly acknowledges that the front stage and back stage, the visible and invisible, are dialectically linked (a fact overlooked by most commentators who cite him today):

> Underlying all social interaction there seems to be a fundamental dialectic. When one individual enters the presence of others, he will want to discover the facts of the situation. Were he to possess this information, he could know, and make allowances for, what will come to happen and he could give the others present as much of their due as is consistent with his enlightened self-interest. To uncover fully the factual nature of the situation, it would be necessary for the individual to know all the relevant social data about the others. It would also be necessary for the individual to know the actual outcome or end product of the activity of the others during the interaction, as well as their innermost feelings concerning him. Full information of this order is rarely available; in its absence, the individual tends to employ substitutes – cues, tests, hints, expressive gestures, status symbols, etc. – as predictive devices. In short, since the reality that the individual is concerned with is unperceivable at the moment, appearances must be relied upon in its stead. And, paradoxically, the more the individual is concerned with the reality that is not available to perception, the more must he concentrate his attention on appearances.[15]

Just as with the fan dance, the visible enchants the viewer, which reinforces interest in the invisible. In short, Goffman's front stage does not steal from the back stage, rather they are co-dependent.

This interpretation is at odds with observers who claim that our lives have become all front stage. Even if the spotlight is potentially always on us, the back stage is a necessary part of the ongoing performance. Statements like 'electronic media have

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14. Goffman, *The Presentation of Self in Everyday Life,* p. 32.
15. Goffman, *The Presentation of Self in Everyday Life,* p. 249.

facilitated the development of a "middle region" between the front stage and back-stage' are problematic in that they fundamentally misunderstand what the back stage is.[16] Such commentators tend to describe the back stage as the 'real' essence or self behind the individual and the front stage as an inauthentic or incomplete representation of the individual that is necessary to cope with the world. From this perspective, the front stage is nothing more than a partially exposed (and sometimes distorted) back stage – it is just the tip of the iceberg. However, Goffman clearly believes that the self resides in the performance and that the performance requires both front and back stage: there is no self beyond what is performed for the front stage, and there is no front stage without a back stage.

If anything, Goffman gives priority to the front stage, as he indicates by saying: '[a] mask represents [...] the role we are striving to live up to – this mask is our truer self, the self we would like to be'.[17] This is not to say that individuals do not, sometimes, put on cynical, self-aware performances aimed at deceiving an audience. Goffman observes that, through careful control of appearances, 'the performer is able to forgo his cake and eat it too'.[18] However, even when the individual is performing a deception, it is not the secret that constitutes the back stage; rather the back stage consists of all the work done to prepare a performance that conceals the secret. Concealment itself is a visible performance. Goffman gives the (notably dated, if illustrative) example of

> middle-class housewives [who] may leave *The Saturday Evening Post* on their living room end table but keep a copy of *True Romance* ("It's something the cleaning woman must have left around") concealed in their bedroom.[19]

A close (re-)reading of Goffman makes clear that the front stage and back stage were never a dichotomy but are themselves simply two moments in the fan dance: the conceal implicated in the reveal, and revelation made possible only through further concealment. While we agree with most commentators that Goffman is useful in understanding privacy and publicity, we insist that Goffman must be interpreted in a manner consistent with his own dialectical conclusions. Taken in this way, Goffman's dramaturgical model closely aligns with our own. We think his work remains infinitely useful for analyzing social media, the topic at the heart of many contemporary debates about privacy and publicity.

'Whitewalling' and 'Social Steganography'

It is easy to find modern social media examples where privacy and publicity are mutually reinforcing rather than zero-sum. Consider 'whitewalling' and 'social steganography', two prominent cases described in detail by danah boyd. Whitewalling is a practice where social media users post information in a highly-public way and subsequently, sometimes daily, delete much or all the information, leaving a blank (Facebook) wall.[20] This leaves no public archive of users' previous interactions. Social

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16. Sarah Michele Ford, 'Reconceptualizing the Public/Private Distinction in the Age of Information Technology', *Information, Communication and Society* 14.4 (2011): 550-567.
17. Goffman, *The Presentation of Self in Everyday Life,* p. 249.
18. Goffman, *The Presentation of Self in Everyday Life,* p. 41.
19. Goffman, *The Presentation of Self in Everyday Life,* p. 48.
20. danah boyd, 'Networked Privacy', Personal Democracy Forum, New York, NY, 6 June 2011.

steganography is a practice where users hide messages in plain sight.[21] For example, a teen may post song lyrics that, to his or her parents, seem to hold little significance, but to peers carry an entirely different meaning. This might be a strategy to announce major distress publicly to one group (here, friends) without letting others in on that information (parents).

In both cases, users are being highly public (posting sometimes very intimate information for many to see) and highly private (deleting the content or hiding it behind multiple meanings). In both examples, high degrees of privacy *and* publicity are enacted together, especially in the latter example where both are performed simultaneously. The conventional zero-sum logic of privacy and publicity suggests a continuum between the two, and since these behaviors are both highly private and highly public, they are located in some midpoint on such a continuum.[22] This placement would be similar to one who posts limited amounts of information on social media. However, clearly there is something qualitatively different about the whitewall-er and social stenographer's use of social media: they are more engaged than the casual user, they are more private *and* more public. To mistakenly view privacy and publicity as a dichotomy, or even a continuum, assumes a zero-sum tradeoff that cannot grasp the differences in how people often use social media.

Whitewalling and social steganography are fairly extreme attempts to simultaneously maximize privacy and publicity, but even more typical social media users engage in such strategies. For instance, the availability of privacy controls does not thwart sharing but actually encourages it. There is evidence demonstrating that those who share the most are also most sensitive to privacy settings.[23] If users feel that they are unable to share selectively, they are often more likely to keep information secret. As we would predict, social media users are very active in manipulating their privacy settings. For example, a nationally representative Pew survey indicates that in 2010, 65% of adult American social media users adjusted the privacy settings on their profiles.[24] A similar survey conducted in 2012 indicates that

> 81% of those who know ways to manage the capture of their data do this. Some 75% of this group uses the privacy settings of websites to control what's captured about them. And 65% change their browser settings to limit the information that is collected.[25]

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21. danah boyd and Alice Marwick, 'Social Privacy in Networked Publics: Teens' Attitudes, Practices, and Strategies', Decade in Internet Time: Symposium on the Dynamics of the Internet and Society, Oxford University, 22 September 2011, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1925128.

22. Ford, 'Reconceptualizing the Public/Private Distinction in the Age of Information Technology'.

23. Kevin Lewis, Jason Kaufman and Nicholas Christakis, 'The Taste for Privacy: An Analysis of College Student Privacy Settings in an Online Social Network', *Journal of Computer Mediated Communication* 14.1 (2008): 79-100.

24. Mary Madden and Aaron Smith, 'Reputation Management and Social Media', Pew Internet & American Life Project, 26 May 2010, http://www.pewinternet.org/Reports/2010/Reputation-Management.aspx.

25. Kristen Purcell, Joanna Brenner and Lee Rainie, 'Search Engine Use 2012', Pew Internet & American Life Project, 9 March 2012, http://pewinternet.org/Reports/2012/Search-Engine-Use-2012.aspx.

If the cultural current was truly toward unfettered exhibitionism, then we would not expect this sort of concern over privacy to accompany new modes of sharing. However, this data indicates that the work of sharing or revealing information on the web is deeply tied to the work of privacy and selective concealment.

Users' concerns for privacy have manifested in high-profile fights with social media platforms over various privacy violations that have become major public relations mishaps for the companies and continue to be fought in courts around the globe. These debates around privacy policies for various social media sites are not a fight for more privacy in order to share less. Rather, users are also seeking greater privacy so that they feel comfortable sharing *more* (i.e., so they can feel comfortable being more public with more parts of their lives). This is a fact that publicity advocate Jeff Jarvis recognizes when he notes 'privacy and publicity are not mutually exclusive; indeed, they depend upon each other'.[26]

WikiLeaks

We intend our point that privacy and publicity are not always a trade-off but often mutually reinforcing to be a general one that applies to more than just social media profiles. WikiLeaks, for example, is an institution that embodies the privacy/publicity dialectic and also understands and leverages the fan dance approach in its strategic actions. For instance, when the organization receives a major leak, they never release the information all at once. Instead, WikiLeaks often lets the information dribble out slowly – that is to say, WikiLeaks keeps its information partially concealed – so that each time the leak fades from the headlines, attention is restored by the release of a new set of documents. Moreover, the attention is reinforced by media speculation about what unreleased documents WikiLeaks might have in its possession. These private unknowns serve to increase public visibility. In this way, WikiLeaks activists recognize that their goal of transparency is often best achieved through use of the mechanism of concealment.

The philosophy of WikiLeaks founder Julian Assange is deeply dialectical. His goal is to eliminate 'conspiracies' which he describes in network terms as 'connected graphs' or clusters of individuals that share information internally but deny it to those on the outside. He believes that this exclusive exchange of information works to the advantage of those within the conspiracy cluster and at the expense of those external to it. Conspiracies cease to exist when information cannot be surreptitiously transmitted between the individuals that comprise these exclusive information-networks. Many 'open government' and transparency advocates believe that powerful conspiracies can be shattered by imposing disclosure rules on the institutions that host conspiracies. Donald Tapscott describes transparency in a way that is typical of most such advocates:

> I define transparency as the opportunity and obligation of institutions to provide pertinent information to stakeholders, like customers, employees, business partners, and shareholders – "pertinent" meaning it can help them if they have this information

26. Jeff Jarvis, *Public Parts: How Sharing in the Digital Age Improves the Way We Work and Live*, New York: Simon and Schuster, 2011.

> […] Evidence suggests open institutions will perform better […] every company and government needs a transparency strategy.[27]

Assange, on the other hand, observes that transparency is promoted, somewhat counter-intuitively, when institutions are provoked into draconian efforts to plug leaks, to tighten up and become more private and secretive. One of WikiLeaks main goals is to instigate such countermeasures under the assumption that the imposition of internal privacy measures slows the flow of information, causing the institution to function less efficiently and making it ineffective and vulnerable to subversion. Assange concludes that:

> When we look at a conspiracy as an organic whole, we can see a system of interacting organs, a body with arteries and veins whose blood may be thickened and slowed till it falls, unable to sufficiently comprehend and control the forces in its environment.[28]

Thus, WikiLeaks' strategy relies on more than just the public's reaction to leaked documents; it also expects that as governments and corporations react to stop the leaks, they will operate less efficiently, and, ultimately, become easier targets and less capable of projecting their power. When this happens, enemies of the conspiracy will have an easier time hacking the conspiracy and the cycle will repeat itself.

Given this sophisticated view of privacy/publicity, the media description of WikiLeaks as an 'anti-secrecy group' is a misnomer.[29] In fact, Assange even praises secrecy, saying 'secrecy is important for many things but shouldn't be used to cover up abuses'.[30] A better description of WikiLeaks might be 'anti-conspiracy', understanding that this agenda is served by sophisticated manipulation of both privacy and publicity.

Violentacrez

Another example of this logic played out when *Gawker* reporter Adrian Chen 'doxxed' a famous and controversial Reddit user who used the handle, Violentacrez. [31] 'Doxxing' is internet slang for revealing personally-identifying information about someone who had previously existed online anonymously or pseudonymously under various nicknames, handles, avatars, and so on. Violentacrez moderated as many as 400 discussion boards – many on very controversial topics that pushed the limits of free speech and violated others' privacy. Some of the boards dealt with topics such as so-called 'creep shots' (photos taken, most often of women, without their consent and posted to the web for others to comment on), photos of dead children, child por-

27. Donald Tapscott and Clay Shirky, 'Where Everybody Knows Your Name: How to Succeed in the Post-Privacy Age', *The Atlantic*, 2 November 2012, http://www.theatlantic.com/business/archive/2012/11/where-everybody-knows-your-name-how-to-succeed-in-the-post-privacy-age/264468/.
28. Julian Assange, 'State and Terrorist Conspiracies', Cryptome.org, 10 November 2006, cryptome.org/0002/ja-conspiracies.pdf.
29. See for example, Shane Scott, 'WikiLeaks Archive — Julian Assange Issues Warning', *The New York Times*, 6 December 2010, http://www.nytimes.com/2010/12/07/world/europe/07assange.html.
30. Julian Assange, interview by Richard Stengel, *Time*, 30 November 2010, http://www.time.com/time/world/article/0,8599,2034040,00.html.
31. Reddit is a popular discussion forum website and 'Violentacrez' is pronounced 'violent acres'.

nography, and much else. When reporting on this, Chen learned Violentacrez's actual identity and revealed it in a high-profile story.[32]

When Chen was asked why he 'doxxed' this individual (whose given name, we learned, is Michael Brutsch), Chen answered along the lines of Assange, stating that more important than protecting Brutsch's identity is protecting the privacy of others he was violating. Brutsch, as well as the Reddit website, facilitate widespread privacy violations, in part, by granting privacy and anonymity to its users. Chen, on the other hand, utilized publicity in order to protect privacy: making one person far more public can allow others to be more private, if they choose so.

Celebrity Culture

The privacy/publicity dialectic is also visible offline in, for example, celebrity culture. Celebrities keep tight control over images (outfits, bodies, sexual encounters, etc.) and other information (romances, children, divorces, etc.) not because they are trying to minimize publicity and maximize privacy. Rather, celebrities often control this information in order to release it in a manner that maximizes publicity. By creating artificial scarcity, celebrity culture manipulates a demand never satiated but enticed further by releasing enough information to remind us that they still exist while leaving us feeling like there is more to be known. The net effect of the slow reveal is to generate more buzz, more publicity than absolute transparency. In short, celebrities often use privacy as a tool to garner publicity.

The most extreme, if unintentional, example of this phenomenon is J.D. Salinger, author of *The Catcher in the Rye*, whose intense reclusiveness made him a sort of mythic figure and garnered him a cult-like following. Audie Conish described Salinger's intense desire for privacy in an obituary titled 'Rest in Privacy':

> In our celebrity-soaked culture where people dream of fame for the sake of fame alone, Salinger was the anti-celebrity. He walked away from autograph seekers. He had his fan mail burned. He took refuge from the "phonies" he wrote about […] He lived on the other side of the world from Brangelina and Octomom. While celebrity wannabes aspire to barge onto center stage through the gates of the White House, Salinger wanted nothing more than to slip out the back door […] I don't expect to hear anything like that from anyone in my generation today. We spill our private lives across the Internet in blogs, Twitter and Facebook. And we expect our favorite actors and writers to do the same.[33]

Here, Cornish engages in a remarkable performative contradiction: she is celebrating how Salinger supposedly gave up publicity for privacy while at the same time writing a very public obituary to his privacy. In fact, in her piece, his privacy features more prominently than his writings. In doing so, she is demonstrating just how Salinger's privacy made him such a prominent public figure.

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32. Adrian Chen, 'Unmasking Reddit's Violentacrez, The Biggest Troll on the Web', *Gawker*, 12 October 2012, http://gawker.com/5950981/unmasking-reddits-violentacrez-the-biggest-troll-on-the-web.

33. Audie Cornish, 'Rest In Privacy, J.D. Salinger', *Weekend Edition Saturday*, NPR, 30 January 2010, http://www.npr.org/templates/story/story.php?storyId=123140347.

If celebrity culture is often about leveraging privacy in the name of publicity, a recent observation by danah boyd illustrates that this privacy/publicity dialectic can also be reversed, selectively leveraging publicity to further privacy:

> When Angelina Jolie married Billy Bob Thornton, the press frenzy around her was intense. She willingly exposed many aspects of her life, fuelling the fire. At one point, a journalist asked Angelina about her decision to be so public and reject any privacy that she might possibly have. Angelina responded by telling the reporter that the best way to achieve privacy was to appear to be so public that no one bothered looking into areas that she wanted to protect.[34]

Celebrities are, perhaps, those most involved in the game of publicity, so it is no surprise that they are often the ones who are most involved with measures to protect their own privacy. Celebrity culture proves to be a particularly dense dialectical nexus of privacy and publicity and therefore an ideal case study for how they interact.

The Streisand Effect

The 'Streisand effect' describes cases where the pursuit of privacy leads to unintended publicity. This name derives from an incident where the famous singer Barbara Streisand – believing that her privacy was violated by aerial photos taken of her house as part of a coastal erosion monitoring project – took legal action to have them removed from the internet. [35] Before the lawsuit, virtually no one had viewed the photo, but after news of the legal action broke, the photo began to rapidly circulate around the internet, thus making it far more public. Streisand eventually lost the case, though the pictures would have remained more public even had she won.

Techdirt founder Mike Masnick coined the phrase 'Streisand effect' when comparing the Streisand lawsuit to a similar legal action pursued by a Florida resort against Urinal.net, a joke site that curates images of urinals. Urinal.net publicized the fact that they had received a cease and desist order after posting a picture of one of the resort's urinals and the story was picked up by several news outlets and web-based discussion groups. Masnick elaborated on the logic of the Streisand effect while ranting against the Urinal.net case:

> How long is it going to take before lawyers realize that the simple act of trying to repress something they don't like online is likely to make it so that something that most people would never, ever see (like a photo of a urinal in some random beach resort) is now seen by many more people? Let's call it the Streisand Effect.[36]

The Streisand effect played out more recently when the Church of Scientology claimed violation of copyright over a YouTube-hosted interview of Tom Cruise that represented Scientology in an unflattering light. YouTube removed the video under

34. danah boyd, 'Dear Voyeur, meet Flâneur… Sincerely, Social Media', *Surveillance & Society* 8.4 (2011): 505-507.

35. Mike Masnick, 'Streisand Suing over Environmentalist's Aerial Shots of Her Home', *Techdirt*, 1 June 2003, http://www.techdirt.com/articles/20030601/1910207.shtml.

36. Mike Masnick, 'Since When Is It Illegal To Just Mention A Trademark Online?', *Techdirt*, 5 January 2005, http://www.techdirt.com/articles/20050105/0132239.shtml.

threat of litigation. However, the actions of the Church of Scientology provoked the ire of free speech and transparency activists (indeed, Gabriella Coleman notes that hacktivists have had a long-running antagonism with the Church of Scientology and its 'extremely proprietary' nature stemming from the days of Usenet[37]). Many sites (most notably, *Gawker*[38]) reposted the video in protest, and news reports drove enormous flows of web-traffic. The hacker group Anonymous led demonstrations in front of Scientology facilities and released a series of videos claiming that the Church of Scientology uses its institutional power to affect a form of censorship. Even more traffic was driven to the videos as the media reported on these protests. Again, an attempt to conceal information through litigation and other institutional mechanisms led to further revelation.[39]

The Blank Spot on the Map

Like the Streisand effect, blank spots, blackouts, and redactions on maps and other documents are instances where privacy may generate unintended publicity. Blank spots are unknowns that produce new kinds of knowledge: namely, knowledge that something is missing. In this sense, the act of concealment is also an act of revelation. Borrowing the words of former defense secretary Donald Rumsfeld, blanks spots produce 'known unknowns'. Geographer Trevor Paglan describes how this dialectic between known and unknown operates within a blank spot:

> Secrecy can only work as a Band-Aid, a way to cover something up. But just as a Band-Aid announces the fact that it conceals a wound, blank spots on maps and blacked-out documents announce the fact that there's something hidden. Secrets, in other words, often inevitably announce their own existence. For example, when the government takes satellite photos out of public archives, it practically broadcasts the locations of classified facilities. Blank spots on maps outline the things they seek to conceal. To truly keep something secret, then, those outlines also have to be made secret. And then those outlines, and so on.[40]

Often the fact that something has been concealed generates more attention (in the form of suspicion) than the thing concealed ever would.

One now infamous example of a blank spot occurred when former Vice President Dick Cheney used the power of his position to have his personal residence blotted out on Google Maps (and other map services). As soon as this fact was discovered, articles like *Wired*'s 'Why is Google Earth Hiding Dick Cheney's House?' drew nation-

37. Gabriella Coleman, 'Old and New Net Wars Over Free Speech and Secrecy or How to Understand the Lulz Battle Against the Church of Scientology', *Global Café Series*, The Institute for Public Knowledge, New York University, New York City, 31 March 2009.

38. Nick Douglas, 'Why Kids on the Internet Are Scientology's Most Powerful Enemy', *Gawker*, 21 January 2008, http://gawker.com/347367/why-kids-on-the-internet-are-scientologys-most-powerful-enemy.

39. Robert Vamosi, 'Anonymous Hackers Take on the Church of Scientology', *CNET*, 24 January 2008, http://news.cnet.com/8301-10789_3-9857666-57.html.

40. Trevor Paglen, *Blank Spots on the Map: The Dark Geography of the Pentagon's Secret World*, New York: EP Dutton, 2009, p. 17.

al attention to the house and its geographical location.[41] In short, the fact the house was hidden made it (and its location) more public.

An even more prominent example is the conspicuous privacy that helped US intelligence officials identify the compound where Osama bin Laden was hiding. Though the White House counterterrorism chief described bin Laden as 'hiding in plain sight', it was, in part, the compound's extreme privacy that highlighted it to intelligence officials.[42] *The New York Times* reported:

> The property was so secure, so large, that American officials guessed it was built to hide someone far more important than a mere courier […] The property was valued at $1 million, but it had neither a telephone nor an internet connection. Its residents were so concerned about security that they burned their trash rather [than] putting it on the street for collection the way their neighbors did.[43]

US officials never had 'eyes' inside the compound, but made the decision to raid it primarily based on the extensive privacy surrounding it.

Finale: The Seduction of Social Media
In each case presented here privacy and publicity are mutually reinforcing. However, the common assumption for researchers, journalists, commentators, and nearly anyone discussing these issues is that privacy and publicity are a trade-off. Instead, privacy and publicity should be seen as joined in a kind of fan dance of reveal and conceal. Privacy can create conspicuousness and publicity can conceal.

The most obvious implication of our argument is to take with deep skepticism news reports, articles, books, and so on that proclaim the 'death of privacy'. The evidence simply does not support claims that 'the Web unmasks everyone' or that it is where 'anonymity dies' or that 'The Web Means the End of Forgetting'.[44] Zygmunt Bauman was equally incorrect when he suggested in the *The Guardian* that we might be witnessing an 'end of anonymity'.[45] These commentators are right that publicity is expanding, but we need to remember that, contrary to common assumption, the spread of publicity does not have to come at the expense, or death, of privacy. Examples abound of continued, and even expanded, privacy and anonymity, both on and offline – sometimes the cause, and sometimes as the result, of publicity.

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41. Sharon Weinberger, 'Why is Google Earth Hiding Dick Cheney's House?', *Wired*, 23 July 2008, http://www.wired.com/dangerroom/2008/07/what-is-google/.
42. Mark Cooper, Helene Mazzetti and Peter Baker, 'Behind the Hunt for Bin Laden' *The New York Times*, 2 May 2011, http://www.nytimes.com/2011/05/03/world/asia/03intel. html?pagewanted=all&_r=0.
43. Mark Mazzetti and Helene Cooper, 'Detective Work on Courier Led to Breakthrough on Bin Laden', *The New York Times*, 2 May 2011, http://www.nytimes.com/2011/05/02/world/asia/02reconstruct-capture-osama-bin-laden.html.
44. Brian Stelter, 'Upending Anonymity, These Days the Web Unmasks Everyone', *The New York Times*, 20 June 2011, http://www.nytimes.com/2011/06/21/us/21anonymity.html; Jeffrey Rosen, 'The Web Means the End of Forgetting', *The New York Times*, 21 July 2010, http://www.nytimes.com/2010/07/25/magazine/25privacy-t2.html.
45. Zygmunt Bauman, 'Is This the End of Anonymity?', *The Guardian*, 28 June 2011, http://www.guardian.co.uk/commentisfree/2011/jun/28/end-anonymity-technology-internet.

Indeed, this seductive partial-revelation may be part of the appeal of social media. Social media would be far less enchanting if it was either the complete, obscene, exposure of the self, or the full concealment of identity through universally anonymous profiles. Instead, social media, like other enactments of privacy and publicity, is more like a fan dance: a creative, seductive, and mutually-reinforcing interplay of reveal and conceal.

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DATABASES AS CITADELS
IN THE WEB 2.0

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MARTIN WARNKE

NETWORK   WEB   NODES
SCALE   INTERNET   NETWORKS
LINKS   NUMBER   POWER
FREE   DATABASES   CONNECTED

What, if the promises of the Web 2.0 – grassroots democracy – were pure ideology? What, if the content we generate also generated massive inequality: power to the very few over the many of us? What, if this were equally annoying and, at the same time, unavoidable?

There is a paradoxical development taking place on the World Wide Web. This consists of the truly mass-medial use of the web, which effectively everyone in developed industrialized countries are taking part in, a comprehensive popularization if you will, and the fact that the places on the net where such communication practices take place are themselves extremely concentrated. Essentially, everyone meets at very few places on the web. And these locations are, one and all, either private or unregulated by nation states. This communal experience is realized by singular institutions, the model for which seems to be that of absolutism rather than that of government by the people. And the palaces of the absolute, mostly private rulers, have the technological shape of databases, and militarily of citadels. Whatever you might think of this, it is necessarily the case.

The Promise of the Web 2.0

Fig. 1. Source: http://yarikson.files.wordpress.com/2008/04/web-20-scheme.png.
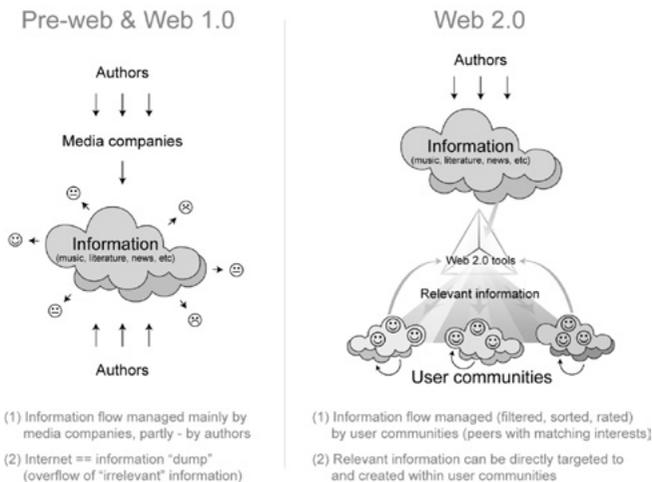
The public evidently has quite a different opinion, as can be seen in this perfectly ordinary graphic (Fig. 1): in Web 2.0 there is an outbreak of freedom and joy. Instead of media companies controlling the flows of information, making some happy, many sad, in Web 2.0 our *peers* have taken over, which confusingly refers both to those of the same status as well as members of the English aristocracy. The impression however is that the many happy faces under a rainbow seem to promise the collective ecstasy of the miracle of Pentecost amid our friends. After all they control the flow of information themselves by making use of 'tools', serviceable means.

And so the many form the body of the Web 2.0, which could remind one of Thomas Hobbes, but we'll return to that later. The phantasm of the Web 2.0 is one of self-determination, of communion, even of communism, the association of free individuals. It is the promise of equality and – with apologies to Jürgen Habermas – of an egalitarian discourse. But nothing could be farther from the truth.

The Science of Networks

Stabile, scalable, very large networks must always have a network topology with a highly unequal distribution, so that there can be no talk of equality in such constructions. I am drawing here on the work of Albert-László Barabási in *Linked: How Everything Is Connected to Everything Else and What It Means for Business, Science, and Everyday Life*[1], which can be highly recommended for the overview it provides of network theory. Barabási introduces his readers to the emergence of networks with the example of a flight attendant whose numerous sexual contacts around the world has contributed considerably to the spread of AIDS.[2] The nodes of the network being considered here are the individuals involved; the link is the sexual contact. The nodes with their links create the network that we will now investigate. The reason this flight attendant has become so prominent was that he was solely responsible for a quarter of around 250 of the first AIDS patients to be registered. He was one of the few with an exceptionally large number of contacts; many of those infected had had contact with him or with one of his partners. There are many examples of such highly networked individuals. To take another example, in a database of actors and actresses[3] we can see who has appeared with whom in the same film.[4] And now we can ask: how many degrees separate one actor from another? The result is surprisingly small; the answer is three. Each actor or actress is connected to each other by three links, each link corresponding to a joint appearance in a film. If, as an example, we take Kevin Costner and Helmut Qualtinger, we can test this ourselves. What do these two gentlemen have to do with one another? The answer is, in spite of all differences in appearance, a lot. Because Costner appeared with Sean Connery in *The Untouchables*, Connery with Qualtinger in *The Name of the Rose*, they are only two links apart. Another more extreme example provides us with the highest value: Werner Krauss as Dr. Caligary in the 1920 silent movie of the same name is three films away from Sam Worthington in James Cameron's *Avatar* of 2009. What is at first sight amazing is the

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1.   Albert-László Barabási, *Linked: How Everything Is Connected to Everything Else and What It Means for Business, Science, and Everyday Life,* New York: Plume, 2003.
2.   Barabási, *Linked*, p. 123.
3.   See, http://oracleofbacon.org.
4.   Barabási, *Linked*, p. 60.

minimal distance between selected links, considering the actual meager connectivity of the individuals, which for a third of all actors is less than ten.

Stanley Milgram – the same one who in 1961 conducted the experiment named after him, which showed that participants were willing, in supposed service to science, to deliver others to death by electric chair if they were only far enough away from the suffering – published in *Psychology Today* (May 1967) the results of a study[5] on the acquaintance distance between two individuals in the USA. The number here is six. This distance between people on earth became known as 'six degrees of separation', and a study from 2007 shows that for participants in instant messaging services worldwide, there is an average distance of 6.6. [6] This world is a small world.

The question now, is how to explain this minimal distance between the nodes of such large networks, since the experiment from 2007 studied a network with 180 million nodes. If we estimate the extent to which an individual would have to be networked in order to achieve a distance of seven in a population of 180 million, then by dividing 180 million by seven gives us more than 25 million. And not even the most popular guy at the party knows that many people, but he would have to in order to be only seven degrees away from everyone else.

This is actually quite easy to understand: assuming that connectedness is uniform to the degree of k=2 (where k equals the number of links), you would need half as many links as there are nodes to reach the farthest point of a circular network. The diameter of the network then would be N/2 (where N equals the number of nodes). If every node is linked to the node just beyond the one it is immediately connected with, which is a degree of connectivity equal to four, then it is possible to skip a neighboring node and you only need half as many 'hops', N/4. The diameter is always the number of nodes divided by the degree of connectivity. And that means that 180 million must be divided by a round 25 million in order to get seven.
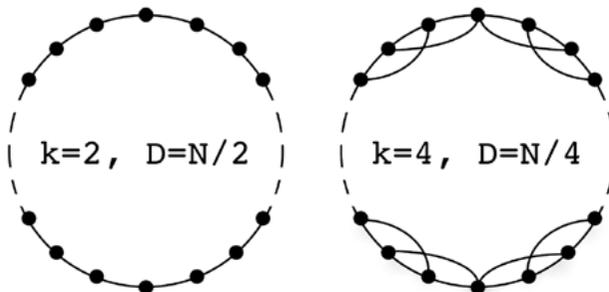
Fig. 2. Source: following Barabási 2003, p. 51.

5. Stanley Milgram, 'The Small World Problem', *Psychology Today* 1.1 (May 1967): 61-67.
6. Jure Leskovec and Eric Horvitz, 'Planetary-Scale Views on an Instant-Messaging Network', *Microsoft Research Technical Report* (June, 2007): 1-28.

Unlike Us Reader

(a) Clustering
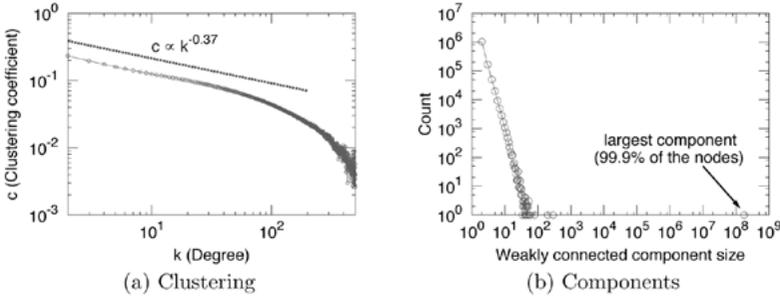
(b) Components

Figure 19: (a) Clustering coefficient; (b) distribution of connected components. 99.9% of the nodes belong to the largest connected component.

(a) Diameter

(b) k-cores
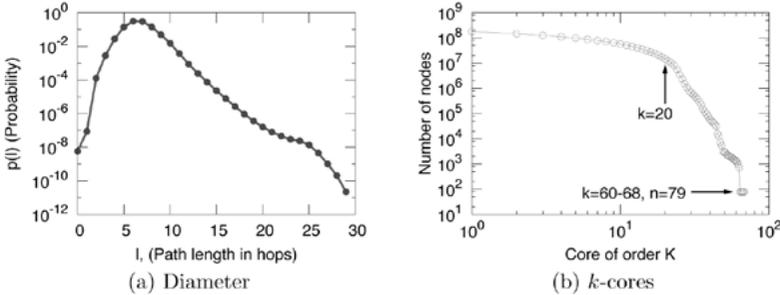
Figure 20: (a) Distribution over the shortest path lengths. Average shortest path has length 6.6, the distribution reaches the mode at 6 hops, and the 90% effective diameter is 7.8; (b) distribution of sizes of cores of order k.

Social networks have been found to be highly transitive, *i.e.*, people with common friends tend to be friends themselves. The clustering coefficient (19) has been used as a measure of transitivity in the network. The measure is defined as the fraction of triangles around a node of degree k (19). Figure 19(a) displays the clustering coefficient versus the degree of a node for Messenger. Previous results on measuring the web graph as well as theoretical analyses show that the clustering coefficient decays as k^{-1} (exponent -1) with node degree k (11). For the Messenger network, the clustering coefficient decays very slowly with exponent -0.37 with the degree of a node and the average clustering coefficient is 0.137. This result suggests that clustering in the Messenger network is much higher than expected—that people with common friends also tend to be connected. Figure 19(b) displays the distribution of the connected components in the network. The giant component contains 99.9% of the nodes in the network against a background of small components, and the distribution follows a power law.

Fig. 3. Source: Leskovec and Horvitz 2007, p. 22.

With a uniform but also with a random degree of connectedness showing a significantly average value, such short distances cannot be achieved. It is only when a few nodes are given additional links that distances on the whole become considerably shorter:
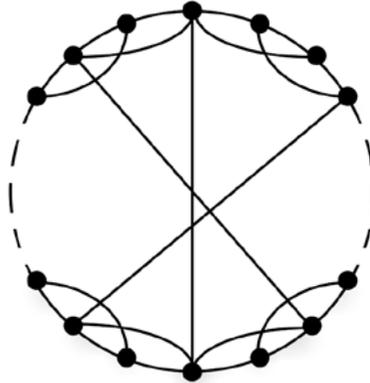
Fig. 4. Source: following Barabási 2003, p. 51.

A network structure that consists of a collection of nodes that are not uniformly connected, a small number of strongly connected and a large number of weakly connected objects, enables and even requires the qualities being discussed here: a very small diameter with very many nodes without an overall extremely high degree of connectivity. Most of us potter along among our immediate friends and acquaintances with few but strong ties, a few of us connect these 'islands' with weak acquaintance relationships. This at any rate is the claim of Mark Granovetter in his essay on weak ties.[7]

Such very special nodes in a network are called hubs. Only a few are needed to create a network with a small diameter and high cohesion. You may have already guessed that in the World Wide Web our top sites, behind which there are enormous databases, will take on this role.

Scale-free
In his draft on a distributed communication network, which became the ARPANET and then the internet, Paul Baran differentiated among three types of networks: the star, the tree and the mesh network.[8]

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7. Mark S. Granovetter, 'The Strength of Weak Ties', *American Journal of Sociology* 78 (May, 1973): 1360–1380.
8. Paul Baran, *On Distributed Communications: IX Summary Overview*, Santa Monica: The RAND Corporation, 1964.
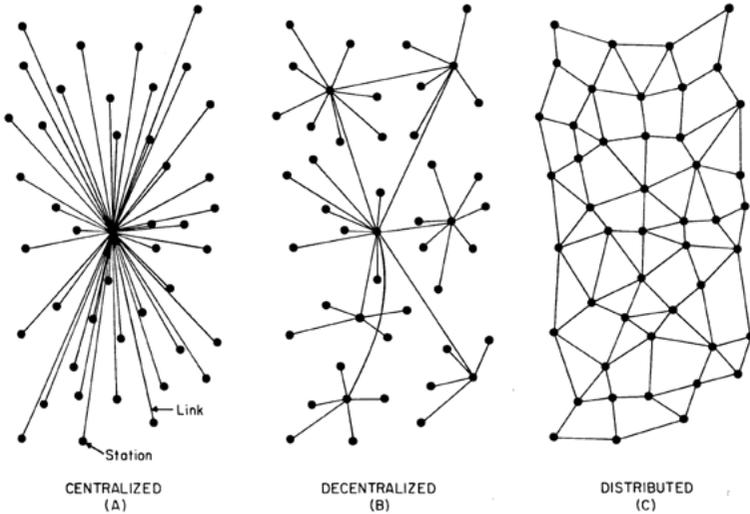
FIG. I — Centralized, Decentralized and Distributed Networks

Fig. 5. Source: http://www.rand.org/pubs/research_memoranda/2006/RM3767.pdf.

Our trained eye will now recognize in the variant (C) a network with a somewhat uniformly distributed degree of connectivity. If we count then we find that:

# Links	# Such nodes
2	3
3	8
4	17
5	15
6	3

There are three nodes with two links (upper right and left, lower left), eight with three links, most have four or five links. In a diagram this looks as follows:
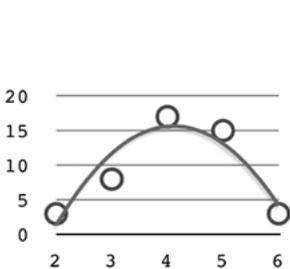
What emerges is a roughly normal distribution; the typical degree of connectivity is between four and five. The diameter is approximately ten or eleven hops across the network. Try it out yourself, moving from lower left to upper right!

Not all of the networks with a very small diameter are however of this kind, with a characteristic scale, here about four links per node. And the internet does not look like this either, as it appears that even in the network of all computers connected to the academic internet – and this involves millions – the maximum

Fig. 6

distance between any two is only about twelve hops.[9] That is not a lot and cannot be accomplished with a uniform connectedness. A different model has to be found then, that does without this characteristic scale. It will be one that has very many nodes with few links, and very few with a large number of nodes. Such networks are called scale-free, because a medium degree of connectivity is missing. The distribution looks more like this:

Fig. 7

By the way, this also applies to Shakespeare, and if we were to count the words in Shakespeare's collected works, we would find that 14,376 words occur a single time, 4,343 words twice and 364 as many as ten times. Auxiliary verbs and conjunctions occur very often and it is wonderful that such words introduce the best known of his monologs: 'To be or not to be'.[10] There are very few words occurring very often and very many occurring very rarely. Even if Shakespeare had written much more than he did, there is good reason to believe that there would not be a central distribution but instead the form of the curve would remain the same. This form can be modeled exactly with a power law:

$$y = a*x^{-k}$$

Barabási compares the two network types:[11]
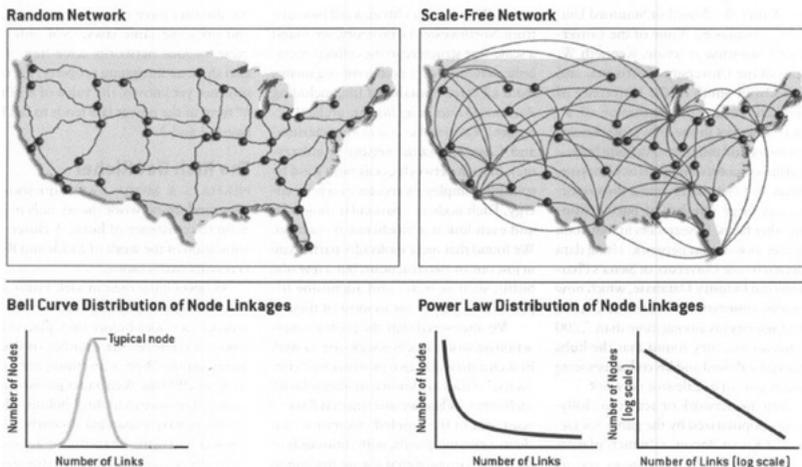
Fig. 8. Source: Barabási 2003, p. 53.

9. Martin Warnke, *Theorien des Internet*, Hamburg: Junius-Verlag, 2011. p. 73.
10. See, http://math.ucdenver.edu/~wbriggs/qr/shakespeare.html.
11. Albert-László Barabási and Eric Bonabeau, 'Scale-Free Networks', *Scientific American* (May, 2003): 50-59.

On the left-hand side is a highway network and on the right airline routes. Highway intersections do not have an unlimited number of exits, airports on the other hand differ in the number of starts and landings. Intersections have a typical number of access points, while the number of starts and landings can vary greatly; there are many small, and very few, big airports.

Statistical investigations of the internet have shown that the network structure at the level of IP, the router network, follows a power law very closely.[12] How else to explain only twelve hops between European cities? Only by assuming that there are just a few big hubs and many very little network nodes. This immensely shortens the distance between any network nodes. Massively connected nodes enable great leaps and provide for the overall cohesion of the network. Unevenness is the most important ingredient of scale-free networks – they are driven with the help of databases.

Stability
One of the most amazing characteristics of scale-free networks is their stability against random disturbances. In his RAND report Paul Baran investigated the behavior of network topologies in the case of a thermonuclear war and discovered that redundancy strengthens the network against destruction. But he also studied evenly distributed random networks, not scale-free, since they were still unknown. They were first discovered as a result of his work and then more closely investigated.

If the latter are namely affected by random destruction, the hubs are damaged with the same probability as the unimportant nodes on the far right-side of the distribution. But because there are far fewer hubs, unimportant nodes are almost only hit; a scale-free net first fragments into isolated islands when it is completely destroyed.[13] Put more precisely, this is how scale-free networks with a power of less than three behave, and this just happens to include the internet. If however the hubs are hit, then everything goes down very quickly and the network collapses.

The three figures next to each other (see next page) show three different scenarios of destruction. If the nodes of the random networks are attacked (Fig. 9) then only a very high level of redundancy can help. The scale-free network (Fig. 10) is practically indestructible if it is accidentally attacked. A targeted attack (Fig. 11) however quickly has drastic effects. Then as resilient as the internet may be against attacks, if it is possible for an entity to control the major nodes it will have consequences. This situation can be seen in totalitarian states, such as in China on the occasion of its censuring search engines. The one hub – the Chinese state – is struggling with another – Google, and the outcome is uncertain. One might suspect at this point that these circumstances give rise to the citadel-like shape of certain network nodes.

Growth
How do scale-free networks grow? And what happens to them when they are growing? If a network can add new nodes according to a simple rule, which will be intro-

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12. Michalis Faloutsos, Petros Faloutsos and Christos Faloutsos, 'On Power-law Relationships of the Internet Topology', *Computer Communication Review* 29 (1999): 251.
13. Barabási, *Linked*, p. 109.

Scale-Free Network, Accidental Node Failure
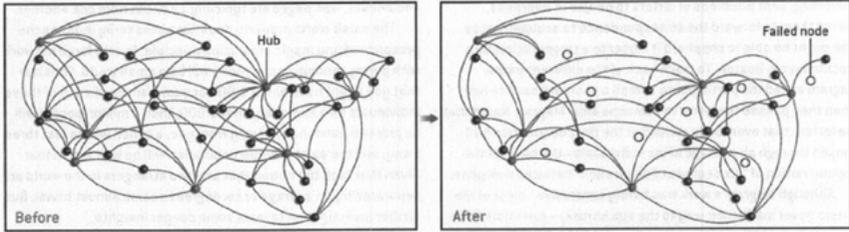
Scale-Free Network, Attack on Hubs
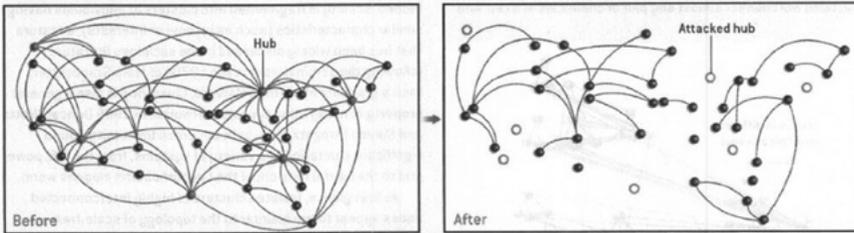
Random Network, Accidental Node Failure
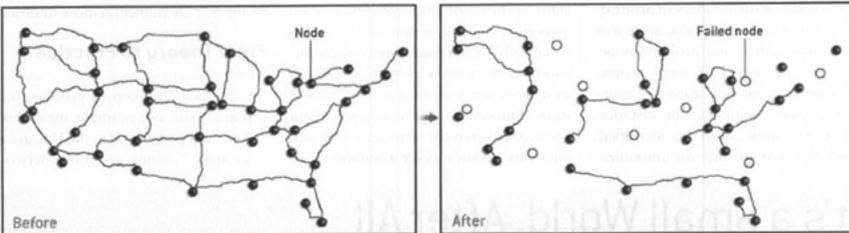
Fig. 9-11. Source: Barabási, Albert-László et al. (2003), pp. 50-59, 57.

duced in a moment, then limitless growth is possible and it retains its network characteristic, its power law. This simple rule prescribes that the preferential attachment of a new network node is proportional to the number of links that the attachment candidate already has[14]: a node preferably attaches itself to a highly connected node. Scale-free networks have their favorites, and most of the newcomers want to go there; it could be called a migration of lemmings, a star culture, a pop culture, the dominance of the taste of the masses or possibly: Favorite Contacts? If a network is generated like this, it is scale-free to a power of three.

Growth and preferential attachment are both driving forces behind scale-free networks, and that is also true for the internet. This explains why the internet has been able to undergo such breathtaking rates of growth without collapsing into itself: the

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14. Barabási, *Linked*, p. 96.

very large centers attract the greatest share of connectivity and they are the ones best able to handle it. Road traffic would have collapsed long ago if it had had to grow from four to seven hundred billion[15] in 40 years, as the number of internet hosts has. Unevenness provides stability.

Databases: The Citadels of the Web

The distribution of links in the World Wide Web can be estimated from a Nielsen study.[16] In terms of active use Google reaches about 90% of all WWW users, Facebook 73%, Wikipedia hovering over one-third with 38%.

These sites are the major nodes in the web. They administer an enormous number of links, Google for example now surely has several tens of billions of pages, and just as large a degree of distribution. It goes without saying that such an enormously large number of links on a website cannot be maintained by hand. The data are stored in gigantic databases; programs create websites as required by database contents. This is the obligatory structure of a really large website.

Databases facilitate access by the many; they compensate a disadvantage exhibited by the web as planned by Sir Tim Berners-Lee: with suitable technologies provided by the major database providers you can take part without having to understand much about technology. A content management system ensures that users can input data through web forms, which ends up in the databases and then, presented in websites, can be seen by others. This is how Google works, Facebook, Wikipedia, Twitter, Flickr, and all the others as well. And there isn't any other way to do it, since a connection of so many websites as there are now in the WWW is only possible through highly connected, automatically operated centers.

The equality that had been originally planned has been upset. Only completely unimportant sites still work according to the pattern that was originally planned. The web exists only through its most popular sites, which attract essentially all of the traffic. And, obviously enough, these sites must not be destroyed in order to maintain the internet's stability. This function of a highly sheltered place, unreachable by the public and the enemy likewise, a space fortified to guarantee power and prosperity of the sovereign, is in military jargon called a citadel.

The mechanisms of Web 1.0, which were supposedly so non-transparent and autocratic, were overturned. Even citadel web pages can no longer be linked, with only a few exceptions such as Wikipedia. A tweet cannot be referenced from outside Twitter just by using the URL in the address bar.

Within the Twitter citadel a reference in the form of a reply, a retweet, is the norm; references on the web are also allowed, but domination over the material of a database-supported website always means that you can only proceed if you follow the rules of the provider. The structure and function of a citadel page are specific and completely

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15. See, The Internet Systems Consortium, http://www.isc.org/solutions/survey/history.
16. 'Top 10 Global Web Parent Companies, Home & Work', Nielsen, September 2012, http://www. nielsen.com/us/en/insights/top10s/internet.html.

under the control of the provider. In Facebook you can only declare someone as a friend, but not as an enemy. Google Ads are excluded by providers, since after all this is a competition for domination on the web, and territories are being divided up. Even for Wikipedia, if you are not high enough in the Wikipedia hierarchy, a page can only be added by following a painstakingly difficult path through a bureaucratic system.

The original idea of the web, participation by everyone under equal conditions, no longer exists. In Web 2.0 everyone is allowed to take part, however only on the terms of the citadel rulers. Without the need for technical expertise, as was the case in the days of Web 1.0, everyone is able to disclose information about themselves and exchange personal data in return for the services of the database operation. The consequence is that databases are in many respects citadels in Web 2.0: as major nodes they have to hold the web together and so they are extremely well-protected, while they exercise unlimited power over the content and discourse. Michel Foucault had to write two books to describe this situation. In his *The Order of Discourse* he wrote, 'We must conceive of discourse as a violence which we do to things […]'.[17] He admonished us to analyze the discourse not by what is articulated but by what is excluded in addition to what is included. He couldn't anticipate that such exclusions and inclusions would be done algorithmically, embedded in technology. And we should add to his own observations that not only speaking and writing belong to the practices that structure discourse, but also silence in the form of listening and reading have to be considered part of these practices, even when humans are not involved but computer programs are. On this topic he had yet to write his book on panopticism.[18]

Today the role of social media in autocratic regimes is broadly discussed. The North African uprisings in Egypt, Tunisia, Libya or Syria are even called Facebook or Twitter revolutions by some. But we know that these companies themselves exercise power over the discourse. They do not permit censorship. They only let their databases be shut down by the U.S. government, as happened during the WikiLeaks scandal. Or, when the 'cloud' is operated on pontoons outside the territorial waters of a nation, not at all. They permit the self-organization of the masses on the boulevards of emerging countries. They transfer the communication structures of the rich Western world into the bazaars and in the deserts; and local governments can only attempt to turn off, as an access point to the citadels, the internet itself.

The communion in the databases of the Web 2.0 is about gathering in very special places, operated and monitored by private companies wanting to overhear the discourses taking place there in order to sell them to still other companies. Foucault wrote about panopticism:

> The ceremonies, the rituals, the marks by which the sovereign's surplus power was manifested are useless. There is a machinery that assures dissymmetry, disequilibrium, difference. Consequently, it does not matter who exercises power […] Similarly, it does not matter what motive animates him […] the external power

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17. Michel Foucault, *Die Ordnung des Diskurses*, Frankfurt/ M.: Fischer, 1996. p 34, translated in Robert Young (ed.) *Untying the Text: A Post-structuralist Reader,* London: Routledge & Kegan Paul, 1982, p. 67.
18. Michel Foucault, *Discipline & Punish: The Birth of the Prison*, New York: Vintage Books, 1995.

may throw off its physical weight; it tends to the non-corporal; and, the more it approaches this limit, the more constant, profound and permanent are its effects: it is a perpetual victory that avoids any physical confrontation and which is always decided in advance.[19]

The discursive power of the databases of stock market-listed companies pursues exclusively the goal of economically exploiting what is said and written. Censorship in the traditional sense of the term does not interest them; it would in fact be bad for business because it would falsify the discourse analysis, known today as data mining. And that is what is incompatible with the politics and culture of an autocratic state such as Tunisia or Libya.

In effect, the community of Web 2.0 forms a body as described by Thomas Hobbes in Leviathan. Only the image of the sovereign, which is formed by the bodies of the individuals, seems to be highly inappropriate today. In the left-hand the unavoidable can of Coke, in the right a credit card, on the head a baseball cap, on the body designer clothes and in front of the house an oversized SUV; this is how the Leviathan should be portrayed today. Just a good consumer, someone who allows himself to be courted and promoted, and is meant to enjoy this cosseted role. This life plan is a blueprint for the whole world, and there are worse guarantees for civil rights. To build a citadel that protects this model out of stone is no longer necessary, as this is done by databases in their air-conditioned and high-security data centers.

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19. Foucault, *Discipline & Punish*, p. 195.

**UNDER THE SKIN OF THE NETWORKS:
HOW CONCENTRATION AFFECTS SOCIAL PRACTICES
IN WEB 2.0 ENVIRONMENTS**

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ANDREA MICONI

WIKIPEDIA POWER OPEN
SOURCE NEW NUMBER LAW LINKS
BLOGS STUDY FREE SOFTWARE
DISTRIBUTION COMMUNITY

Let's go straight to the point: to what extent are Web 2.0 services – blogs, social media, communities, and all the environments we usually refer to as participative and free – really democratic? Whether it is due to structural or accidental factors, it seems evident that new hegemonies are taking place inside the horizontal pattern of the internet, to the point that nobody can still imagine that this pattern will eventually lead to a horizontal reconfiguration of society at large. On the contrary, we could question if the web, as such, is a participatory, egalitarian, and democratic structure, by analyzing some new foundings coming from both historical evidence and empirical research.

In the last few years, in fact, the discovery of the *power law* nature of the web[1] has opened up a new field of research, revealing that in the real networks, such as the World Wide Web, a majority of sites with very few links coexist with a few highly linked nodes, or 'hubs'. In other words, the power law structure is the mathematical demonstration of *inequality*, intended to be the main rule in the web's development.

This new field of research is now focused on the *concentration* mechanisms by which the most valuable resources of the web cluster around a small number of nodes: most of the traffic, an increasing number of documents, and, above all, the number of incoming links (and, consequently, the hierarchical ranking as determined by Google's algorithm). The most delicate aspect of the matter is, however, not so much the power law distribution of links, which has already been widely investigated,[2] as the impact of this structural inequality – the so-called 'predicable imbalance' of the Pareto Principle – on web surfing behavior, which, a little less predictably, appears to be subjected to increasing levels of concentration.[3] Being that the internet is affected by a huge concentration of resources, the way people use the web is revealing to be unequal and non-democratic in its turn.

1. Michalis Faloutsos, Petros Faloutsos and Christos Faloutsos. 'On Power-Law Relationship of the Internet Topology', *Proceedings of ACM Special Interest Group on Data Communication*', 1999, pp. 251-262.
2. Albert-László Barabási, 'The Physics of the Web', *Physics World*, July 2001, pp. 33-38.
3. Albert-László Barabási and Albert Réka, 'Emergence of Scaling in Random Networks', *Science* 286 (15 October 1999): 509-512; and Matthew Hindman, Kostas Tsioutsioulikis and Judy A. Johnson, '"Googlearchy": How a Few Heavily-Linked Sites Dominate Politics on the Web', Annual Meeting of The Midwest Political Science Association, 2003, http://www.cs.princeton.edu/~kt/mpsa03.pdf.

Let's consider the case of Twitter, the well-known microblogging platform, first released in 2006, and now very popular. A recent study conducted on 260 million tweets showed that 0.05% of the user population attracts over 50% of all attention,[4] following a statistical distribution that, with alarming symmetry, reflects the general consolidation of web traffic around a few major hubs. In the case of Twitter, however, this result is not so surprising: Twitter is in fact a micro-broadcasting platform where, as other studies show, 'the top influentials are retweeted or mentioned disproportionately more times than the majority of users',[5] following a power law distribution of information.[6] It is instead more interesting to examine what happens in other web domains, which are supposed to be characterized by more democratic and horizontal modes of participation. For this purpose, I am here going to consider about 40 studies related to three web environments, in ascending order of size: open source communities, where people cooperate in order to create and distribute free software applications; Wikipedia; and finally, the blog system.

Open Source Communities

Let's start with the open source communities: made up of free software activists, they are the privileged spaces for a vibrant participatory democracy, whether inspired by ideological motives, as traditionally pointed out, or by a more down-to-earth competitive advantage brought about by human cooperation, as stated in more recent studies.[7] It is only by engaging in voluntary acts of cooperation and peer production that it is actually possible to break free of the selfishness myth, claims Yochai Benkler[8], well-expressing the widespread tendency to overestimate a phenomenon that – apart from the successful case of Linux and a few others – has generally produced poor, if not disastrous, results.[9] This faith in the open source alternative, and in its capacity to bring out 'virtuous behaviours' from the grey and dull background of social relations[10] was already challenged by an old study showing that, among the 400 members of the Apache open source community, only 15 were responsible for over 90% of the changes to the code.[11] If such a concentration is also found in the development of free software, can we therefore conclude that there is no substantial difference between the open source organization and other production systems?

4. Shaomei Wu, Winter A. Mason, Jake M. Hofman and Duncan J. Watts, 'Who Says What to Whom on Twitter', 2011, http://research.yahoo.com/pub/3386.
5. Meeyoung Cha, Hamed Haddadi, Fabrício Benvenuto and Krishna P. Gummadi, 'Measuring User Influence in Twitter: The Million Follower Fallacy', Association for the Advancement of the Artificial Intelligence, 2010, http://an.kaist.ac.kr/~mycha/docs/icwsm2010_cha.pdf.
6. Eytan Bakshy, Jake M. Hofman, Winter A. Mason, and Duncan J. Watts, 'Identifying "Influencers" on Twitter', 2001, http://research.yahoo.com/files/bakshy_wsdm.pdf.
7. Yochai Benkler, *The Penguin and the Leviathan: How Cooperation Triumphs over Self-Interest*, New York, Crown Business, 2011.
8. Yochai, *The Penguin and the Leviathan,* pp. 5-7.
9. Clay Shirky, *Here Comes Everybody: The Power of Organizing Without Organizations*, New York: Penguin Press, 2008, p. 244.
10. Yochai Benkler and Helen Nissenbaum, 'Common-based Peer Production and Virtue', *The Journal of Political Philosophy* 14.4 (2006), pp. 409-411.
11. Audris Mockus, Roy T. Fielding and James Herbsleb, 'A Case Study of Open Source Software Development: The Apache Server', *Proceedings of the Twenty-Second International Conference on Software Engineering*, Limerick: ACM Press, 2000, pp. 266-267.

Of course, we can't. There are still many differences, especially with regard to the participants' motives, which are not always ascribable to the classical forms of legitimation of economic activities: the fleeting pleasure of intrinsic satisfaction;[12] the virtuous connection between effectiveness, ideological tenets, and mutual trust;[13] but also, and more realistically – as emerges from the interviews with about 80 participants in open source activities – the singular combination of an ideal ambition to increase one's 'human capital' and the concrete investment in the perspective of 'future monetary rewards'.[14] These differences are very significant, at least according to a widespread rhetoric, so much so that they constitute the revolutionary premises for a new social contract.[15] Nevertheless – and this is the point – they are still far from being translated into a *really alternative* working condition, free from hierarchical and authoritative structures. If we broaden the scope of the analysis to a wider community – considering not only the developers, but also the participants in the Apache discussion forum, in the period from 1996 to 1999 – the result is the same: the flow of information is 'relatively concentrated', because 50% of the answers are provided by the 100 most prolific providers, who only account for 2% of all providers.[16] The same result is also obtained by a similar study on the Mozilla development community, where 50% of the technical problems turn out to be fixed by a small minority of 113 users.[17] Further confirmation comes from an analogous study on the development of the Debian operating system, based on the Linux open source platform, which was originally inspired by radical participatory ideals and then, as in the worst-case scenario, ended up being subjected to a rigid centralization of management.[18] Open source software development does not lead to a 'self-organizing system' based on peer production processes, as another study points out, because projects are organized 'from above by developers and maintainers whose control and authority is important to the quality of the outcome'.[19] Although it is not a traditional authoritative power, adds Steve Weber[20] referring to the case of Linux, there is definitely a 'pyramidal flow' of information, a clear division of labor, and an organization that 'sounds very much like a hierarchical decision structure'.

Free software development may therefore be 'distributed', as the results of a more extensive survey confirm, but it is most certainly 'very top heavy': of more than 12,700

12. Clay Shirky, *Cognitive Surplus: Creativity and Generosity in a Connected Age*, London: Allen Lane, 2010, pp. 62-64; 78-82.
13. Katherine J. Stewart and Sanjay Gosain, 'The Impact of Ideology in Effectiveness in Open Source Software Development Teams', *MIS Quarterly* 20.2 (2006): 291-314.
14. Alexander Hars and Shaosong Ou, 'Working for Free? Motivations for Participating in Open-Source Projects', Proceedings of the 34th Hawaii International Conference on System Sciences, 2001, http://csdl2.computer.org/comp/proceedings/hicss/2001/0981/07/09817014.pdf.
15. Don Tapscott and Anthony D. Williams, *Wikinomics: How Mass Collaboration Changes Everything*, New York: Portfolio, 2006 p. 40; Benkler, *The Penguin and the Leviathan,* pp. 119-201.
16. Karim R. Lakhani and Eric von Hippel, 'How Open Source Software Works: "Free" User-to-User Assistance', *Research Policy* 32.6 (2003), p. 940.
17. Audris Mockus, Roy T. Fielding and James Herbsleb, 'Two Case Studies of Open Source Software Development: Apache and Mozilla', *ACM Transactions on Software Engineering and Methodology*, 11.3 (2002), p. 335.
18. Martin Krafft, 2005, *The Debian System*, San Francisco: No Starch Press, 2005, p. 54.
19. Paul P. Duguid, 'Limits of Self-Organization', *First Monday* 11.10 (2006), http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1405/1323.
20. Steven Weber, 2004, *The Success of Open Source*, Cambridge: Harvard University Press, 2004, pp. 187-188.

authors considered, only 10% accounted for more than 72% of the total code base, and the top 10 authors alone (0.08% of the total) were credited for about 20% of the overall result.[21] Commons-based peer production, observe Benkler and Nissenbaum,[22] emerges in environments driven by collaborative efforts and results from the meeting of free individuals allergic to 'managerial hierarchies'; but, as often happens with human things, the shattering of old hierarchies ends up producing *new* ones, as blatantly revealed by the statistical measures of online activities and by their compliance with the '80/20 rule' of power law distributions. However, this conclusion does not come as a surprise: open source communities are actually built around specific technical objectives; it is therefore inevitable that, over time, the leadership of the most expert individuals emerges, as many studies point out.[23] It is a meritocratic authority based on technical competence and therefore regarded as legitimate. However, is this the *only* reason or is there something more elusive, structural, and deep-rooted than that? To verify that, it is necessary to shift our attention to other web environments, where access skills become more widely available.

Wikipedia

Everybody knows Wikipedia and, what is more, everybody agrees on the fact that Wikipedia is the most successful collaborative project on the web. What is less well known, however, is that the distribution of updates per page follows a power law, fragmenting the encyclopedia's texture into a *core* of highly-linked pages, which stand out from an immense periphery of less visible content.[24] Although on a smaller scale, this brings us back to the initial question: if there is no democracy among the pages of Wikipedia, does it exist, at least, among the members of its community?

A friend of mine once told me of his interest in writing a Wikipedia article about a particular (and almost unknown) musical genre (a very narrow sub-genre, close to micro-music). He sent the proposal, which was eventually turned down, for the music he was interested in was supposed to be too elitist for Wikipedia's standard. Therefore, the answer not only revealed to me that some gatekeeping practices are affecting the political economy of the web, but at the same time showed how many selection criteria, that are decisive in this process, still depend upon traditional values, such as the supposed public interest of an item, the dictatorship of the active ones, and so forth. And so, what is really new in Wikipedia?

To better examine this issue, we should focus on the concept of 'edit wars': heated discussions about the correct version of a page, conflicts arising from consecutive revisions of contents, which are not confined to controversial topics, but are an in-

21. Rishab Aiyer Ghosh and Vipul Ved Prakash, 'The Orbiten Free Software Survey', *First Monday* 5.7 (2000), firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/769/678.
22. Benkler and Helen, 'Common-based Peer Production and Virtue': 394-419.
23. Josh Lerner and Jean Tirole, 'Some Simple Economics of Open Source', NBER Working Paper Series, 2002, http://www.nber.org/papers/w7600; Siobhán O'Mahony and Fabrizio Ferraro, 'The Emergence of Governance in an Open Source Community', *Academy of Management Journal* 50.5 (2007), p. 1093.
24. Luciana Buriol et al., 'Temporal Evolution of the Wikigraph', Proceedings of Web Intelligence, IEEE Press, Hong Kong, 2006, http://research.yahoo.com/pub/1662.

tegral part of Wikipedia's activities,[25] so much so as to spark a wider debate on the scope and inclusiveness of the project.[26] This is not, however, a conflict between equals: among the authors of Wikipedia there is actually a small number of 'strong' contributors, who actively work on the creation and revision of contents, and a greater number of 'weak' authors, who contribute only occasionally, usually on specific topics of interest – defined respectively as 'Zealots' and 'Good Samaritans'.[27] More prosaically, Bryant, Forte and Bruckman call them 'experts' and 'newcomers', insisting on the fact that the transparency of Wikipedia's structure makes it easier to keep revisions under control, relegating 'novices' to 'peripheral participation' with activities that 'carry low risk' to the community as a whole, so as to stabilize the internal hierarchies of the system.[28]

As for the above-mentioned edit wars, according to the partial statistics available, the frenetic growth of these disputes *is not accompanied* by a proportional increase in the number of revisions. The average number of edits per article is actually fairly low (roughly 11), at least in the English edition, and the number of unique users responsible for the edits is even smaller.[29] Another study, conducted on a small empirical data set consisting of seven articles, points out a further complication: in 70% of the cases, edits are made by a small number of repeat contributors, or habitual editors, with a great number of edits made by the initial article creators themselves.[30] Most significantly, over the five-month period examined – from February to July 2007 – a considerable amount of the initial content is left *unchanged*: between 76 and 98% of the original text, depending on the articles, undergoes no modification. Such a marked departure from the collaborative nature of the wiki format, both in terms of substance and figures, requires some explanations:

> One pattern we call *first-mover advantage*. The initial text of a page tends to survive longer and tends to suffer fewer modifications than later contributions to the same page. Our hypothesis is that the first person to create a page generally sets the tone of the article.[31]

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25. Fernanda B. Viégas, Martin Wattenberg and Dave Kushal, 'Studying Cooperation and Conflict between Authors with History Flow Visualizations', *CHI Paper* 6.1 (2004), p. 579.
26. Vasilis Kostakis, 'Peer governance and Wikipedia: Identifying and Understanding the Problems of Wikipedia's Governance', *First Monday* 15.3 (2010), http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2613/2479.
27. Denise Anthony, Sean W. Smith and Tim Williamson, 'The Quality of Open Source Production: Zealots and Good Samaritans in the Case of Wikipedia', Dartmouth College Computer Science Technical Report Series, September 27, http://www.cs.dartmouth.edu/reports/abstracts/TR2007-606.
28. Susan L. Bryant, Andrea Forte and Amy Bruckman, 'Becoming Wikipedian: Transformation of Participation in a Collaborative Online Encyclopedia', 2005, http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.62.5337, pp. 2-3.
29. Andrew Lih, 'Wikipedia as Participatory Journalism: Reliable Sources? Metrics for Evaluating Collaborative Media as a News Resource', Paper for the 5th International Symposium on Online Journalism, 2004, http://bsunytimes.pbworks.com/f/Wiki_News.pdf, pp. 7-8.
30. Katherine Ehmann, Andrew Large and Jamshid Behesti, 'Collaboration in Context: Comparing Article Evolution among Subject Disciplines in Wikipedia', *First Monday* 13.10 (2008), http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2217/2034.
31. Viégas, Wattenberg and Kushal, 'Studying Cooperation and Conflict between Authors with History Flow Visualizations', p. 580.

Now, the first-mover advantage – the benefits coming from the early occupation of a space, just like in the first pioneers' race toward the West – is a golden rule of the political economy of the Web,[32] so it is not surprising that it also applies to our case. The question is another: if the increasing collective participation in Wikipedia does not result in a more active work on the contents – which seems quite limited and shows no sign of increasing – where does it go?

Here we find a paradoxical trend. While social participation in Wikipedia continues to grow, the amount of *direct* work leading to new article contents proportionally tends to decline: the percentage of edits made to article pages has actually decreased over the years from 90% of all edits in 2001 to 70% in 2006, and the percentage of edits resulting in the creation of new pages has decreased to less than 10%.[33] In contrast, the amount of *indirect* work – which does not go into creating new topics and articles, but is spent on activities such as 'conflict resolution', 'consensus building', or 'community management' – has greatly increased.[34] Through these seemingly secondary and invisible communication channels, argues Benkler, Wikipedia allows its members to forge stronger connections and defines the boundaries of its own identity.[35] In other words, what Wikipedia is doing is laying down its own rules.

The quality and effectiveness of these rules are still to be established. On the one hand, interviews with members of the community seem to suggest an increasing decentralization;[36] on the other hand, there is relatively little empirical evidence to support this widely held view. Of the 29,000 registered users examined in a study, for example, 143 were administrators and only seven had developer rights and decision-making autonomy[37]: in other words, there are only a *few* arbitrators vested with the authority to ban other individuals from the game.[38] Wikipedia's organization chart, observes Christian Fuchs, can be described as a pyramid, with 'anonymous users' at the bottom, and above them in ascending order, 'registered users, ambassadors, mediators, administrators, arbitrators, developers and bureaucrats' (with Jimmy Wales at the top, acting as a sort of metaphysical 'benevolent dictator'), of which only the last four, at various levels, share decision-making responsibilities and power.[39] However, rising in the ranks is not difficult, continues Fuchs, and depends on the progressive acquisition of skills: an assumption that recalls the principle of 'meritocratic authority' of open source communities, which is however questioned by some critics, who report acts of sabotage, exclusion, and censorships carried out by administrators with the aim

32. Albert-László Barabási, *Linked: The New Science of Networks*, Cambridge, MA: Perseus, 2002, pp. 90-101.
33. Aniket Kittur et al., 'He Says, She Says: Conflict and Coordination in Wikipedia', 2007, p. 3, http://dl.acm.org/citation.cfm?id=1240698.
34. Kittur et al., 'He Says, She Says', 2007, p. 3, http://dl.acm.org/citation.cfm?id=1240698.
35. Benkler, *The Penguin and the Leviathan,* pp.103-104.
36. Andrea Forte and Amy Bruckman, 'Scaling Consensus: Increasing Decentralization in Wikipedia Governance', 2008, http://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/5638/ForteBruckmanScalingConsensus.pdf, p. 11.
37. Andrea Ciffolilli, 'Phantom Authority, Self-Selective Recruitment and Retention of Members in Virtual Communities: The Case of Wikipedia', *First Monday* 8.12 (2003), http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1108/1028.
38. Bryant, Forte and Bruckman, 'Becoming Wikipedian', p. 9.
39. Christian Fuchs, *Internet and Society: Social Theory in the Information Age*, New York: Routledge, 2008, p. 319.

of preserving the 'status quo' and keeping newcomers at bay.[40] Such a hierarchical structure is regarded as quite open and reversible by some, and rigid and inaccessible by others. So, have we really discovered something new in our exploration of the wiki world?

> The vast number of *policies* in Wikipedia […] indicate that *governance* is a thriving aspect of this community. […] In fact, Wikipedia's formalised processes […] seem to share several of the design principles found […] in offline, self-governed communities around the world.[41]

There is a 'hidden' order, according to Viégas, Wattenberg and McKeon; an invisible Foucault-like 'tyranny of structurelessness', adds Vasilis Kostakis,[42] here referring to the well-known paradigm of 'networks of power' first proposed by the French philosopher Michel Foucault. And this close relationship between network and power, here, means that Wikipedia, just like the whole Web 2.0, has not taken social experience out of the shadow of rules and dominion, but has merely submitted them to a different regime, with its own division of administrative roles, edit wars, conflicts triggered by revision processes, hidden mechanisms, and quibbles of new bureaucratic practices. If we look at the way Wikipedia actually works, conclude Emigh and Herring,[43] we can see that in order to establish itself as a repository of encyclopedic knowledge, it has been forced to set out some particularly strict rules, which were quite unprecedented in the wiki collaborative environments, to discover the function of procedures, codes, and network architectures. After all, as Lawrence Lessig puts it, on the web 'code is law'.[44]

The Blogosphere

Finally, there is the blogosphere, which, in some respects, represents the most extensive and accessible system, and therefore the one that was expected to constitute a really free and *equal* space of socialization. However, since its explosive growth in 2001, the picture has been less rosy, as a study conducted on about 25,000 blogs shows.[45] Right from the start, the increasing number of blogs has followed a curiously abrupt and discontinuous evolution, both on a *diachronic* level – because the quantitative growth is concentrated in short periods of extraordinary proliferation, or 'bursts', instead of being uniformly distributed over time – and on a *topological* level – because the distribution of links in the blog system follows the power law pattern, with a handful of sites accounting for almost all the blogroll links. This 'bursty' evolution has been

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40. Parker Peters, 'Lesson #2: Procedure vs Content, or "You Didn't Genuflect Deeply Enough"', Parker Peters Livejournal, 18 January 2007, parkerpeters.livejournal.com/1195.html.
41. Fernanda B. Viégas, Martin Wattenberg and Matthew M. McKeon, 'The Hidden Order of Wikipedia', Proceedings from Online Communities and Social Computing: Second International Conference, Olympia: Springer, 2007, p. 453.
42. Kostakis, 'Peer Governance and Wikipedia', p. 2.
43. William Emigh and Susan C. Herring, 'Collaborative Authoring on the Web: A Genre Analysis of Online Encyclopedias', Proceedings of the 38th Hawaii International Conference on System Sciences, 2005, http://www.ufrgs.br/limc/escritacoletiva/pdf/online_encyclopedias.pdf, p. 9.
44. Lawrence Lessig, *Code Version 2.0*, New York: Basic Books, 2006, pp. 1-8; 77.
45. Ravi Kumar et al., 'On the Bursty Evolution of Blogspace', Proceedings of the World Wide Web Conference, 2003, http://www2003.org/cdrom/papers/refereed/p477/p477-kumar/p477-kumar.htm.

confirmed by more recent studies, so much so that it has become an area of research in itself.[46] However, for space reasons, I will only focus on the second aspect: namely, the topological dimension of the relationships established within the blogosphere.

If the power law is the statistical measure of the connections established on the web – with a few nodes attracting the majority of links, acting as extremely powerful poles of attraction – the blogosphere is not an exception: even here, the in-links connecting one blog to the other are distributed unevenly, substantially following the 80/20 ratio of the Pareto Principle. In spite of its liveliness, the paradox of the Italian blogosphere, as Fabio Metitieri observes,[47] is the schizophrenic separation between hundreds of thousands of unknown bloggers and a very small number of blogs – no more than 200, starting with the striking case of Beppe Grillo – which actually draw the attention of the public. Apart from recalling some peculiarities of the Italian national history, this situation reflects a more general, and structural, trend: namely, the imbalance between the so-called 'A-list' – a small number of hyper-successful blogs, accounting for almost all the incoming links – and the vast majority of blogs collecting very few in-links, active but in fact invisible, lost in the remote peripheries of the web.[48]

The power law nature of the blogosphere has been widely demonstrated by a number of studies, all based on the quantitative analysis of links through automatic calculation programs called 'crawlers'. In the analysis conducted by Clay Shirky on a network of 433 blogs, for example, the top two sites accounted for 5% of the total inbound links, and the top 50 blogs (12% of the total) accounted for 50% of such links, clearly following a power law distribution pattern.[49] The same indications come from a study by Jason Kottke[50] on the top 100 blogs ranked by Technorati; by a larger study conducted by Cameron Marlow[51] on a network of 27,000 blogs; by a survey on a sample of 45,000 blogs and more than 2 million blog posts[52]; and by a study conducted by Farrell and Drezner on 4,500 political blogs, where the authors point out the presence of 'especially "attractive" focal points that will allow individuals to coordinate more easily',[53] commonly referred to by the literature as 'hubs'.

In order to have a clear idea of the phenomenon, we can consider the case of Beppe Grillo, the former Italian comedian that finally founded the political movement Cinque

46. Ravi Kumar et al., 'Structure and Evolution of Blogspace', *Communications of the ACM* 47 12 (2004): 35-39; Albert-László Barabási, *Bursts: The Hidden Pattern Behind Everything We Do*, New York: Dutton Books, 2010, pp.4-5.
47. Fabio Metitieri, *Il grande inganno del Web 2.0*, Roma-Bari: Laterza, 2009.
48. Mathieu O'Neil, 'Weblogs and Authority', Blogtalk Downunder Meeting, Technology University of Sidney, 2006, http://incsub.org/blogtalk/?page_id=107, p. 4.
49. Clay Shirky, 'Power Laws, Weblogs, and Inequality', posting to Networks, Economics and Culture mailing list, 8 February 2003, http://www.shirky.com/writings/powerlaw_weblog.html, pp. 1-2.
50. Jason Kottke, 'Weblogs and Power Laws', Kotke.org, 9 February 2003, www.kottke.org/03/02/weblogs-and-powerlaws.
51. Cameron Marlow, 'Audience, Structure and Authority in the Weblog Community', International Communication Association Conference, 2004, http://web.media.mit.edu/~cameron/cv/pubs/04-01.htm.
52. Jure Leskovec et al., 'Cascading Behavior in Large Blog Graphs', 2007, http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.117.9104.
53. Henry Farrell and Daniel W. Drezner, 'The Power and Politics of Blogs', *Public Choice* 134.1-2 (January 2008): 22.

Stelle (Five Stars), basically inspired by ecologist and anti-corruption instances, and by the rhetoric of web-based direct democracy as well. Even though his project is presented as a horizontal, non-bureaucratic and participative challenge to traditional vertical hierarchies and political parties, in fact, there is no such thing as a democratic process inside the movement. Discussions are limited to comments on topics submitted by Grillo himself in his blog, and usually don't affect the very profound levels of strategy and decision-making, while the role played by Beppe Grillo seems to reproduce a charismatic, old-style and populist form of power, resurfacing through the apparently egalitarian structure of the blogosphere. Such an old form of power, taking place in the new digital environment: is it an exception, in the way the Web 2.0 works, or is it the demonstration of an emerging process – and has the horizontal structure of the internet little or nothing to do with its real democracy?

Even other aspects of the blogosphere, then, seem to follow a similar statistical trend: both the frequency with which authors update their sites[54] and the number of posts produced,[55] for example, fall in the same power law distribution, showing an enormous gap between a vast majority of peripheral actors and a small number of particularly active nodes. On the whole, the power law has therefore been confirmed as the general model for the evolution of the web, exerting its influence over its most diverse segments. However, if the most crucial element in the process of 'self-organization' of the web is the incoming and outgoing link distribution,[56] it is probably on this aspect that we need focus in order to draw the most relevant conclusions.

The Pareto Principle, instead of a normal distribution, imposes a law of imbalance on the web, exactly as it helps to understand the inequality of income distribution, by showing that 20% of population usually collects 80% of revenue. In this regard, Clay Shirky observes that the power law is not exactly a discontinuous trend: apart from the top most-linked nodes – incomparably more connected than the others – all the other nodes have a similar number of inbound links, because in a power law distribution, the gap between the first and second position is larger than the gap between second and third, and so on.[57] From this point of view, the blogosphere ends up taking on the paradoxical shape of a pyramid, with a very large base extremely distant from the apex: the reason is that the most successful blogs serve the purpose of selecting the topics of discussion for all the others – observe Farrell and Drezner[58] – which in turn link to the most important ones in hopes of indirectly gaining some sort of visibility. This contrast between a handful of successful nodes and an endless host of subjects is more than just a statistical measure: it also reflects the difference of credibility and authority between a small number of individuals, organizations or institutions, and the vast majority of others, in a sort of paradoxi-

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54. Cameron Marlow, 'Investment and Attention in the Weblog Community', American Association for Artificial Intelligence, 2006, http://alumni.media.mit.edu, pp. 1-5.
55. Daniel Gruhl et al., 'Information Diffusion Through Blogspace', Proceedings of the 13th International World Wide Web Conference, 2004, http://people.csail.mit.edu/dln/papers/blogs/idib.pdf.
56. Albert-László Barabási, Réka Albert and Hawoong Jeong, 'Scale-Free Characteristics of Random Networks: The Topology of the World-Wide Web', *Physica A* 281.1-4 (June 2005), p. 69.
57. Shirky, *Here Comes Everybody,* pp. 124-125.
58. Farrell and Drezner, 'The Power and Politics of Blogs', p. 22.

cal return to a charismatic form of power, argues Mathieu O'Neil,[59] which unexpectedly emerges from the folds of innovation. A confirmation of the charismatic nature of these hegemonic positions comes from the above-mentioned study by Cameron Marlow, and by his distinction between blogroll links, which point to the front page of a site, and the so-called 'permalinks', which instead point to the deep content of the archives, where a specific topic is developed. The distribution of permalinks, elsewhere defined as 'dynamic links', is actually much less uneven than that of the 'static' blogroll links: this is probably a sign that, whereas the discussion of a topic can follow a wide range of different paths, the links pointing to the front page of a blog are instead influenced by the aura of its author, and therefore show a higher concentration.[60]

Power on the Web

Now, how can these indications be generalized, and to what extent do they really tell us something about the configurations of power on the web? First of all – insisting on the different qualitative and quantitative dimensions of open source communities, Wikipedia, and of the wider blogspace – a number of studies seem to confirm the *scale-free* nature of the web: that is, its *fractal* property of falling in the same aggregation law regardless of the network size.[61] With regard to the initial hypothesis, these studies seem to confirm the suspicion that the tendency of the web to cluster around a few 'hubs' has an impact on its moral economy: 'the pattern doesn't apply just to goods', argues Shirky,[62] with their power law curve and 'long tail' effects, but to 'social interactions' as well. However, in terms of social theory, this issue seems to remain quite elusive because these statistics cannot be turned into a general theory on the web experience, and do not provide an exhaustive mapping of the various fields of observation (open source, Wikipedia, blogs), of which we are still far from having a complete understanding. Even if we limit the analysis to the case of Wikipedia, just to mention one, an empirical study shows that the 'power distance' – that is, the distance between the most central members and the less influential ones – varies across different national contexts, at least between France, Germany, Holland, and Japan[63]; if the power distance index even fluctuates among the local domains of the same community, thinking about a general theory of web hierarchies appear quite unrealistic.

Across the web we seem to be witnessing the emergence of different trends: the 'meritocratic' authority of open source groups, which brings the progressive and audacious ideology of the early internet communities into the age of Web 2.0; the 'procedural' tyranny of Wikipedia, which operates under the surface of our perceptions, through a hidden intertwining of rules, protocols, and roles; and finally, the charismatic power of the blogosphere, where words still have the face of those who utter them, and their emergence gives a sudden twist to the development and patterns of legitimation of the

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59. O'Neil, 'Weblogs and Authority', p. 4; Mathieu O'Neil, *Cyberchiefs: Autonomy and Authority in Online Tribes*, London: Pluto Press, 2009, p.116.
60. Marlow, 'Audience, Structure and Authority in the Weblog Community', pp. 6-8; Marlow, 'Investment and Attention in the Weblog Community', p. 7.
61. Barabási and Albert, 'Emergence of Scaling in Random Networks', pp. 509-510.
62. Shirky, *Here Comes Everybody,* p. 126.
63. Ulrike Pfeil, Panayiotis Zaphiris and Chee Ang, 'Cultural Differences in Collaborative Authoring of Wikipedia', *Journal of Computer-Mediated Communication* 12.1 (2006), http://jcmc.indiana.edu/vol12/issue1/pfeil.html.

web ecosystem. These three different trends however share a common feature: *none of them* suggests a decentralized, democratic, or equal evolution of the web; on the contrary, all of them, each in their own way, imply more or less new levels of dissymmetry and power, of *inequality*. It is therefore from here that the imaginative effort of the theory should begin.

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COLLECTIVE INDIVIDUATION:
THE FUTURE OF
THE SOCIAL WEB

/

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SOCIAL COLLECTIVE FACEBOOK
NETWORKS INDIVIDUATION WEB
DIGITAL DATA WORLD USERS
RELATIONSHIPS INDIVIDUAL

We are in the epoch of networks. The world is now rapidly being perceived as a vast space of interlocking networks of seemingly infinite variety: biological, productive, cybernetic, and – most important of all – social. The *image of the network,* with its obvious bias towards vision, has become the paradigmatic representation of understanding our present technological society as a holistic entity that would otherwise escape our cognitive grasp. Yet no image is ideologically neutral, for the image of the network is also a mediation between the subject and object that inscribes – or pre-programs – a certain conceptual apparatus onto the world, namely that of nodes and links (or in graph-theoretic terms, vertices and edges). This is not without consequences: due to its grasp over our imagination, the network constitutes the horizon of possible invention, as Simondon showed in *Imagination et Invention.*[1] Yet where did the concept of the network itself come from? Despite the hyperbole over the dominance of digital social networks like Facebook, the concept of the quantified social network pre-dates digital social networks, originating from the work of the psychologist Moreno in the late 1930s, and we argue that what the advent of the digital computer has done has primarily been the acceleration of the pre-digital conceptual apparatus of networks. Although no one can deny its now global influence, the fundamentally ontological presumptions of the social network have yet to be explored despite its present preponderance. To borrow some terms from Bernard Stiegler, how does the *what* of Facebook constitute our *who?*[2]

The Industrialization of Social Relations

J.L. Moreno (1889-1974), psychologist and the founder of sociometry was one of the first sociologists to demonstrate the value of graph-theoretic approaches to social relationships. The work of Moreno in the late 1930s and 1940s descends directly from psychology, historically preceding both cybernetics and the internet. The most-often quoted example is Moreno's work at the New York State Training School for Girls Hudson where the runaway rate of the girls was 14 times more than the norm. Moreno identified it as a consequence of the particular network of social relationships amongst the girls in the school, and he followed up on that by creating a simple sociological survey to help him 'map the network' or create what he considered a 'sociogram', which is nothing other than the familiar mapping of persons to nodes and relation-

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1.   Gilbert Simondon, *Imagination et Invention*, Chatou: Editions de la Transparence, 2008.
2.   Bernard Stiegler, 'Who? What? The Invention of the Human', in Bernard Stiegler, *Technics and Time, 1: The Fault of Epimetheus*, trans. Richard Beardsworth and George Collins, Palo Alto, CA: Stanford University Press, 1998, pp. 134-180.

ships to links. The survey consists of simple questions such as 'Who do you want to sit next to?' Moreno found from the map that the actual allocation plan of the girls in different dormitories created conflicts; he then used the same model to propose another allocation plan that successfully reduced the number of runaways. This belief in the representation of social relations by 'charting' prompted Moreno to write that 'as the pattern of the social universe is not visible to us, it is made visible through charting. Therefore the sociometric chart is the more useful the more accurately and realistically it portrays the relations discovered'.[3] To Moreno, the charting of social relationships was no longer a mere representation of social relationships, these maps of social relationships could re-engineer social life, dubbed by Moreno as a new kind of social planning that would reorganize 'organic' social relationships with the help of pre-planned and technologically-embodied social networks. Already in 1941, Moreno had proposed that the superimposition of technical social networks upon pre-existing social networks 'produces a situation that takes society unaware and removes it more and more from human control'.[4] This loss of control is currently the central problem of the technical social networks, and in order to address this phenomenon, we propose to question some of the ontological presuppositions that have been hidden in the historical development of social network analysis.

Despite their explicit mapping of social relationships, social networking analysis is actually an extreme expression of social atomism. This proposition has to be understood sociologically and philosophically: the presupposition of the social network is that individuals constitute the network, and hence individuals – which in traditional sociology tend to be human individuals although they could also be other fully individuated actors such as animals or nation states – are the basic unchanging units of the social network. If there is any collectivity at all, it is considered primarily as the sum of the individuals and their social relationships as represented by the map of the quantified 'social graph', which gives mathematical precision to the concepts of social networks. This view is at odds with what has been widely understood in anthropology: namely that a society, community, or some other collectivity exist beyond the mere sum of individuals and their relationships, and are deeply embedded in their technical, historical, and even zoological world. It can be noted that the development of collectives has historically existed in the form of families, clans, tribes, and so on, and even pre-dates the notion of the autonomous individual.

At the same time, the combination of the social and the network also reactivates the spirit of industrialization, which can be traced back far before Moreno to the 19th century French socialist philosopher Henri de Saint-Simon. Pierre Musso showed that Saint-Simon was the first philosopher who fully conceptualized the idea of networks via his understanding of physiology, which Saint-Simon then used to analyze vastly different domains, albeit more imaginatively and not in the mathematical terms done later by Moreno. Saint-Simon indeed envisioned networks for communication, transportation, and the like, holding the idea of a network as both his primary concept and tool for social transformation. Saint-Simon believed that through industrialization, it would be

3. J.L. Moreno, *Who Shall Survive? Foundations of Sociometry, Group Psychotherapy and Sociodrama*, New York: Beacon House, 1978, p. 95.
4. J.L. Moreno, Foundations of Sociometry: An Introduction in Sociometry', *American Sociological Association* 4.1 (February, 1941): 15-35.

possible to create a socialist state by reallocating wealth and resources from the rich to the poor as well as from the talented to the less talented via a system of networks, like an organism attains its inner equilibrium by unblocking all the circulations.[5]

Today we know from history that Saint-Simon's sociology was blind to the questions of political economy (and thus, inevitably, the question of class) that was later analyzed by Karl Marx in *Das Kapital*.[6] However, there still appears to be a hint of liberation in the spread of digital social networking, as it seems that the frictionless mediation of networks also releases the imagination of a new kind of democratic society. By 'frictionless' we mean the conceptualization of a more flattened social structure that lets previously isolated components of society engage with each other – even on a global level. This phenomenon has been characterized by slogans such as 'Here Comes Everybody'; one can use Facebook and other social tools, such as Twitter, to autonomously organize events, movements, and even revolutions. For Moreno, the sociometric revolution never gets rid of its own shadow.

The graphical portrayal of social networks as nodes and links reinforces the philosophical assumption that social relations always exist in a reified manner as 'links' between one atomic unit and another. One can imagine that the image of a social network as merely lines between dots constrains the horizon of innovation, as such a primitive image cannot understand how to graphically represent any collectivity beyond the individual as primary, and instead always takes any collectivity as a consequence or byproduct of the map of interconnected atoms. Seeing each individual as a social atom already implies an extreme form of individualism that intrinsically dismisses the position of collectivity.

Social networking sites like Facebook stay within this paradigm by providing only digital representations of social relations that often pre-exist in some richer social space, and allows new associations based primarily on different discovery algorithms to emerge. Yet how many genuinely new friends has one met through Facebook without first meeting in either another non-digital or digital realm? As these, as Adorno might put it, 'non-identical' (*das Nichtidentische*) social relationships are flattened into the identical space of 'friend', Facebook's very existence relies largely on the presupposition of individualism, as the primary unit in Facebook is always the individual's Facebook profile.[7] Thus, the nodes on Facebook began first as people whose only relationship could be 'friends'. More recently, certain linear modifications of Facebook's concept of friendship have bifurcated into other categories such as 'close friend' or 'acquaintance' (although concepts such as 'hostile' and 'enemy' are of course forbidden except on satirical social networking sites such as Hatebook[8]). Recently Facebook has subsumed new types of objects, such as places and brands, as nodes in their network, this time connected by 'like' relationships.

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5.   Pierre Musso, 'Aux origines du concept moderne: corps et réseau dans la philosophie de Saint Simon', *Quaderni* 3 (Hiver 87/88): 11-29.
6.   Karl Marx, *Capital: Volume 1: A Critique of Political Economy,* trans. Ben Fowkes, New York: Penguin Classics, 1992 (1867).
7.   Theodor Adorno, *Negative Dialectics*, trans. E. B. Ashton, New York: Seabury Press, 1973 (1966).
8.   See, http://www.hatebook.org/.

Despite their optimization for gathering marketing data on atomized individuals, one cannot deny that these digital social networks are able to bring people together and form groups whose activity ranges beyond shopping to spreading censored news and even political protest. Yet we have to be careful to praise social networking platforms like Twitter.

When users are considered as social atoms superimposed onto a technological network, the spontaneity and innovation within their possible collective intelligence is deformed by the control of the networks, driven as it is by intensive marketing and consumerism aimed at individuals rather than the development of the potential of the group. Within the social network, the individual subject is an atom and subjectivation becomes an engineering process under intensive monitoring and control. Thus, social networking would be considered by theorists like François Perroux as a source of a new form of alienation via denial of collectivity.[9] There is no formation of a group conditioned by a common project that designates an investment of attention, libidinal energy, and time. What happens today on Facebook, Twitter, and the like, is the reverse, which in spite of being the virtual home of a truly massive ensemble of humans, never form a collective project of 'being-together'. In an almost cruel mockery of being together, the time and the attention of each social atom is chopped into smaller pieces and dispersed on social networks by status updates, interactions, advertisements, and the like. Bernard Stiegler would hold that these constructed social atoms are not actually 'individuals', but disindividuals, as they seem to have lost their ability to act out except within the apparatus of an atomistic social network, whose social reproduction is guaranteed by its peculiar technical form.[10]

Decentralization and the Social Web

If Facebook, as the predominant example of a centralized digital social networking platform, is to be considered the apex of the industrialization of social relationships, can users escape their reduction to social atoms by simply decentralizing Facebook? Indeed, it is this simplistic response to the problem of social networking that has been taken on by most hackers, ranging from well-known Diaspora to more successful projects built on standards for open social networking like Status.Net. However, these hackers and social 'startup' companies may be forgetting the history of the social web and centralization. While there were at first a large variety of digital social networking sites, such as LiveJournal, Tribe.net, Friendster, and Orkut, these sites eventually began consolidating. Compared to its predecessors like MySpace, the primary advantage of Facebook was its consistent user interface along with its initial targeting of exclusive colleges like Harvard, thus capitalizing on the placement of its users within digital social networks as a way to judge social status. Furthermore, in order to prevent itself from being disrupted by the next social network, Facebook created the Facebook

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9.   The French economist François Perroux took up the question of industry and social transformation from Saint-Simon and developed a vision of collective creation in which humans and machines act on each other, and through the standardization of objects, human beings can renew their life style, and produce a system of 'auto collective creation'. Notably Perroux was also influenced by Joseph Schumpeter, especially the concept of creative destruction. François Perroux, *Industrie et création collective, tome I: Saint-simonisme du XXe siècle et création collective*, Paris: Press Universitaire de France, 1964.

10.   Bernard Stiegler, *États de choc: Bêtise et savoir au XXIe Siècle*, Paris: Fayard/Mille et une Nuit, 2012.

Developer Platform for building apps that could run on top of Facebook, which cleverly violated the classical model of 'creative destruction' attributed to economist and political scientist Joseph Schumpeter.[11] In this way, Facebook could capture developers and trap them in its 'walled garden' while allowing them to build their own business on top of Facebook, thus transforming Facebook from a mere social networking website into an all-encompassing social platform.

From the beginning of digital social networking, there was also a spreading realization that the centralization of social relationships carries dangers. Perhaps the first case in point came in 2005, when Orkut was shutdown by the Iranian government, followed shortly by other social networking sites. As Dan Brickley, at the time a staff member of the World Wide Web Consortium (the W3C, world's foremost standards body for the Web, which maintains HTML as well as other standards), wrote, 'There go 65,000+ Iranian blogs (per blogcensus) and 7%+ of Orkut's user base, in a flip of a switch'.[12] At that time Dan Brickley was working with Tim Berners-Lee, who is widely acclaimed as the inventor of the web, on creating what Berners-Lee termed the 'Semantic Web', the ambitious transformation from a web of documents to a semantic web of linked data, where data would be given a 'well-defined' meaning. Tim Berners-Lee felt that by releasing not only the world's text, but also decentralizing the world's data from various closed databases would lead to a giant explosion of innovation. The first step was RDF (Resource Description Framework), an open and extensible data format meant to describe metadata about literally anything in a simple knowledge representation language based on the form of a network: namely nodes and links, where the nodes represent subjects and objects, and the links predicates between them.[13] Using RDF, Brickley decided to create the *Friend of a Friend* (FOAF) project in order to '[create] a Web of machine-readable pages describing people, the links between them and the things they create and do […] FOAF defines an open, decentralized technology for connecting social Web sites, and the people they describe'.[14] Dan Brickley hoped that by having such a standard for data portability, users could move their data with them wherever they wished, escaping the problem of having their data destroyed when their digital social networking site disappeared.

Brad Fitzpatrick, founder of the social networking site LiveJournal, was the first champion of opening the social graph. At first he started allowing users to 'export' FOAF profiles from LiveJournal so that they could control their own data and move it to other FOAF-supporting sites. In his essay 'Thoughts on the Social Graph', co-edited by (at the time) fellow employee David Recordon of Six Apart, Fitzpatrick stated that,

> There are an increasing number of new "social applications" as well as traditional application[s] which either require the "social graph" or that could provide better value to users by utilizing information in the social graph [...] Unfortunately, there doesn't exist a single social graph (or even multiple which interoperate) that's com-

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11. Joseph Schumpeter, *Capitalism, Socialism and Democracy*, London: Routledge, 2003 (1943). For more on 'creative destruction' see, http://en.wikipedia.org/wiki/Creative_destruction.

12. Dan Brickley, 'Re: Twitter and Iran Elections', posting to W3C mailing list, 16 June 2009, http://lists.w3.org/Archives/Public/public-xg-socialweb/2009Jun/0096.html.

13. For more on RDF see, http://www.w3.org/TR/2004/REC-rdf-concepts-20040210/.

14. See, http://www.foaf-project.org/.

prehensive and decentralized. Rather, there exists hundreds of disperse social graphs, most of dubious quality and many of them walled gardens.[15]

So Fitzpatrick declared that society should 'ultimately make the social graph a community asset' in order to 'make graph data as portable as documents are on a personal computer'.[16] A flurry of work began to create the specifications needed to create a decentralized social web. Under the slogan the 'Federated Social Web', various companies such as Status.Net (formerly identi.ca) began producing working code demonstrating the potential for creating a genuine decentralized and social open web built on standards, where data such as status updates and profiles could be seamlessly shared between multiple servers – an impressive technical feat to say the least.

Little of this work to decentralize the social web had any impact beyond the world of hackers and social web enthusiasts, although it did land a few of the decentralized social networking pioneers jobs at companies such as Facebook and Google. Fitzpatrick's co-author David Recordon left Six Apart and became the first standards manager at Facebook, in part at least to his original work around Open Authorization (OAuth), OpenID, and his work on the decentralized social graph. At Facebook, Recordon became interested in Berners-Lee's Semantic Web, discussing the matter with FOAF inventor Dan Brickley, and rumors spread that Facebook might 'open' up its social platform. Yet what happened was even more interesting: the Like Button was released, officially called the 'Open Graph Protocol'.[17] Facebook cleverly used the open standards of RDF to allow webmasters to describe their web page as one of a finite number of commodities (movie, person, book, place, etc.) and then combine that with Javascript to send the data from any website off to Facebook. Unlike the hyperlinks crawled by Google, the information about which user 'likes' a commodity are not revealed to the owner of the website and not even kept by the users themselves, but instead shipped off to a centralized database in Facebook. Ironically enough, Facebook used the open standard Semantic Web to build a genuinely closed platform consisting of a single relationship, 'like', throughout the entire Web! In a panic at Facebook's growing dominance over the social web, Google hired many of the key players behind the decentralized social web, such as Brad Fitzpatrick and Dan Brickley, Joseph Smarr, Chris Messina, and the like, some of whom went on to build their own Google+ product. But so far, Google+ has yet to become the heart of a decentralized social web.

The key is that the decentralization of social networking simply is the spread of social networking, and as such is actually compatible with the spread of the 'open' business models of centralized platforms that do nothing to challenge the ontological presuppositions of social networking itself. The decentralized nature of the Semantic Web led to the creation of the massively centralized Like button, which shows that it is not as simple as putting centralized digital social networks against a decentralized social web. Decentralization is never fully complete and often contradictory. Even though we can say the internet is decentralized in terms of IP addresses, at the present moment,

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15. Brad Fitzpatrick and David Recordon, 'Thoughts on the Social Graph', bradfitz.com, 17 August 2007, http://bradfitz.com/social-graph-problem/.
16. Brad Fitzpatrick and David Recordon, 'Thoughts on the Social Graph'.
17. For more on 'Open Graph Protocol' see, http://ogp.me/.

the extraction of monetary value through the servers and database of Google and Facebook remain centralized.

The term 'decentralization' demands further scrutiny, for the crux of the philosophical matter at hand is that even in decentralized systems, there is never a challenge to the ontological reduction of humans to atoms and relationships to links between atoms. The failure to move beyond this gives real human users little reason to adopt alternatives to centralized digital social networking platforms and their management of the social. We admit that decentralization is often a desirable characteristic, yet we must remember that decentralization doesn't necessarily imply a positive reading of the term, which would simplistically lead to a certain fetishism of peer-to-peer systems. That being said, the reverse move, to believe that decentralization is always negative, would paint us into a corner where we could only point out like Galloway how networks imply control.[18] Instead, rather useful to us is Bernard Stiegler's term where the technology of decentralization is always a *pharmacon,* something that is simultaneously positive and negative, a remedy and a poison.[19] Thus, it should come as no surprise that the mass adoption of centralized digital social networking platforms implies both the spread of democracy as witnessed by the role of Twitter and Facebook in various protests in 2011, and social control, as witnessed by the surveillance and destruction of some of these movements via the very same technology. The point of exploring how the 'new' phenomenon of social networking is embedded within a larger ideological apparatus that is more than half a century old, is not merely some critical revealing of 'truth content', for we also hold that the possibilities of imagination and invention can still open a new space for individuation by consciously analyzing and moving beyond the rigid and paltry ontological assumptions of the classical representation of social networks by graphs. Decentralization is not, and never will be, enough.

Collective Individuation
Is it possible to rethink the notion of collectivity as a remedy to the individualized atomism of the current digital social networks? This doesn't mean that we want to erase the individual and replace its singularity by some kind of mystical and reified collectivity with potentially dubious political implications as witnessed by Stalinist collectivism. Rather, we want the collective and individual to co-create each other, like the necessary relationship of propagation between certain flowers and honeybees. Sociometry demands a mapping that is ever more precise in order to accurately reflect and predict the probabilities of connections and interactions so the profit margins of the platform itself can be maximized via marketing; and thus technological individuation within digital social networking easily slips back into *disindividuation*. Can we think of a new kind of individuation that neither glorifies nor rejects the possibilities of digital social technologies? A model of individuation that can be therapeutic to the current disindividualizing concept of the social presupposed by networks – and socio-technically engineered by them in practice! – is precisely what Gilbert Simondon proposed in his book *L'individuation Psychique et Collective.*[20]

18. Alexander Galloway, *Protocol: How Control Exists after Decentralization*, Boston: MIT Press, 2006.

19. Bernard Stiegler, *Ce qui fait que la vie vaut la peine d'être vécue: De la pharmacologie*, Paris: Flammarion, 2010.

20. Gilbert Simondon, *L'individuation Psychique et Collective*, Paris: Editions Aubier, 1989.

Simondon suggests that individuation is always both psychic and collective. What Simondon means by psychic individuation is the formation of the psychology of individuals, as can be exemplified by their being in the situation of anxiety, grief, anger, and so on. By collective Simondon points out that the formation of these individual states are inevitably linked to the wider social and technical world. Yet the binary of the psychic and collective are not enough, but have to be thought simultaneously. Individuals and groups are not opposing, the individual and the collective constitute a constant process of individuation. Psychic individuation to Simondon is more a simple individualization, which is also the condition of individuation, while collective individuation is the process that brings the individual into a state of constant transformation.

The formation of the collective is often reduced to considerations such as 'why the individual wants to participate', a typical question for those who do marketing or plan startup ventures. This question only views social norms and collectives as predefined structures, supposing falsely that in order to create a collective, an engineering methodology needs to immediately set up the social categories and 'mold' the involved individuals according to these pre-configurations. Simondon considers individuation as a process akin to that of crystallization. Likewise, one can see the genesis of a group as a kind of individuation, so that each individual is at the same time both an agent and a milieu. One may ask: isn't what we have seen on Facebook already a psychic and collective individuation? It is true that the philosophical approaches of Simondon can become tools to analyze social relations, but one must go beyond the limit to grasp that these theories are not merely tools of analysis, and recognize that these concepts are also tools for transformation. As we have seen, Facebook individuates primarily atomistic individuals. Thus, a genuine alternative to Facebook would not copy its features, but begin from somewhere completely different: namely starting from the collective in order to redesign the relation between the individual and the collective. Instead of asking how atomized individuals form collectives, we must find out how a collective social network changes and shapes individuals, and take this phenomenon as primary.

Hence, we want to reflect on the question of the group, and propose that what distinguishes a collective from an individual is the question of a common project pertaining to the groups that then shape the process of collective individuation. Take for example Ushahidi, a website that provided a crowdsourced mapping service built on top of Google Maps that originated as an attempt to monitor violence around the Kenyan elections. After the earthquake in Haiti in 2010, in order to help recover from the catastrophe, Ushahidi enabled both local and overseas volunteers to collect SMS messages via a special hashtag in order to map the crisis, saving people in Haiti who might have otherwise been lost. After the earthquake and tsunami that hit Japan in 2011, engineers from Japan developed a map of the damages caused by the tsunami and the emergencies that needed to be taken care of by analyzing tweets and other social media. The dynamics of these projects go far beyond simply posting individual status updates, and allow people to actively work together on common goals, thus developing a collective projectuality. It is the moment of the formation of projects that allows the individuals to individuate themselves through the collective, and so gives meaning to the investments of individuals. On Facebook, one can establish a group, a page, an event, but neither Facebook nor Google+ and Twitter provide the tools for collective individuation based on collaboration. In other words, on Facebook a group is no dif-

ferent from an individual, yet another atom in a network. We want to go beyond atoms and links, beyond nodes and vertices!

Collective Social Networking

Let us be clear: our argument is with the philosophical assumptions that social networks make concerning individuals and their relationships, so that precisely by changing those assumptions, we can imagine social networking to be transformed into a technology for collective individuation. Passing from a glimpse of a new kind of philosophical model of collective individuation to its realization in a technical system, we propose that the social networking sites should exist as a dynamic and open-ended set of tools to enable the creation and administration of collective projects. Collective intelligence can then become actual insofar as the group successfully uses its bio-technical abilities to accomplish whatever goals arise from the process of collective individuation. So, a user must always belong to a particular collective project, without which he or she will not be able to fully utilize the features and data defined by such a platform. Each collective project could be defined by an agreed upon goal, and requirements of fulfillment are collectively initiated and updated by 'members' of the group, those that go through collective individuation together. Tasks can then be assigned either in the form of individual actions or subgroups, and the progress of the tasks should be monitored and indicated. However, the collective should be dynamic rather than static, groups can be merged together to form larger projects at any time, and a project can also be split into smaller collectives. In this manner, collectives can discover each other and communicate to seek possibilities of collaborations and information sharing.

Interestingly enough, the only successful examples of alternative digital social networks are ones that integrate a collective functionality for grassroots political projects. Indeed, the first Web 2.0 site ran by user-contributed content was arguably Indymedia, the global network of independent media centers set up in the wake of the alter-globalization movement at the turn of the millennium.[21] Almost all websites for mass media channels now feature the once-innovative open commenting of Indymedia. Furthermore, the original activists and programmers that imagined an 'augmented social network' that would 'enhance the ability of citizens to form relationships and self-organize around shared interests in communities of practice in order to better engage in the process of democratic governance'[22] seems to have for the most part surrendered, and are now either working for traditional digital social networks, or perhaps playing the 'long game' to realize their original vision. Finally, ranging from FOAF to Diaspora,[23] the success of these alternatives to Facebook and Twitter can be objectively measured in terms of their users and their consistent long-term growth. While alternative social networks such as Diaspora had a temporary large influx of users due to their coverage by mainstream media like *The New York Times*, they never offered the collaborative tools needed for collective individuation. Thus unable to differentiate themselves from Facebook in a way that users could understand, except in terms of abstract values and

21. See, https://www.indymedia.org/.
22. Ken Jordan, Jan Hauser and Steven Foster, 'The Augmented Social Network: Building Identity and Trust into the Next-generation Internet', *First Monday* 8.8 (4 August 2003), http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1068/988.
23. See, https://joindiaspora.com/.

an engineering design, their users eventually lost interest and even today its remaining founders are moving to different projects. Furthermore, any protocol that only creates a decentralization of social networking is, at best, subsumed into current social networking platforms like Facebook or Google+. More likely, any supposed alternative that does not go beyond the conception of a primitive social physics, social atoms linked by reified social relationships, simply withers and dies. Despite critique after critique of centralized digital social networking platforms, the conceptual apparatus of such a primitive social physics seems to have little impact on activists, who from the Egyptian Revolution to #occupy all regularly use traditional atomistic networks like Twitter and Facebook, primarily for publicity due to the massive numbers of people on them. It is simply the most efficient way to get news out. It still seems rather paltry that the end result of the global interconnection of humanity via digital social networking is the sharing of photos and 140 character cries for attention.

Closer inspection reveals that activists organize amongst themselves not on Facebook and Twitter but on little-known alternative social networks such as the decentralized digital social network Lorea[24], and the Crabgrass[25] social network run by the activist server riseup.net. Objectively speaking, both of these networks are successful within their communities for each have around 50,000 users, consistent growth, and constant updating of their software, likely because they are well-known and integrated within existing social movements directly related to both the collective individuation present in the streets and on the web. Lorea is the preferred collective social networking platform of the Indignados in Spain and Crabgrass has a long-standing relationship with various anarchist movements in the United States, Germany, and Brazil. This is not to say any social networking platform created by grassroots political activists is pre-destined for success; far from it, for the much-hyped platform planned to be built by the #occupy movement, the Federated General Assembly, still remains a draft plan rather than a working codebase with actual users. The reason for the success of platforms like Lorea and Crabgrass is straightforward: what atomistic digital social networks like Facebook and Twitter lack are precisely the tools necessary for the coordination and production of data, such as the collaborative editing of files and task organization that is provided by the 'groupware' of these platforms. While the term 'groupware' is usually associated with business software such as the IBM Lotusphere, for the most part these kinds of tools have been restricted to corporate users willing to pay a hefty price tag, and their functionality has been restricted to only corporate use-cases. What we see happening now is the movement of groupware into the hands of the self-organization of citizens. Furthermore, neither of these networks is particularly decentralized in practice: Lorea is decentralized, but almost all activity is on a single node, and due to security concerns Crabgrass has yet to implement any features including federation. In this regard, what is clearly important for users is not decentralization, but the presence of features that enable collective individuation.

Currently these activist social networking platforms have barely scratched the surface of the tools required for collective individuation. On Crabgrass and Lorea, the most popular tool is the collaborative editing of wikis, but tightly restricted to small activist groups

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24. See, https://lorea.org/.
25. See, https://we.riseup.net/.

whose privacy is protected from possible surveillance by the alternative social networking platform. Yet what is necessary are even more sorts of tools for coordination across a wider range of latency and media, ranging from the real-time chat of Eetherpad to collaborative editing and annotation of video. Indeed, what a genuine alternative to atomized social networking would produce would be the cultivation not just of the collective production of information, but a space for reflection and knowledge of all kinds across all possible types of data. Thus we find that these collective platforms could indeed be the heart of the Semantic Web of Berners-Lee: they should feature the ability to store, refine, and share data, using open and flexible formats such as RDF that can then be easily interpreted by projecting such data onto maps and other kinds of visualizations. Moving beyond the simplistic vision of the web as a universal space where all data can be easily accessed by any user, a platform for collective individuation allows only those involved in the creation of data and knowledge to have command over the data via access control, so that they can release it to the wider world when ready. Just as current social networking platforms have, as their primary *raison d'etre*, the harvesting of data about their users for marketing, a genuine alternative would allow users to create manifold types of data about their world to increase their own collective presence in it, a vast multiplicity of open-ended relations that ultimately are not connections between atoms, but different ways of being and dwelling in data, the re-establishment of a new *Da* in the *Dasein* of the internet era.

In this vein, those involved in the collective individuation process must be able to reveal themselves in a manner they see fit, with the capability of exposing themselves using different personae or even remaining anonymous rather than always being tied to a single identity. One can imagine that some would rather reveal themselves via pseudonyms or be anonymous, or even only operate in collectives that are entirely anonymous. Current digital social networks exist primarily as marketing machines for which (dis)individuation is a mere side effect, where what appears to be private is always accessible to those that run the server. Thus in order to open the space for collective individuation, even the system administrators that run the server should not be able to access the data of the collective groups on it. This should be possible using public-key technology and encryption on the server-side, which would prevent those that run the server from spying on its users. Indeed, for security reasons, decentralization does make sense, if done properly, along with storing data in a decentralized and redundant fashion across multiple servers in order to minimize the consequences of attacks and the destruction of the collectively produced data.

Conclusion: A Social Web to Come

We are not against the mathematics of graphs, but against the *Weltbild* of the network, a particular image of the totality of our world that constrains and shapes our potentialities.[26] Like the image of the world as a clock or a computer before it, this particular image is far from innocent, but reflects the ontological assumptions of our social and economic order: it is no accident that Adam Smith and classical economists viewed exchanges – a kind of link! – as always happening between individuals. We have pointed out again and again that the theory of the network has little to do with

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26. Yuk Hui, 'Computational Turn or a New Weltbild?', *Junctures: The Journal for Thematic Dialogue* 13 Unseen (2010): 41-51. Available at, http://www.junctures.org/index.php/junctures/article/ view/6/4.

digitality per se, as Saint-Simon's failed imaginary socialism desired to build a world of networks far before the advent of the internet. Digital social networks, combining the mathematical theory of the social graph with the real-world artifact of globe-spanning digital communication networks, represent an industrialization of social relationships that transforms the rich possibilities pointed to by the elusive adjective of 'the social' to a totally atomic individualism, with connections to a world reduced to mere links. Far from being a neutral scientific methodology, the presuppositions of social networking today mediate our real communication.

Collective individuation proposes that another social network is not only possible but necessary for an economy that is far more than marketing, click rate, number of users, and the like. A collective social networking is possible, and is one based on the revealing of ourselves and our being-in-the-world-with-others, the 'group' based around a common project or calling. A project is also a projection, that is, the anticipation of a common future of the collective individuation of groups. By tying groups to projects, we hold to the fact that individuation is also always a temporal and existential process, rather than merely social and psychological. By projecting a common will to a project, it is the project itself that produces a co-individuation of groups and individuals. Furthermore, by creating a new technical substrate influenced by open standards that are based on this conception of groups, different alternatives can exchange and make elements of their social networks communicable in terms of protocols, data portability, and especially conceptualizations. So while we criticize the limits of social networks and researchers who embrace sociometry as some royal road to understanding social computing, we also want to outline that a new method for understanding – and even programming! – the social and digital is possible, and urgent.

Let us end with a few surprising words in defense of social networking.

Across the globe, we are increasingly both fascinated and enmeshed in a new *Weltbild*, the global social network. Perhaps social networking performs a similar function to that of the novel in the now bygone era of early capitalism as analyzed by Lukács in the *Theory of the Novel*: as the individual was uprooted out of their previously stable pastoral world and pushed into the city, the narrative of the bourgeoisie novel provided a crucial representation that served as a testament to the damage caused by the advent of capitalism and gave means to symbolically obtain a new holistic understanding in the overwhelming new world of the metropolis.[27] Now, in the era of late capitalism, our social life is uprooted beyond a particular city and nation, and due to rising unemployment the importance of a 'job' (the factory, the workplace, the office) declines; so is it any surprise that in the image of Facebook we can glimpse a way of understanding our now global-spanning networks of relationships and make sense of the 'timeline' of our lives? Does not the general obsession with 'friends' reveal the loneliness of this global world, yet also reveal our human desire for genuine friendship? Is it not self-evident that the libidinal investment in profiles serves a merely all-too-accurate reflection of the difficulty of maintaining our sense of identity in a world adrift from any tradition and sense of place? Despite its faulty ontology of nodes and links, within the image of the global social network there is a picture of the possibility of a unified world, much more

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27. Georg Lukács, *Theory of the Novel,* trans. A. Bostock, Cambridge, MA: MIT Press, 1974 (1916).

so than the image of the globe as distinct nation states, each with their own peculiar color and rigid boundaries that are to never mix. There is an unredeemed promise in Moreno today, visualized by the image of the world-spanning social network, namely the possibility of constructing a truly global conception of friendship and connection. It is still unknown what image comes after the *Weltbild* of the global social network, but we can only hope it is the abolition of all such images. An image is always a testament to our alienation and failure to grasp that which is really already there. There will be no image of the world when we have cultivated our cognitive powers to let us take responsibility for our common world. There will only be the world itself.

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POLITICAL ECONOMY AND MONOPOLY ABSTRACTIONS: WHAT SOCIAL MEDIA DEMAND

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KORINNA PATELIS

MEDIA   SOCIAL   WEB
OTHER   SOFTWARE   USER
SERVICES   CONTENT   FACEBOOK
PERSONALIZATION   INTERFACE
PRODUCTION   PROCESS

Our goal is not to build a platform. It's to be across all of them.
– Mark Zuckerberg[1]

The past decade has seen a staggering increase in the use of online services known as 'social media', a term coined to describe that these services 'enable' social interaction amongst users. Social media forms the core of the web in terms of use by westerners. Like most media in Western democracies, social media are private companies. Their successful operation in the last half-decade has formed an oligopoly market, with Facebook leading the way. This means that for many, particularly new internet users, social media are 'the internet', and for many of these, Facebook *is* social media.

The commercial nature, as well as the oligopoly structure of the social media market, is to an extent the unfortunate consequence of the way capitalist democracies have designed their media. In having been developed by corporate capitalism, social media have a congenitally double nature: on the one hand they are the loci of fulfillment of communications that are central to the functioning of democracy, indeed, for society as a whole; while on the other hand, they must realize profits. In the words of Zuckerberg himself in the Initial Public Offering (IPO) letter to Facebook investors in 2012: 'Facebook was not originally created to be a company. It was built to accomplish a social mission – to make the world more open and connected'.[2]

This is the paradoxical nature of the function of media in liberal Western democracies.[3] In other words, as is the case with traditional media, so too social media on the web have not been developed to carry out certain functions for society. No one devised them in order to have a social role, but rather, they have developed within the scope of a globally deregulated field of communications and they are commercial media by design. The dramatic irony of this design is that social media are supposed to

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1. Stated by Mark Zuckerberg on the *Charlie Rose* television show in November of 2011. Transcribed excerpts available at, http://www.businessweek.com/magazine/charlie-rose-talks-to-mark-zuckerberg-and-sheryl-sandberg-11102011.html.
2. David A. Ebersman, 'Letter from Mark Zuckerberg', in 'Facebook, Inc Registration Statement on Form S-1', Securities and Exchange Commission, 1 February 2012, p. 67, http://www.sec.gov/Archives/edgar/data/1326801/000119312512034517/d287954ds1.htm.
3. For a classic exploration of this paradox see, Michael Schudson, *The Power of News*, Cambridge, MA: Harvard University Press, 1995.

remain free from state intervention, but this makes them vulnerable to financial power. In other words, commercial media in a deregulated arena are bound to produce monopolies like Facebook. This is how capitalism works.

Facing the tale of monopoly software such as Facebook, this article narrates a different story full of paradoxes central to the way capitalism works. It tells the story of capitalist software, focusing on the plots and heroes of such software with the antinomies of capitalism from a somewhat different perspective than customary in critical approaches. This storytelling is polemic – in the sense that it aims to trigger disputes concerning the monopoly nature of new media, and their relationship to user culture. In other words, the interesting story told by social media is the one you, me, and billions of other people stare at day after day on our screens, and how this relates to capitalism. So I focus on the mundane, the less attractive pole of the contradictions of the World Wide Web, where daily, one comes across ever-increasing commercialization, structuration, and monopolization. The popular, mass side of this media, is needed to understand, in-depth, the role of social media in its making. Social media are drivers in key industrial processes: the process of transforming communications into a fragmented, commercialized pool of personal data. When this process comes to an end, in a couple of years, it will have structurally transformed commercial media forever. This is because commercial media will no longer be funded by advertising, but will be funded through commercialized private data. Instead of providing audience views to advertisers in exchange for money, social media can now sell the actual personal data of such viewers directly to the companies in question.[4] I don't mean to imply that an analysis of the internet must always revolve around its political economy. Rather, what is of interest here is to further conceptualize the mass element of the internet.

Social Media as Social Text
Interest in social media is methodologically somewhat undefined, particularly at a time were 'affect' seems to saturate the academy. In new media journals, the 'text' as an analytical category is almost nonexistent having faced multiple methodological challenges, the most obvious of which is the idea of the 'active user' and of interactivity being automatically attributed to the use of new media. Unlike approaches that centre on the 'affect' of new media, my attention here is towards software and the interface it produces as a basic axis for understanding representational structures on the web. This focus on software is an element that we adopt from so-called 'software studies', which among other things considers software to be central in understanding the 'language of new media'.[5]

Moreover, software simultaneously constitutes[6] both a social text as well as a consumed product. Thus, the interface and the software are cultural texts, i.e. a systematically organized set of discourses, and simultaneously consumer products whose

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4.   For a look at companies that provide this service see, http://www.audiencetargeting.com/.
5.   Lev Manovich, *The Language of New Media*, Cambridge, MA: MIT Press, 2001.
6.   See, for example, Lev Manovich, *The Language of New Media*; Lev Manovich, *Software Takes Command*, Cambridge, MA: MIT Press, forthcoming, http://lab.softwarestudies.com/2008/11/softbook.html; Matthew Fuller, *Media Ecologies: Materialist Energies in Art and Technoculture*, Cambridge, MA: MIT Press, 2005; and Matthew Fuller (ed.) *Software Studies: A Lexicon*, Cambridge, MA: MIT Press, 2008.

conditions of production and distribution are important.[7] This means that Facebook software cannot be anything other than partial, cannot have been developed other than on the basis of specific values and with the aim of specified interaction. Facebook software, therefore, constitutes a field of political choice, not of 'transparency'.

Because I do political economy what is of interest to me here is not any field of political choice, but those that aspire to commercial power.[8] Consequently, I recast the political economy of media and its synthesis with cultural studies with the aim of conceptualizing software. Synthesizing these two approaches, I understand the web experience as uniform, the infrastructure and the content as one, and the material and culture as unified. Moreover, I impose upon us the recognition that the 'interface' is an important part of the content. The interface is, therefore, understood as a uniform cultural text, which cannot be distinguished from any personal web page on which any given analysis happens to focus. This is why in this article there are no separate discussions of social media industrial powers, coding practices, and the cultural texts that are distributed worldwide, as together they form a behemoth power structure. So the Facebook interface is a non-neutral entity, as a cultural text that aspires to power and that frames specific forms of interaction consumed by millions of users on a daily basis.

Reading software starts with underlining that such software is produced on a monopoly basis for profit, it is 'blockbuster software'. Its representational structures and the scripts in which it involves its users represent a central void of governance, given that software is distributed globally on an oligopoly basis. In other words, the representational power on the web is in the hands of a few companies, monopolies that strive for profit. Microsoft monopolizes the consumer software market, with a significant presence in the social media market. Google monopolizes the 'search' market and the user content production market (i.e. YouTube and Blogger), while the content production tool market is increasingly monopolized by Adobe.[9]

From Universality to Colonization
According to the hegemonic discourse coming from the mouths of monopoly companies and new media theory amongst others, the above-described void in governance does not necessarily mean that the actual software embeds values. Such discourses soak arguments in computer design and now software design and their commercial operation. Jay David Bolter and Diane Gromala[10] develop arguments against the es-

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7. The textual analysis proposed here adopts most of Hall's analysis. See, Stuart Hall, 'Encoding/decoding', in Stuart Hall et al. (ed.) *Culture, Media, Language: Working Papers in Cultural Studies*, London: Hutchinson, 1991, pp. 128-138.
8. For a solid argument for a political economy analysis with regard to new media see the early writings of Robert McChesney, such as 'So Much for the Magic of Technology and the Free Market', in Andrew Herman and Thomas Swiss (eds) *The World Wide Web and Contemporary Cultural Theory*, New York: Routledge, 2000, pp. 10-47.
9. Microsoft's revenue for the first half of 2012 was $35.47 billion (see http://www.microsoft.com/investor/EarningsAndFinancials/Earnings/PressReleaseAndWebcast/FY12/Q4/default.aspx); Google's revenue for the same period was $22.86 billion (see http://investor.google.com/earnings.html); Facebook's revenue was $2.24 billion (see http://investor.fb.com/results.cfm); and Adobe's was $2.17 billion (see http://www.adobe.com/aboutadobe/invrelations/pdfs/ADBE_10Q_Q212_FINAL_Certified.pdf).
10. Jay David Bolter and Diane Gromala, *Windows and Mirrors Interaction Design, Digital Art, and the Myth of Transparency*, Cambridge, MA: MIT Press, 2003.

tablished view in computer design according to which computers must be designed to be invisible, sailing along with the user, offering a substantively neutral and transparent interface, and simply distributing content. According to Bolter and Gromala, this politically non-viable position established in the design of computers, as well as so-called 'intelligent' devices, has the result that operating systems and computers in general are developed within a paradigm that aims to evolve them into neutral extensions of the human body itself, wherefrom one gets popular terms such as ubiquitous computing.

Bolter and Gromala dispute the ideological basis of the paradigm and develop the argument that this is neither possible nor it is politically sanctionable given that there is no consensus as to which are the human perceptual functions with which computers ought to potentially/virtually 'sail along'. They ask themselves how have we politically consented to the idea of compliance and not, for example, the idea of awakening. In other words, for Bolter and Gromala computers cannot be 'transparent' but on the contrary they constitute fields of interaction and of targeted acts.

The companies producing such texts exploit and establish the design paradigm described by Bolter and Gromala in commercial web software services. For some time they have been stirring the pot of transparency ideologies: it is 'where do you want to go today' not 'where are we taking you today?', or 'we classify knowledge for you'. From processing the social, the partial archiving of pages to hosting free speech on default menus, each corporation presents fragmentary or muddled processes as transparent. In the words of Facebook's Terms of Use, 'Facebook is not a website, it's a way of sharing your information; it's designed for easily sharing your information with anyone'.[11]

By presenting their functions as technical, or uniform and impartial, these companies deny the blatant monopoly they enjoy and consequently the powers of this monopoly. Like computer designers they proclaim, on the one hand, that their services are designed on the basis of a global knowledge about the 'structure of perception' and, on the other, that the constant development of services by the users guarantees this uniformity. Microsoft's well-known dictum concerning usability is a good example of this logic. In other cases, such as that of Google, the oligopoly is justified simply by supporting the view that the service provided offers purely technical facilitation, and therefore there is no need for competition. Constant references to supposedly global user contributions to the published content again imply that since intermediation on the mass web reaches for and is based on free collective offerings, there is no need for competition. As we only need one Wikipedia, so too we need one and only one YouTube!

From Universality to Monopolization

This discourse is easy to rebut once one looks at the actual representation of the social media interfaces. There are two values that keep on popping up, values that are interrelated and form the cultural practices we are invited to participate in. The first is universality, and of course the aspiration to hegemony that goes with it. The second is 'real identity', 'social identity', and the idea that natural/corporal identity should form the cornerstone of our online identities. The virtual is no longer understood as some-

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11. Found in Facebook's Terms of Use as stated in October 2009, http://www.facebook.com/legal/terms.

thing more than an extension of real social life. Actually, one could say that virtual identity and anonymity are stigmatized through these texts. Role-playing, the virtual as distinct and different from the real, is understood as 'fake'. The same applies to services that are not aiming to provide texts for some imaginary universal real self, as anchored in this materiality. In Zuckerberg's words, '"The Web is at an important turning point today." Startups require their users to bring their real identity. "The default is now social"'.[12]

These two ideas work together and feed a dual cultural practice that enables the commercialization of personal data[13] and the transformation of commercial media into a commercial sea of data. Very much embedded in oligopoly social media texts is the idea that a web service aspires to universality, it wants to monopolize our time online and colonize the web. Staring at the Facebook login page one quickly reads such an aspiration: the page is not designed to 'give away' the services or content but rather, is a gateway towards something, more like a book cover, an entry point to a network.

Its strength is further played out by the importance of natural identity for entering this space. The user's unique identity is key to the network, because unlike any other landing page, the Facebook landing page displays the sign up template featuring seven details of the private self, including date of birth, to its nearly billion subscribed users every time they want to log on, instead of it being displayed only to users who click a link to sign up.

Although trivial, both these observations are often made by internet natives who used the internet for at least a decade without having to join any other network, as they are already on the network, and who for years didn't have to trade their personal details for such use.

Structures of Mediation

When companies know more about you, you won't have to look at advertising for things that don't interest you. And the companies will know that the right people are seeing the things they sell. ...Your computer will tell the companies about what you're interested in buying. Or what you're interested in hearing.
– Bill Gates[14]

The strategy for colonizing the web has to a large extent been successful. Oligopoly social media services as well as Google's indexing services now constitute a uniform interface, the cultural text at the heart of the web. It is as familiar to us as a Hollywood

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12. Spoken by Zuckerberg during his keynote at the F8 Conference on 21 April 2010 at 10:45 am. Recorded on a live blog by Frederic Lardinois, 'Live Blog: Mark Zuckerberg's F8 Keynote', *ReadWrite*, 21 April 2010, http://readwrite.com/2010/04/21/live_blog_mark_zuckerbergs_f8_keynote.
13. To situate this argument in the discussion of privacy see, Helen Nissenbaum, *Privacy in Context: Technology, Policy, and the Integrity of Social Life*, Palo Alto, CA: Stanford University Press, 2009; and Michael Zimmer, 'The Externalities of Search 2.0: The Emerging Privacy Threats when the Drive for the Perfect Search Engine meets Web 2.0', *First Monday* 13.3 (2008), http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2136/1944.
14. Bill Gates, *The Road Ahead*, London: Penguin Books, 1996, p. 19.

movie, so much so that many of us identify it with the web itself: we refer to our daily structured network experience through Windows, augmented by Explorer, scanned by Google, and enriched by Facebook. Through navigation menus and selection boxes, progress bars, search tools and electronic commerce, the web's interface narrates back to us, offering us the unique opportunity to become ourselves the heroes of its stories. The web's interface reflects values across the entire spectrum of the design and functioning of its services. The industrialized mediation it offers standardizes content, on the one hand, through the intense claim for personalization and, on the other, requiring the collection and scanning of increasingly more personal experience and content within the framework of a broader false collectivity. This double axis constitutes the heart of content industrialization on the web and was developed by social media. With this double aim, the common characteristics in products and services offered are firstly the unique sense of control produced through personalization, and secondly, the demand for further production or processing of personal content as part of a collective community of producers. The alibi presented by personalization conceals that in reality one is dealing with a commodification process, during which, slowly but steadily commerce and communication are integrated until they become homogeneous. Through the global interface this commercialization seeks to grasp increasingly more aspects of social life and increasingly more content, all produced by the users themselves.

The development of social media was the nodal point for the role of personalization in the broader standardization process of communication on the web, mainly because it established the demand for user participation in the production process of standardized collective content. It was also important because it naturalized the commodification of personal data. Personalization is part of communication in social media to such a degree that the personalization (and hence standardization) process itself constitutes the product. Thus, what is about to be individualized is less important than the fact that it will be archived and 'processed', and that personal data will be produced via this process.

One Script, Many Stories

Our online screen is made up of software and services that have the end goal of integrating commercial transactions with commercialized communication and the offering of individualized products combining both. The similarity in the abstractions forming the interfaces of various different social media texts and other types of services, is striking. On the user's screen all services seem to have been designed in coordination, as if every object were designed to coexist with every other object, telling us the same story. Applications, although vastly different and developed even for different access platforms, comprise a fixed framework within which our local web experience is articulated. The representational foundations of this fixed framework were initially put in place by the original Windows graphic operating system and have been extended and re-shaped by social media. At the epicenter of the Windows cultural text is a graphical interface in which content and information are represented as objects, and all actions of the putatively dominant user are represented as power over these objects. Space is represented as three-dimensional and the user as dominant through the oversimplification of the represented virtual world.

Oversimplification constitutes a basic characteristic of the text, and so actions such as writing, the opening of files, web browsing, file reading, adding, and listening are all homogenized and represented as similar. In the name of a 'universal functionality' and

the 'average' user (who appears as anything but competent!) everything is oversimplified with the result that the user/hero's power over the three-dimensional world of information seemingly increases. The user's movement in three-dimensional space is conceived of as the 'control' of objects, control that is of information which through ever-increasing commands is located at the epicenter of the interface and symbolizes the user's freedom. The personal pronoun 'my' represents the user's power, the epitome of which is the possibility of personalization and the replacement of 'my' by the user's real name. Looking at Facebook's timeline one can easily read these values, but one can also read the demand for extending these towards everything, the demand for galloping up even more social, virtual and real space. Social media extend and augment these very basic representations to online life, promising even greater freedom, the freedom of managing information inside infinite cyberspace. Encoded within the products and services offered for mass consumption is a combination of graphical environment that simplifies services with the control of information in an amorphous sea of informations.

Space is re-intermediated through the effort to control three-dimensional objects and time through the ability to extend the script and control a greater number of objects. This extension of control to commerce is naturalized and conceived of as an extension of our narrative freedom. Thus, the freedom that is represented by the user's ability to move in virtual space in order to control objects is proposed to the user's ability to buy these objects. Communication on the web can now include product consumption and is represented as the experience for which further processing and 'object' production is central.

Social media texts offer infinite extensions of the same script: freedom of access to ever-increasing ways of processing and controlling information, such as tagging, adding to a list, storing, retrieving, and any other contribution to so-called 'populocracy' and collective production of content. According to the script, the interface offers an ever-increasing ability for personalization and control, on the one hand, and on the other, ever-increasing capabilities for contributing to and accessing the 'collective'. The central narrative axis of the ever-increasing demand for more information is comprised by two skewed sides of the same coin: personalization and collectivity. The rapid development of social media overwrites and clarifies this side of the mass produced text. Through an illusion of personal control we, the users, incrementally produce new episodes of the script in an attempt to participate in a commercialized social process.

In other words, at the center of the web, not only is one required to collect, store, process and sort objects and experiences that used to be kept apart, but also to co-opt others in a collective production process. Through the process of personalizing communication, represented by a myriad of selection boxes and commands, embedded in the text is the story of a unique hero who authors his or her plot. The personalized web experience involves the production of ever more information, classifying it, dissecting it, and more than anything else offering it to the collective effort of object hierarchization for the common good. In other words, the script's hero is the unique user, and the plot is comprised of the very ability to control information and the production of further control, and therefore of further versions of the same script. With social media we are called upon to produce new episodes of the same script,

ourselves thus approaching the zenith of control. A classic example of such a script is the development of the Facebook app 'How Well Do You Know Me?', in which the user personalizes the app called 'How Well My Friends Know Me'[15] and then invites friends to consume it. The personalization of the application on the part of the user is equivalent to one more episode of the same script.

But the apotheosis of this is the timeline itself, were the user can narrate the story of her/his life with pre-customized and customizable extendable boxes that allow him to tell her/his story in a linear fashion. In other words, the monopoly social media interface is central to the representation of the standardization process as a personalization process. In social media the personalization process, henceforth, constitutes the product itself, as if what is personalized is less important than how it is personalized. New species of information production for information's sake, new ways of commenting, the adding of tags, processing the personal, and manners of classification are continuously added, requiring the user to specify his or her presence more and more. In social media personalization is so central to the product offered that the product has stopped being commodified, and that is true not only because the user is also involved in the production but because each product literally appears to be different from any other product, having seemingly at least resisted the homogenization of standardization.

The more the demand for the production of ever more content intensifies, the more the content becomes increasingly personalized and fractionated, extending farther into parts of social life and action, and therefore the intermediating power of social media increases. The standardized services that constitute the product gradually become indistinguishable from the manner in which the user is represented. For example, tagging friends' posts has become synonymous with communicating with one's friends. Thus, today for example, the majority of services on the global interface presuppose the standardization of self-representation, with the requirement that users distribute their identity in little boxes that are available when setting up a page. The use of the interface presupposes personalization, otherwise the user is simply not permitted to navigate the mass center of the web.

Finally, social media not only commercialize social interaction and user-produced content but also define which aspects of social contact, self, and experience, will be commercialized. On Facebook, for example, the personalization process described here becomes available for the conceptual interconnection of the 'normal' and 'digital' lives of users. In this manner, personalization, production, and storage of knowledge and social experience gradually become part of life in the net. The constant revelation of further standardized details of private life is part of the representation, just as the visualization of the extra-web real self becomes enmeshed in this representation.

These programs and services comprise the heart of the commercial web. The development of social media has established the demand for control, archiving, and the collective production of content, situated at the heart of the script.

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15. See, http://apps.facebook.com/quizdoyouknowme/.

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**RHETORICS OF SHARING:
DATA, IMAGINATION,
AND DESIRE**

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JENNY KENNEDY

SHARING   SOCIAL   FACEBOOK
MEDIA   SHARE   PLATFORMS
DATA   BLOG   TERM
POLITICAL   DIGITAL   CULTURAL
WORLD   RHETORIC   CONTENT

Whether across the world or across the street, Twitter – and more broadly, technology – allows people to view the world through each other's eyes. As a result, we are able to share information and communicate more easily than any time in our past, bringing the world closer.
– Abdur Chowdhury[1]

If you like something it is automatically shared with all your friends to say "this person liked this you should like it as well" so they are definitely like, directing you in which ways to share stuff... So I think like, I do "like" this but do I "like" it enough to tell the whole world that I "like" it because when people look at it they going to think "oh she must love this brand" because she has "liked" it on Facebook whereas I might not actually like it that much.
– Esel[2]

We get all the culture; they get all the revenue.
– McKenzie Wark[3]

On 31 October 2006 Chris Hughes, then project manager for the newly developed share functionality of Facebook, wrote in one of the first entries on the public blog:

> Starting today, there are links to share on Facebook planted all across the Internet, from the articles at Time to the videos at Photobucket. Look for links like this all over the Web, making it easy for you to share.[4]

Hughes, a founding member of Facebook, and known as 'the empath' in Facebook circles for his intuition of users rather than code, saw the social network as an opportunity to help people share information most efficiently.[5] The timing of his announcement

1. Abdur Chowdhury, 'Global Pulse', Twitter weblog, 29 June 2011, http://blog.twitter.com/2011/06/global-pulse.html.
2. Esel, interview transcript, 2012. Esel is a pseudonym.
3. McKenzie Wark, 'Considerations of a Hacker Manifesto', in Trebor Scholz (ed.) *Digital Labour: The Internet as Playground and Factory,* New York and London: Routledge, 2012.
4. Chris Hughes, 'Share is Everywhere', The Facebook Blog, 31 October 2006, http://blog.facebook.com/blog.php?post=2215537130.
5. Ellen McGirt, 'How Chris Hughes Helped Launch Facebook and the Barack Obama Campaign', Fast Company, 1 April 2009, http://www.fastcompany.com/1207594/how-chris-hughes-helped-launch-facebook-and-barack-obama-campaign.

is significant: share buttons would from then on proliferate in online content and apps. While it was a watershed moment, the spreading of share rhetoric in social media platforms had been building for some years and Hughes' post in 2006 was in the midst of the adoption period of this terminology.[6]

More significant than the timing of this rhetorical development, is the *framing* of the sharing rhetoric. Hughes' only other Facebook blog post (he would leave Facebook in January 2007 to take on the online organization of supporters for Barack Obama's presidential campaign) is a pun on the maxim 'sharing is caring'. He draws on social sensibilities of goodwill by evoking the imagined memory of a school teacher's lesson when he comments 'as a mark of due respect to all the kindergarten teachers of the world, go forth and share' while emphasizing the boldness (and newness) of it all in the provocation of a dare through the post's heading 'Sharing is Daring'.[7]

In digital contexts the use of the term sharing is strategic; it has social, economic, cultural, and political resonance. Cultural intermediaries, especially social media platforms, are able to utilize this semantic richness to construct a rhetoric of sharing based upon their own specific agendas. Sharing is never employed neutrally. Furthermore, the semantic richness of the term often belies tensions of competing rhetorics of sharing in digital contexts.

In the second opening quotation of this text, Esel, a social media user, highlights the complex, subjective labor of sharing.[8] There is a stark contradiction between Esel's statement where she identifies possible interpretations of her sharing practices and the hyperbolic statement from the Twitter blog in which sharing brings 'the world closer' and makes communication 'easy'.

The Imaginary of Sharing
Manuel Castells states: 'In our society, the protocols of communication are not based on the sharing of culture, but on the *culture of sharing*'.[9] Sharing is a regular exhortation in the social web. The mobilization of this term is not accidental or ingenuous but is strategically harnessed and massaged by cultural intermediaries such as social media platforms. Most, if not all, social media platforms feature the function to 'share'. These functions of sharing are discursively framed as practices of socializing, networking, or navigating.

Social media platforms are central players in the framing of sharing. Though they are not the only cultural intermediaries to construct and mobilize a cultural imagining of sharing,

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6. Nicholas John, 'Sharing and Web 2.0: The Emergence of a Keyword', New Media Society (2012), http://nms.sagepub.com/content/early/2012/07/03/1461444812450684.

7. Chris Hughes, 'Sharing is Daring', The Facebook Blog, 27 October 2006, http://blog.facebook.com/blog.php?post=2214737130.

8. I tease out sharing as a complex media practice as part of my PhD work on selective sharing practices in networked spaces. I examine the development of sharing rhetoric in digital contexts as well as the perceptions and experiences of those engaging in sharing practices in networked spaces through multiple qualitative methods. Esel's quote is extracted from the transcript of one of the many interviews I conducted between 2011 and 2012.

9. Manuel Castells, *Communication Power*, Oxford: Oxford University Press, 2009, p. 126. Emphasis added.

much of the debate around the immaterial labor of sharing focuses on these entities which points to their centrality in the development and drive of sharing rhetoric.[10]

Sharing is not used innocently in echo of a childhood motto, it is carefully constructed. As a rhetorical strategy it is political. Social media platforms use the rhetoric of sharing to establish their function as facilitators of social engagement. Here are some typical assertions: 'Facebook helps you connect and share with the people in your life'.[11] 'Find out what's happening, right now, with the people and organizations you care about' says Twitter.[12] 'Share your life in photos' invites Flickr, 'Keep up with your friends and share your stories with comments & notes'.[13] YouTube, likewise, is situated as a facilitator of social relationships, offering through their iPhone app 'more ways to share with the people you love'.[14] Social media platforms employ the term sharing by using its association to predated activities, claiming to better enable such sharing by buying into existing vernacular yet paradoxically also masking the idea that it was ever possible to do any form of sharing before their existence.

Sharing rhetoric draws on a cultural image of connectivity. Social media platforms are not the only actors to use such imagining, mobile-based platforms do the same. Network providers, handset manufacturers, and social media platforms each promote social activities of togetherness enabled by their products which evidences a sustained cultural norm of sharing through teletechnologies for the purpose of affective connectivity.

Good Subjects Share

In 2010 Mark Zuckerberg further emphasized the framing of sharing as affective connectivity, stating in one of his own posts on *The Facebook Blog*:

> When we started Facebook, we built it around a few simple ideas. People want to share and stay connected with their friends and the people around them. When you have control over what you share, you want to share more. When you share more, the world becomes more open and connected.[15]

Continuing the framing established by Hughes, Zuckerberg structures sharing as positive, 'open' communication and 'connected' sociability. It is markedly similar to the Twitter statement which also exaggerates the role the platform plays in bringing people together. Social media platforms heavily utilize this 'open' and 'connected' structuring of meaning. The parlance of sharing is purposively harnessed as a way of initiating familiarization with the practices digital intermediaries afford – socializing with friends and loved ones, networking with others over shared concerns, and navigating stories from around the world.

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10. Trebor Scholz (ed.) *Digital Labour: The Internet as Playground and Factory*, New York and London: Routledge, 2012.
11. Facebook, www.facebook.com.
12. Twitter, www.twitter.com.
13. Flickr, www.flickr.com.
14. Andrey Doronichev, 'Introducing a New YouTube App for your iPhone and iPod Touch', YouTube weblog, 11 September 2012, http://youtube-global.blogspot.com.au/2012/09/introducing-new-youtube-app-for-your.html.
15. Mark Zuckerberg, 'Making Control Simple', The Facebook Blog, 27 May 2010, http://blog.facebook.com/blog.php?post=391922327130.

Public press would have us believe that anyone not willing to share their mundane day-to-day business on a prime social media platform is a heinous monster likely to commit mass homicide.[16] Using social media platforms is equated with being a valid member of society, such that newspaper journalist Catherine Bennett stated 'Facebook use is now considered so overwhelmingly the norm that employers are more likely than not to consider documented history of online poking, boasting and friending to be a comforting sign of socialisation and professionalism'.[17] These platforms operate as cultural intermediaries and, as such, are power structures able to construct digital subjects where being a good neoliberal subject means sharing through socialization, networking, and navigating. Good subjects post, update, like, tweet, retweet, and most importantly, *share*.

Social integration is equated with connecting and sharing, therefore 'quitting' a social media platform is likened to ending a relationship. The ability to communicate, to share with others, will be incomprehensibly lost if you leave – though your data remains intact should you choose to come back. The assumption being that your social integration relies on you being present on the platform. Another journalist for *The Guardian*, says that '"unfriending" someone on Facebook [...] feels like delivering a slap in the face (and not even a well-timed slap, since you can't be sure when they'll find out)'.[18] And tellingly, goes on to say 'Facebook itself hates unfriending, for commercial reasons, and thus makes it easy to hide updates from tiresome contacts without their knowing'.[19] The social media platform prefers you to share with as many others as possible. Greater connections mean wider sharing with further opportunities to generate *data*.

Data is gold. The data generated by sharing is part of what The World Economic Forum call an emerging 'asset class'.[20] Facebook claim they have 'never sold and will never sell user information',[21] because they don't have to. Why would they sell that data and the power that goes with moderating access to that data to another party? Facebook, Google, and their ilk's value comes in owning user data not in selling it. Being in the business of gathering data, a sound plan is to grow the breadth and scale of that data. Sharing is the engine of data.

So what is sharing? Yochai Benkler frames sharing as something that is done 'nicely'.[22] Charles Leadbetter states 'you are what you share'.[23] Sharing is being in common,

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16. Catherine Bennett, 'Not on Facebook? What Kind of Sad Sicko Are You?', *The Guardian*, 12 August 2012, http://www.guardian.co.uk/commentisfree/2012/aug/12/catherine-bennett-facebook-psycopaths.
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23. Charles Leadbeater, *We-Think: Mass innovation Not Mass Production: The Power of Mass Creativity*, London: Profile Books, 2008.

an economic function and a political behavior. The scope within definitions of shar-
ing for social, cultural, economical, and political application is, in part, what makes
the language of sharing so useful to these digital actors as a rhetorical strategy. As
a social facilitator they emphasize sharing for social 'good', as a cultural mediator
they emphasize being in common through sharing on their platforms. Their economic
stature is evidenced in their distinction of user-generated value through sharing met-
rics and their political stature in the attainment of user-generated economic power,
though the political and economic stature through user-generated value is deliber-
ately underplayed.

The Symbolic and the Strategic

Tim Berners-Lee said of the early internet: 'The dream behind the Web is of a com-
mon information space in which we communicate by sharing information'.[24] The in-
citement to share is as much a part of the discourse of the culture of the web as it is
a part of the infrastructure. Principles of Web 2.0 rhetoric are centered around partici-
patory practices such as information distribution, inter-operability between interfaces
and systems, and user-centered design which optimizes design choices around the
end user's perceived needs and desires. Essential to this rhetoric are attributes of
openness, freedom for users to participate, and collective intelligence.

Social media platforms explicitly and strategically position sharing within a culture
of participation, they position themselves as enabling this sharing for the purpose
of community development, engagement, and creativity. Tensions exist between the
statements of these sites and the expectations of the users. As curators of publicly
generated content, these providers also shape what content exists. They curate not
only content but the *discourses around that content*.

Social media platforms establish a particular discourse that frames their purpose
for being, their relationship with their users, and negotiates the tensions between
their relationship with their users and their customers or commercial parties. Within
YouTube, there are shared ways of doing, seeing, and being. Users upload their own
videos, view, and respond by commenting on others or producing new content that in
turn generates community and dialogue. YouTube has a complicated position as both
a distribution service for commercial entities and a community generator.

By establishing themselves as intermediaries these corporations downplay their eco-
nomic power and cloak their political momentum by capitalizing on the notion of be-
ing supportive entities, with the implication that they do not control the practices con-
tained within their sites. Mayo Fuster Morrell uses the term 'wikiwashing' to describe
such actions.[25] Wikiwashing is the appropriation of values associated with wikis –
collaboration, openness, non-profit. It is a systematic misrepresentation process that
seeks to afford the values of wikis to commercial enterprises. The Facebook home
screen when it was launched in 2004 (then called Thefacebook) featured the text 'A
Mark Zuckerburg Production Thefacebook © 2004', a clear identification of propri-

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24. Tim Berners-Lee and Mark Fischetti, *Weaving the Web: The Original Design and Ultimate Destiny
     of the World Wide Web by Its Inventor*, San Francisco: Harper, 1999.
25. Mayo Fuster Morell, 'The Unethics of Sharing: Wikiwashing', *International Review of Information
     Ethics* 15.9 (2011), http://www.i-r-i-e.net/inhalt/015/015-Morell.pdf.

etary control. As it stands today, the copyright line is simply 'Facebook © 2012'. The corporate identity and tool are collapsed under the same branding.

What is omitted or ignored in this framing? As previously stated, the term sharing is utilized within this collapsed facade to leverage semantics of neutrality. The use of such language focused towards users in direct appeal through information architecture and tag lines implies access and open neutrality through a benign host. However, many of these sites are funded by advertising and the sale of content traffic, as is the case with YouTube.[26] The precision of selective language is paramount in the negotiation of these complex relationships. In the same way that Tarleton Gillespie argues 'platform' is harnessed as a key term, so too is the term 'sharing':

> A term like "platform" does not drop from the sky, or emerge in some organic, unfettered way from public discussion. It is drawn from the available cultural vocabulary by stakeholders with specific aims, and carefully massaged so as to have particular resonance for particular audiences inside particular discourses.[27]

Replace the term 'platform' with 'sharing' and the argument is equally pertinent. Discursive positioning of online activity through tropes such as platform and sharing 'depends on terms and ideas that are specific enough to mean something, and vague enough to work across multiple venues for multiple audiences'.[28] This is why the word sharing is able to be utilized across different discourses, by distinct groups, each with particular agendas.

Sharing is a political construct. Sharing content raises questions about the 'ownership' of that content which points to the fact that while the internet may be built within a cohesive technological framework, there are distinct (political) divisions within sites between policies for users, providers, and data handlers. Social media platforms mediate between users and between advertisers and traffic. This makes social media platforms distinct from other social web platforms such as non-profit collaborative wikis and open source initiatives such as Linux. As Tarleton Gillespie argues, important political issues get rewritten as technocratic, whereby the political becomes invisible in light of the technological.[29] By emphasizing the social affordances of the platform (helping you to 'connect', 'keep up', and 'view the world through each other's eyes'), the politics of data handling, ownership, and monetization are hidden from view. Sharing is (after all) political.

Conflicting Sharing Rhetorics

Multiple, conflicting rhetorics of sharing resonate through network society culture. Jessica Litman positions sharing as a form of 'anarchic volunteerism' where 'untamed' sharing of digital information, files, and communication is more effective than

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26. Matthew Allen, 'Web 2.0: An Argument Against Convergence', *First Monday* 13.3 (2008), http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/2139/1946.

27. Tarleton Gillespie, 'The Politics of "Platforms"', *New Media Society* 12.3 (2010), p. 359.

28. Gillespie, 'The Politics of "Platforms"', p. 359.

29. Tarleton Gillespie, *Wired Shut: Copyright and the Shape of Digital Culture*, Cambridge, MA: MIT Press, 2007, pp. 82-83.

paid subscriptions or hard copy distribution.[30] In 'hive-minded' gift economies resources are exchanged through unspecified obligations with an expectation of satisfaction in participation.

There is a limit to the utility of this rhetoric of sharing. Sharing applies only to the distribution of specific objects. Litman says: 'Collecting information on the Internet is "learning". Posting information on the net is "sharing". Try exactly the same thing with recorded music and it is "stealing"'.[31] The 'sharing' is troubled by the statement of 'property' upon which intense debates persist. To some sharing is a litigious term synonymous with 'stealing', to others it is its imprecise and inappropriate association to tangibility that is the issue.

Sharing, stealing, copying. Each term conveys a specific set of principles and values, yet stealing and copying are critical points of departure from sharing. The practices they describe are essentially the redistribution of material or immaterial objects and rights to exclusivity. Sharing and stealing of material objects imply reductive qualities in redistribution. Exclusivity is diminished in distribution and limited by the minimum unit of division. Copying of material objects has implications of scale. Exclusivity is also diminished in distribution, though the nature of the copy means that the exclusivity of the original remains intact. Sharing, stealing, and copying each have implications of scale for immaterial objects. Exclusivity is potentially irrelevant, the original risks becoming obsolete. Sharing, stealing, and copying are distinguishable by the terms and ownership of control over the scale and exclusiveness of distribution. Sharing is a relinquishing of control, which may be partial. Stealing is a forceful shift in ownership of control. Copying is a giving up of control of distribution where ownership of the original remains intact, though the original may no longer be identifiable or worthy of distinction.

In discussions on peer-to-peer file sharing, Matthew David argues that through the synonymity of sharing, copying, and stealing, the act of sharing has been criminalized.[32] Scarcity is threatened by sharing, and so modes of frictionless distribution are framed as unlawful and criminal to protect those whose interests are best served by scarcity regardless of whether or not the threat is justified. Networked devices and individuals problematize the notion of scarcity where it refers to digital or informational goods. The distributed systems of file sharing distance the software provider from user interactions and infringed or digitally managed files. Property, rights, and ownership discourses challenge the monopoly of media conglomerations and so the acts of providing, uploading, or downloading controlled media files or even providing the software or service infrastructure for these acts are framed as criminal acts. The networking of these systems of distribution, themselves increasingly distributed so that a particular entity is not identifiable or connectable to a particular act or file is partly in response to this criminalization discourse. The criminalization of peer-to-peer sharing can be read then as a criminalization of culture.[33]

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30. Jessica Litman, 'Sharing and Stealing', *Hastings Communications and Entertainment Law Journal* 27 (2004): 4.
31. Litman, 'Sharing and Stealing', p. 23.
32. Matthew David, *Peer to Peer and the Music Industry: The Criminalization of Sharing*, London: Sage Publications Limited, 2010.
33. Matthew, *Peer to Peer and the Music Industry*, p. 9.

Furthermore, peer-to-peer advocate groups attempt to push back against the criminalization of culture by reclaiming the rhetoric of sharing, through their 'sharing is caring' slogans. In much the same way that social media platforms have an interest in framing specific practices as sharing, so too do peer-to-peer and file sharing advocates. By emphasizing the ubiquity of these practices and situating them within the continuum of user-generated content they reframe file sharing practices as normative rather than illegal behavior, implying that the legal system which seeks to limit them is out of date rather than the practices which are out of line. Such a social framing of sharing was successfully leveraged recently in a copyright infringement case in Portugal when a judge declared file sharing for personal use to be legal.[34]

Creative Commons also purports to popularize sharing. A formalization of social practice, Creative Commons shows the limits of territorial and philosophical presuppositions and the ephemerality of property rights. John Palfrey and Urs Gasser argue that the 'norms of sharing' are immersed in creative modes of interaction and production which includes illegal downloading and viewing that threaten the legalities of ownership and copyright and counterposes creativity with copyright law.[35] There is ambivalence between users as to what constitutes creative use and what amounts to copyright infringement.

These latter examples demonstrate that practices of semantic leveraging are key within digital contexts, that it is not just social media platforms and cultural intermediaries that do this work.

Raising Consciousness to Rhetorical Constructions

The ubiquity and everydayness of the term sharing belies the diverse and complex social, cultural, economic, and political processes it is employed to describe. There are popular and critical contexts for the term's use in teletechnology and internet rhetoric. The ambiguity around the term sharing hides tensions between competing expectations. Social media platforms, in particular, utilize these discourses of sharing to obscure a proprietary control of data and labor such that sharing is used as a rhetorical neutralizer between those that generate data in providing content to social media platforms (users), those that 'own' such data (platforms), and those that access and make use of it (advertisers and data handlers).

'Sharing' on social media platforms may pay lip service to the sharing learned as kindergarten children but the private monetization of data behind closed doors marks a stark contradiction. The hyperbolic rhetoric of sharing demands rigorous examination to understand what is prioritized and what is omitted, effaced, or ignored.

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34. Ernesto, 'File-Sharing for Personal Use Declared Legal in Portugal', TorrentFreak, 27 September 2012, http://torrentfreak.com/file-sharing-for-personal-use-declared-legal-in-portugal-120927/.
35. John Palfrey and Urs Gasser, *Born Digital: Understanding the First Generation of Digital Natives*, Phoenix, Arizona: Basic Books, 2008, p. 138.

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AS YOU LIKE IT:
CRITIQUE IN THE ERA OF AN
AFFIRMATIVE DISCOURSE

/

MERCEDES BUNZ

FACEBOOK   CRITIQUE   SOCIAL
AFFIRMATION   DATA   LIKE
POWER   ORDER   CENTER
DISCOURSE   NEGATIVE   WORLD

I like. You like. He likes. She likes. We like, and we like a lot. Three billion two hundred million of mostly likes but also comments have been generated by users daily in the first quarter of 2012 according to Facebook.[1] The counterpart of an 'I dislike' or Hate button is neither existing nor is it planned. An efficient trick: Facebook barely needs to discipline its users, instead it rather designs their actions, and these are positive. It is not that there can't be disagreement on Facebook. It is only that its utterance is made more elaborate as it needs to be declared in the comments. Thus, it cultivates the approach of agreement instead of critique with a design that visually prefers affirmation. At first sight, this approach of Facebook can be explained by the fact that friends generally have positive things to say to each other. They have some things in common, respect each other, and share some interests. Facebook, however, isn't simply a network of friends, but of several millions of friends. This is precisely why the affirmation cultivated on Facebook has a social dimension – it is much more than just a private matter among friends. When its basic design avoids the dialectic order of the modern discourse, for or against, to replace it with the affirmative proposition 'I like', it unfolds a discursive style that is about to become more and more dominant in our societies: the rise of an affirmative discourse. Can critique be saved?

Auschwitz? I Like!
A couple of days after the Unlike Us conference in Amsterdam in 2012, the liquidation of the Jewish ghetto in Cracow had its gloomy anniversary. In order to commemorate the event that had started on March 13th, the following post could be read on the page of the Auschwitz Memorial Museum on Facebook:

> On 13-14 March 1943 German liquidated the ghetto in Cracow. The action was supervised by SS-Sturmbannführer Willi Haase. Around 6,000 Jews who were able to work were transferred to the Plaszow concentration camp. Around 1,000 people were murdered in the streets of the ghetto. On 13 March a transport of around 2,000 Jews was sent to Auschwitz. After the selection 484 men and 24 women were registered in the camp. The remaining group, around 1,492 people, were murdered in gas chamber II.[2]

Seventy-seven people have clicked the Facebook button to like this as of October 2012. Of course, these people are no Nazis. As there is no alternative button, one indicates

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1.   Tina Kulow, Facebook Corporate Communications Manager, email message to author, 20 July 2012.
2.   Auschwitz Memorial / Muzeum Auschwitz, 'On 13-14 March 1943 German […]', Facebook update, 13 March 2012, 13:25, http://www.facebook.com/auschwitzmemorial/posts/10150592000141097.

that we will not forget an incomprehensible genocide by liking the horrible details that it gets broken down into in this status update.

Facebook's structure allows one to publish several postings a week and not just one article, leaving room for individual stories and the smaller, but no less crucial, day-to-day events we barely ever hear. In 2009 the Auschwitz Memorial Museum decided to use Facebook in this exemplary way in order to keep remembrances alive through the new communication platforms of our society.[3] In addition to this it has also done something else: when the historic horror of the Holocaust integrates itself only disruptively into the affirmative default of Facebook, it reveals that there is something new governing social discourse. The page of the Auschwitz Memorial Museum on Facebook is a good example to sketch out how our social discourses are now subject to Facebook's affirmation – if you want to be part of the new digital public, you need to be on Facebook. And to make the matter worse, the governance of affirmation is a case not only by, but far beyond Facebook: this social network is only the platform where the new domination of this discourse becomes perfectly apparent.

Let's pause for a moment with sociologist Bruno Latour to understand this paradoxical position in which we find Facebook. 'Even the simplest techniques are sociotechnical', he writes.[4] Here we find an interesting ambivalence at play: are technologies an effect of the social or is the social an effect of a technology? As our complex realities teach us, both seems to be the case: Facebook's design clearly imposes the discourse of affirmation upon us, but when we look around (which we will do in a moment) we can also sense it in society, so its appearance in Facebook might well be nothing but a social trend a smart developer like Mark Zuckerberg decided to take up. With Facebook making affirmation apparent, let us now turn our attention to the political reality we live in, in order to see if we can sense it being used as a tool in today's social discourse of power.

In politics, the degeneration of the dialectical order has been evident for some time in both domestic and foreign affairs. Concerning internal politics, the old categories of 'right-wing' and 'left-wing' parties, established for the seating arrangement of the French National Assembly of 1789, have been questioned in most industrial states. Concerning foreign affairs, the division of an east and a west bloc collapsed with the fall of the Berlin wall. So where to now that the dialectical order has fallen apart? It must be said, that the idea of a 'third way'[5] didn't take us very far. Today, it slowly becomes apparent that a certain type of affirmation has widely replaced opposition, and the British government's attitude towards the European Union is a very good example of this.

Comparing the approach of Prime Minister Margaret Thatcher and Prime Minister David Cameron, one can not very surprisingly say that their attitude stays the same: as it befits a British Conservative both are rather critical towards the EU. However, the direct comparison of two YouTube clips of their speeches in Parliament demonstrates that the

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3. See the Facebook profile of the Auschwitz Memorial Museum at, http://www.facebook.com/auschwitzmemorial.
4. Bruno Latour, 'A Collective Of Humans And Nonhumans', in Bruno Latour, *Pandora's Hope: Essays on the Reality of Science Studies*, Cambridge, MA: Harvard University Press, 1999, p. 210.
5. Anthony Giddens, *The Third Way*: *The Renewal of Social Democracy*, Cambridge, UK: Polity Press, 1998.

representation of their critical attitude couldn't differ more. While the Iron Lady defiantly belts out a 'No, no, no!' towards the EU, 21 years later Cameron hides his opposition in a far off corner of affirmation: he went 'seeking a deal' and responded for a treaty change 'in good faith' 'genuinely looking to reach an agreement'.[6] It is obvious that the discourse of power has changed and with it its rhetoric. While Thatcher's political power is clearly visible in her negation of the EU, Cameron's power enacts the same but operates subversively under the cover of affirmation: it's not his fault that he vetoed a fiscal pact 25 other EU states had agreed to join, he wanted an agreement.

Both the Auschwitz Memorial Museum and Cameron's re-interpreted refusal examples make it apparent that not only on Facebook, but in a very general sense, the order of our social discourse has embraced affirmation. And being critical towards this, we find our next question: how does power operate in the governance of affirmation?

Let Your No Be No & Your Yes Be No, Too

To explore this question, let us stick with Facebook as an example, and analyze how the company deals with resistance. On the 19th of August 2011, the Independent Data Protection Center (Unabhängiges Landeszentrum für Datenschutz) of Schleswig-Holstein decided that its region should become the famous Gallic village opposing the Roman Imperium that today is named Facebook. Shortly before, the social service had introduced a feature that would enable it to reach far beyond its platform. It redesigned its Graph API and allowed websites to implement its 'Like' button with Mark Zuckerberg announcing at the F8 conference in San Francisco on April 21, 2010: 'We are building a web where the default is social'.[7] Harry Halpin's illuminating talk at the Unlike Us conference in Amsterdam[8] illustrated how Zuckerberg managed to do this: Facebook had joined the World Wide Web Consortium to deploy their open standards for building not an open, but a giant closed global graph.

The Data Protection Center in Germany decided they wouldn't accept this, having the following objections: the retrieved data from the Facebook button on an exterior website – information about who visited what, when, and if they 'liked' it – wouldn't remain with the websites. In order to analyze this, the Facebook service transfers traffic and content data to the USA. Websites that implement the neat thumbs up Facebook satellite don't supply sufficient information about this to users. Furthermore, Facebook doesn't meet the legal requirements relevant for compliance of legal notice, privacy consent, and general terms of use.[9] As such, the Center decided to prohibit the implementation of the Facebook button on websites registered within the region of Schleswig-Holstein. By

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6.   Videos are available at: 'Margaret Thatcher No No No', http://www.youtube.com/watch?v=Tetk_ayO1x4; 'British Prime Minister David Cameron defends EU treaty veto', http://www.youtube.com/watch?v=u-LePwTb53s.
7.   Dan Fletcher, 'Facebook Looks to Get Personal', *Time,* 22 April 2010, http://www.time.com/time/business/article/0,8599,1983721,00.html.
8.   Harry Halpin, 'The Hidden History of the "Like" Button', Unlike Us: Understanding Social Media and their Monopolies Conference, Amsterdam, 8-10 March 2012. Documentation of the talk can be found at: http://networkcultures.org/wpmu/unlikeus/2012/03/10/harry-halpin-on-the-hidden-history-of-the-like-button.
9.   Unabhängiges Landeszentrum für Datenschutz, 'ULD an Webseitenbetreiber: "Facebook-Reichweitenanalyse abschalten"', Unabhängiges Landeszentrum für Datenschutz, 19 August 2011, https://www.datenschutzzentrum.de/presse/20110819-facebook.htm.

the end of September 2011, website owners within the region who still made use of the service would be punished with a fine of 50,000 euro.[10]

This sparked an intensive dialogue. Facebook's Director of Policy for Europe, Richard Allan, signaled the company's willingness to talk, and Schleswig-Holstein's Data Protection Center described their exchange as of a 'friendly atmosphere'. However, from the perspective of the Center technically nothing changed. According to them Facebook firstly offered to handle their web traffic analysis, called Insights, more transparently, but then never delivered corresponding technical documents that could sufficiently support this offer.[11] When asked about this in a second conversation, the German Director of Policy Dr. Gunnar Bender conveniently could not ensure them this material either as Facebook operates in Europe as an Irish company, and as such isn't within the jurisdiction of its German Director of Policy.[12] The Schleswig Data Protection Center learned it needed to contact the data protection authority in Dublin, a call that Facebook then would have to answer.

Playing hide and seek in a globalized world is how power in the era of affirmation operates: dodge responsibility, just indicate good will – we are not the ones responsible, indeed we also don't like this problem and agree with you. This discursive style – duck and cover with affirmation – has already found its talking head in the humble Rupert Murdoch, a businessman who claims not to be responsible for his business, the company News International. Today executives just sign, but don't leave signatures in their company's culture. Illegal phone hacking, as it came to light in the scandal of July 2011, might have been a practice in not just one, but several of his publishing houses. Yet still, he explicitly stated he would not accept his ultimate responsibility and instead handed failures down further and further until they were out of his reach and rested with the regular guy on high street: 'I hold responsible the people who I trusted to run it and the people they trusted.'[13]

Summing this up, it is clear that the friendly reply of Facebook to Schleswig-Holstein's data security center, Prime Minister Cameron's 'good faith', and Rupert Murdoch's 'humble' response, and surely numerous other examples, share a specific gesture. These indicate good will, but hold others responsible. This characterizes power in the era of affirmation, and here Facebook, the new imperium, is just one among many.

Irritation as a Tool of Critique
When Schleswig-Holstein's data privacy center decided to intervene, it looked unpromising: a small institute located in Kiel was facing-off against an internationally operating corporation employing a brigade of lawyers. In addition, the center couldn't reach for Facebook directly, but needed to attack the social platform via the detour of regulating

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10. Unabhängiges Landeszentrum für Datenschutz, 'ULD an Webseitenbetreiber'.
11. Unabhängiges Landeszentrum für Datenschutz, 'Facebook Sucks – Objection is Still and Once Again Necessary', Unabhängiges Landeszentrum für Datenschutz, 16 May 2012, https://www.datenschutzzentrum.de/presse/20120516-facebook-sucks.htm.
12. Unabhängiges Landeszentrum für Datenschutz, 'Facebook im Gespräch mit dem ULD: Keine Verbesserungen beim Datenschutz', Unabhängiges Landeszentrum für Datenschutz, 24 July 2012, https://www.datenschutzzentrum.de/presse/20120724-facebook-stillstand.htm.
13. 'Rupert Murdoch: I do not accept responsibility for wrongdoing at News of the World', *The Telegraph,* 19 July 2011, http://www.telegraph.co.uk/news/uknews/phone-hacking/8647802/Rupert-Murdoch-I-do-not-accept-responsibility-for-wrongdoing-at-News-of-the-World.html.

other websites in their region who were using Facebook's service. In this instance, critique seemed to drip off of Facebook like rain from a raincoat: the company was out of reach, and the rain fell onto others. Elusiveness of this kind is symptomatic of power in the era of affirmation. This is also the case with Rupert Murdoch because while he stayed in business, 200 journalists were made redundant when closing down his hacking flagship News Of the World. Here, negative critique isn't effective anymore, for what is negated has made a side-step out of reach, and indication of good will by the offender often even concurs with the critique. Here, the Hegelian power of negation, that once fueled resistance, finds itself without effect. This is worrying not only for the opponents of Facebook, but for our society in general. In this context what becomes of critique? Can it be saved?

Negative critique has been conceptually important for pushing our societies forward. Hegel, for example, gave it a central role when he described that an existing condition is enhanced by its negation, and both the condition and its negation, are synthesized and 'sublated' to a new level.[14] 'That which enables the Notion to advance itself' he says, 'is the already mentioned negative which it possesses within itself; it is this which constitutes the genuine dialectical moment'.[15] It is the negative that 'enables to advance' as it introduces progress to a society, for even in its most general sense of faultfinding, negative critique aimed to make the world better (despite cynics who might object, saying it made the faultfinders feel better). Negative critique was about improving, and if critique no longer reaches the one it means to oppose, one has to ask 'how can our societies make progress?'

Clearly dialectics as much as negative critique hasn't just been a philosophical concept. Far beyond the critical theory of the Frankfurt School, they are central to human emancipation, and their signature left a deep mark on modernity in general and democracy in particular. All democratic societies rest on the assumption that we have a government and an opposition that by negating the government's policy doesn't simply control it, but also challenges it for the better, as in progress. Opposition in the form of positioning a left and right structured our public social life, parliaments, as well as newspapers and media organizations. Thus, when the concept of critique is at stake, our modern democratic societies have reason to worry.

Knowing about the importance of negative critique, however, doesn't change the fact that in the current affirmative discourse it grasps at nothing: the opponent simply agrees and indicates good will, too, while of course nothing is supposed to be changed. Fortunately, negation isn't the only drive for making progress. Negative critique surely has been one of the most used rhetoric techniques, but argumentation can follow many ways in order to push at the borders. Besides *aporia*, very much loved by Kant,[16] there is *chiasm* beloved by Derrida,[17] or historic comparison and tracing transformations often

14. Alexandre Kojève, 'The Dialectic of the Real and the Phenomenological Method in Hegel', in Alexandre Kojève, *Introduction to the Reading of Hegel*, Ithaca, NY: Cornell University Press, 1969, pp. 169-260.
15. Georg Friedrich Wilhelm Hegel, *Science of Logic*, London: Routledge, 2002 (1969), p. 55.
16. Immanuel Kant, *An Answer to the Question: 'What is Enlightenment?'*, London: Penguin Books, 2009 (1784), p. 1.
17. Jacques Derrida, *Aporias* (*Meridian: Crossing Aesthetics)*, trans. Thomas Dutoit, Palo Alto, California: Stanford University Press, 1993.

used by Foucault,[18] as well as deductive and inductive reasoning. As a matter of fact, the term critique itself has been used in ways other than to indicate negation. Kant's *Critique of Pure Reason*, and later Walter Benjamin's *Critique of Violence* referred to the term in order to signify the examination of a subject.[19] This indicates that critique is not reduced to negation, and elaborating on this train of thought the philosopher Kathrin Thiele recently proposed an affirmative engagement with criticality. Still, there is a problem: what becomes of resistance? If we let go of the concept of negation, we lose the tool of opposition. How can power be controlled? Again, this question can be followed up if we return to Facebook and its way of processing power.

When power operates in the new discourse by going underground, when power isn't exercised but must be investigated, analyzed, and unveiled to become visible, its mode of operation has obviously changed. At first glance, the strategy of the Data Protection Center's opposition to Facebook failed as it just caused trouble for some websites in Schleswig-Holstein, with about three of them awaiting trial in the administrative court before the end of 2012. Regarding Facebook, however, the small Data Protection Center didn't agitate in vain. While it couldn't reach the company directly, its actions have caused productive trouble. It stirred up attention with media reporting worldwide about the Center's undertaking, with articles making people aware of several facts including that what Facebook calls an Open Graph is technically a walled garden, that there are very real ways in which their very personal data travels, and that it is operating as a generally hard to reach Irish company. The Center's action has also reminded Facebook that it needs to respect the law, instead of operating in the independence of cyberspace used by big players pushing others around. Furthermore, by reserving the right to question Facebook even though the situation seemed unpromising, the Data Protection Center opened the space to claim that people don't 'want to be governed like this' as one could say, loosely based on the words of Foucault.[20]

While a direct opposition couldn't reach Facebook, the actions of the Data Protection Center disturbed its circles. It has not been able to directly force the company to enact change, or to win the argument, but it caused irritation and drew attention to a problem that couldn't be hidden anymore. Thus it can be said, that today irritation is a technique of enlightenment, and a forceful one: negation can be appropriated, irritation can't. As we find negative critique neutralized by the mantra of 'generally agreeing with the cause' and 'not being responsible', negative opposition comes to nothing. Here, irritation doesn't allow the covering up of problems and forces us to look into the details to learn about what's going on. From this position the notion of critique can also be re-appropriated.

Stay with the Trouble

Philosopher Katherin Thiele, while debating critical thinking of today at a conference in Berlin, made an interesting suggestion: to read critique not as a process of detecting,

18. Michel Foucault, 'What is Enlightenment?', in Paul Rabinow (ed.) *The Foucault Reader*, New York: Pantheon Books, 1984, pp. 32-50.

19. Walter Benjamin, 'Critique of Violence', trans. Edmund Jephcott, in Walter Benjamin, *One-Way Street and Other Writings*, London: NLB, 1979 (1921), pp. 236-252.

20. Michel Foucault, 'What is Critique?', trans. Lysa Hochroth and Catherine Porter in Sylvère Lotringer (ed.) *The Politics of Truth*, Los Angeles: Semiotext(e) 1997, p. 44.

uncovering and fighting contradictions, but as an immanent practice, i.e. to engage.[21] Quoting Donna Haraway's approach of 'staying with the trouble'[22] this concept of critique as a radical affirmative gesture proposes to get attached to the matters at stake, maneuver them, and negotiate them into a 'different' future, instead of the tendency to 'separate', 'distinguish', and 'distance' ourselves from what we don't like. A gesture that stands critique on its feet in a Kantian way as it enacts critique much in the same sense that he had regarding enlightenment: as a 'strenuous exercise', and not as a 'fantasy of omnipotence',[23] as Thiele points out. In order to not again live in a self-incurred tutelage, we need to 'have the courage to use our own understanding'. In the absence of a preconfigured dialectical world neatly tidied up in two opposing sides, we need to organize ourselves newly 'against alignment with the way of the world, against withdrawal from engagement with the world', as the British philosopher Peter Hallward put it when he conceptualized a 'prescriptive practice of politics'[24] worth looking into. For we need to find new answers. In today's world, things are complicated and complex which is as exhausting as it is an interesting challenge.

This challenge is given with Facebook. While there is reason to make the point that we do 'not want to be governed like that', not after these rules, it isn't simply our enemy. Despite the affirmative, thumbs up design of the platform, it can also be a critical social tool, and furthermore one that does not only collect data from its users but also provides security for them. In the revolutionary uprising that started December 2010 and was later coined the Arab Spring, Facebook among other social media sites was used to organize demonstrations and protests as well as to record and report violence. Ordinary people started to publish clashes with security forces in the streets, and film brutal violence and devastating funerals using their camera phones. After many other video sharing sites had been blocked in Tunisia by the government, Facebook became an alternative news agency, and found itself soon in the focus of the country's security force. These forces used the internet service providers to introduce a malicious piece of code to steal users' login information when they went online. Here, Facebook's Chief Security Officer Joe Sullivan responded smartly with two technical solutions: in order to encrypt the information sent they rerouted it to an https server, but to really ensure that the right person had logged into the account, they made him or her identify their friends in photos.[25] A simple but effective trick. Here, the following becomes obvious: in the era of affirmation there are always more than two sides. Still, we need to make a stand, and we can. Instead of negating, critique in the affirmative discourse holds on to issues in order to stubbornly guide this world into a different future.

21. Kathrin Thiele, 'In Critical Condition or Fully Out of Steam? Critical Thinking Today', *Gegen/Stand der Kritik*, International Conference by the DFG-Graduiertenkolleg 'Lebensformen und Lebenswissen', Berlin, June 28-30, 2012.
22. Donna Haraway, 'When Species Meet: Staying with the Trouble', *Environment and Planning D: Society and Space* 28.1 (2010), p. 53.
23. Thiele, 'In Critical Condition or Fully Out of Steam? Critical Thinking Today', p. 8.
24. Peter Hallward, 'Politics of Prescription', *South Atlantic Quarterly* 104.4 (Fall 2005), pp. 770-71.
25. Alexis Madrigal, 'The Inside Story of How Facebook Responded to the Tunisian Hacks, *The Atlantic*, 24 January 2011, http://www.theatlantic.com/technology/archive/2011/01/the-inside-story-of-how-facebook-responded-to-tunisian-hacks/70044/.

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**SILENCE,
DELIRIUM, LIES?**

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CAROLINE BASSETT

SILENCE   LANGUAGE   SOCIAL
CODE   RESPONSE   MONOPOLY
COMMUNICATION   ILLICH   WAYS
VOICE   SPACE   FORMS

We tell the truth best by becoming lies.[1]

One way to respond to the monopoly of commercial social media is to stop communicating. Resist terminal integration into expanding communicative circuits reaching far beyond the screen. There are various options: switch off, turn away, misspeak, refuse to play – or become silent. Don't make the social noise that generates the exploitable signals.

Such forms of communicational dissidence are rather rare. Few people actively disconnect – although many drift off various sites. Individual Facebook withdrawal, often framed as an ultimate disengagement from 'me media', for instance, is relatively uncommon; perhaps because those who would do it are only too aware of those left chattering about their 'demise' in now inaccessible places. Calls for a shared switch off, which might have potential as a collective response to various forms of communication monopolies, also tend to have little resonance, once again, perhaps because of the uncertainty about *in which space* such a response would resonate. We are in the grip of media-centricity – the perspective that says life finds significance through 'the media' – and we reify communication.

In fact, there is more than indifference here; to suggest that a critical response to social media's voracious demands for *more* material might be to produce *less* of it doesn't appear to be acceptable at all. Moreover, this is the case not only amongst those who endorse social media and the environments it co-produces, but also amongst many people wary of the commoditized modes of communication social media enables. To become silent, to fail to contribute, to frustrate communication, to refuse to network, to *un-compute*; these are all activities which provoke widespread suspicion and unease.

Maybe this response is not so surprising. Silence is traditionally a weapon of the powerful, given that it is the weak who are silenced and the strong whose voices are heard; one reason why it appears an unlikely element of any plan to free up communication. Moreover there is the widespread sense (in the West but also elsewhere) that a certain kind of communicational plenitude has only just been won. The specter of a 'before' characterized by information and communication deficit haunts the present – and updates itself automatically. Consider, for instance, the mass media forms defined by immense asynchronism (e.g. broadcasting's lack of a back-channel) that framed the web

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1. China Miéville, *Embassytown*, London: Pan Macmillan, 2011, p. 296.

in the 1990s, or that same 1990s web, now framed as the hopelessly lacking 'before' that is contrasted with the 'properly social' qualities of the (post) Web 2.0 world. It is easy to create almost mythical accounts of the very recent past in which communicational technologies appear baroque in their peculiar inadequacies – silver halides, party lines, phones, degrading reproduction cycles, two or three television channels, phones stuck to walls, nothing *personal,* let alone *personalized.*

Combine these two together and the result is a lock-in (keep communicating at all costs). Moves from restriction to ubiquity in communications media are related not only to media systems themselves, but are also taken to describe more general developments; social media is mapped onto consumer power (personalization) and old media linked to lack of choice (Fordism) and the rise of 'free' social media is associated with the rise of political freedom, while its other, old/passive media, always stands for the obverse of that. Such multiple associations, becoming naturalized, make it easy to miss the obvious discrepancies that arise when real formations are explored. Consider for instance the assertion that the rise of a commercial social media platform offering more for 'free' (more 'free' space for content, more 'choice' about ways to connect and organize it), *automatically* advances other forms of freedom – for instance, values fundamental to social justice or democracy. The distinction between 'freedom and free beer' is real – and yet it is all too often elided. To assert that we 'now' have communicational plenty and that this brings with it other 'plenty' (plenty of freedom, plenty of justice) has ideological effects; notably it contributes to a wariness about any strategy or tactic or argument in favor of any form of media politics that looks like it may result in (a return to) restriction, channel narrowing, message frustration – or media silence.

In response to this formation, indeed seeking to disrupt it, I begin not with slippery discourses of freedom (and democracy) but with growth – and with the neoliberal desire to 'free-up' growth. It is my contention that to call for *less* communication – at its most extreme a call for silence – is heretical in conditions of social media above all because such a call confronts the fetishizing of the *more* associated with technological progress, when the latter is regarded as inseparable from progress in general – and when both are aligned with discourses that value growth as a social good.

Many who question growth agendas in other areas do not question technological progress, and where they see problems with technology, or with a particular implementation, seek a specifically technological fix. Technological good, communicational good, and social good; here is another set of alignments – and we can note that good is defined in terms of *more*. Consider that it is widely regarded as anti-social *not* to be in favor of building community through increasing the density of connections (getting more wired). Moreover, such a stance tends to be regarded not only as anti-social but also – and it is clear how the two are integrally connected here – as anti-technological. So, a community that blooms and buzzes, and that is more (digitally) connected, is judged to be more 'healthy', more 'open', more 'welcoming', even more 'alive' or 'human'.[2]

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2. Today noise levels are said to be increasing in most societies, an increase widely accepted as an inevitable (side) effect of progress (anti-noise campaigns not withstanding). This has produced a market for forms of commoditized noise control and acoustic anti-pollution movements. For a consideration of rising noise see Sandra Braham, 'When Nightingales Break the Law: Silence and the Construction of Reality', *Ethics and Information Technology* 9 (2007): pp. 281-95.

In these contexts, demands to reduce communicational traffic appear reactionary. In England at least, the old accusation of Luddism is dusted down and made ready for redeployment.

To fail to contribute to the volume or density (and note that density becomes capacity alarmingly fast) of the social environment is to blaspheme in a world in which growth is deified and in which technological growth is aligned with progress. This text, having no problems with such blasphemy, investigates ways in which silence and related forms of communicational revolt might constitute an appropriate response to social media monopoly. It is because this demand – at its most extreme becoming a demand for silence, but not restricted to that – is thoroughly unacceptable that it is also intriguing.

Central to the arguments developed here is the work of the 20th century activist and thinker Ivan Illich – who explored technological monopolies and (separately) silence as a response to earlier electronic media systems. Illich demanded the establishment of the silent commons as a response to what he saw as the tyranny of the amplified voice and the evisceration of human relations within the electronically organized spaces such amplifications produced.[3]

Illich was writing about television and associated media systems, but in this article I ask if a return to silence might enable new forms of common space to be created today – so that individual and collective voices might be heard again beyond the personalized enclosures of the commercial social media platforms. Something Illich's thinking can open up is the sense that there are ways of thinking about language – perhaps in terms of volume, audibility/silence, voice, complexity, and polysemy – that enable it to become the basis for a response to social media monopoly, for a communication politics that might, despite *beginning* in the symbolic, be able to spill over into something – some places – more material.

This is an approach beginning with the senses (listening, silence, audibility) and as part of this, along with silence, I consider the potential found in the texture of language and speech when it is divorced from meaning and becomes a form of glossolalia. Finally I turn back from the senses to consider the revolutionary capacities that symbolic language holds within itself – its ability to signify two things at once, which means, as Walter Benjamin put it, that it can 'communicate *something* (other than itself)'.[4] This opening, which is also re-doubling, is at its most concentrated in the figure of metaphor, constituted by forcing together a truth and a lie to make something new. It is also here perhaps that natural language is furthest from coded instruction. Silence, delirious language, and the lie are all inimical to Facebook and its ilk for the kinds of communicational economy social media platforms operate and architect. And so, if the truth we want to tell is one that does not want to give itself away (for instance if

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3.   See, Ivan Illich, *Tools for Conviviality*, 1973, http://www.opencollector.org/history/homebrew/tools. html; and Ivan Illich, 'Silence is a Commons', *CoEvolution Quarterly* (Winter, 1983), http://www.preservenet.com/theory/Illich/Silence.html.

4.   Miéville quoting Benjamin in the epigram to *Embassytown*. (Originally from Walter Benjamin, 'On Language as Such and on the Language of Man', in Walter Benjamin, *One-Way Street and other Writings*, London: New Left Books, 1979, pp. 107-123.)

we do not wish to be 'used' instrumentally even as we speak to excoriate such forms of 'use'), then in today's conditions, in times when our selves, amongst other things, are harvested through our communicational acts, we may be silent. Or, as one of the novelist China Miéville's characters puts it in *Embassytown*, a recent science fiction work celebrating language for its ability to become revolutionary, we may 'tell the truth best by becoming lies'.[5]

A Walk in Embasssytown…
A brief foray into Miéville's novelistic world may be a useful place to start. It is an exploration of how a monopoly over communication systems, and in particular a monopoly over translation – where a word must always face two ways at once (but the question is how) – may become an instrument for the maintenance of social power. However it also explores how those who wish to contest this monopoly may also take up language as a tactical weapon. In this case the tactics include silence and muteness, the exploitation of linguistic delirium (glossolalia). Above all however, Miéville is celebrating the resilient power and force of metaphorical language to open new worlds and shake established hierarchies. All of this, it is true, takes place far away (in a remote world 'beyond the Immer' in Miéville's writing, and for us, in a fictional universe). Despite that, *Embassytown,* fictional and remote, is at the same time, all about here, now, today. Investigating contexts and ways in which language may face two ways at once it is also a contemporary commentary on linguistic conditions or relations at a time of dawning social media monopoly.

…And a Return to Social Media
Let's return to consider the operations of actually existing social media; specifically platforms and architectures where what takes place in natural language also always takes place as technology – another re-doubled articulation.

That social media is Janus-faced is self-evident perhaps, but it is nonetheless something easy to overlook. In fact a peculiarity of technologically mediated communications of many kinds is the way in which users are invited to ignore the specifically technical operations that are intrinsic to their functioning (consider that one of the attractions of social media platforms for many is that their affordances are easily experienced as 'non-technological'). These platforms are designed to suggest that in speaking, writing, querying, in using language online, people are simply carrying on doing what they have 'always done'. iPhone conversations or tweets, after all, take place in English or French or Chinese and spell checkers or word processors use familiar dictionaries. And though some have argued that language 'itself' degrades in conditions of its word processing, there is, to counter that, ample evidence of linguistic creation and innovation in response to a new medium; to (almost) paraphrase Volosinov, language endures as it becomes[6]. Within the framing of the various social media platforms through which interaction increasingly is routed, speech retains the power, given by metaphorical language, to open new worlds, to innovate semantically, to say this and mean that at the same time. But something nonetheless is different. And the difference is that even as these interactions in language are represented

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5.　　Miéville, *Embassytown*, p. 296.

6.　　V.N. Volosinov, *Marxism and the Philosophy of Language*, New York: Seminar Press, 1973.

on screen in ways that imply business as usual – only so much more of it – another business is being simultaneously transacted; *another mouth is eating you up*.

Our interactions are, as a condition of being embarked upon, captured in code, added to databases, and processed and annotated in various ways. What's said and done in one language (natural language in all its complexity) is thus simultaneously rendered into non-equivocal digital code. In this second form it is quantifiable, marketable, and – paradoxically since it consists of material concerning social interaction – no longer accessible to you-the-human, since you do not control its further circulation. And in that process, which produces a system of communication beyond speech and language, the metaphorical reference of words, their capacity to continue to refer beyond themselves, and thereby create, is discarded. Ambiguity and polysemy is not appreciated in such processing and creativity is certainly not the organizing principle; rather the aim is disambiguation, efficient chunking. It is true, is it not, that the last thing Facebook wants is data about you that lies?

By the way, you know all this already. There is no conspiracy implied here. This is the process to which you-the-user consent. The contract is very clear; social media demands personal data donation as the price for full engagement in those forms of communication that are becoming intrinsic to everyday life and that increasingly shape it. This exchange is the central component of what has emerged over at least a decade and a half as the standard model for the commoditized virtual community of all kinds (see for instance the early GeoCities' contracts for a pre-millennium example[7]). As noted, however, if this exchange is formally speaking open, one side of the operations it authorizes is under-represented (actually un-represented) to users, and this produces a systematically distorted view of who or what is being communicated to what or whom. It is partly because of our reliance on the ocular[8] – the degree to which our habitual focus on the visual may bind us to the screen, and lead us to largely ignore what else is going on – that it makes sense to me to consider a response to social media monopoly that draws on auditory categories (e.g. noise and silence) and that might mistrust – seek to listen through, or still the noise of, the screen. A sonic perspective (even if a virtualized one) provides a fresh way to audit social media operations.

The Various Contents of Silence
I noted earlier that silence – silencing – has often been a tactic of the powerful. But now I want to qualify that silence has also been a tactic adopted by dominated groups, and has become the basis of freedom claims. Alongside calls for the right to speech, after all, have come calls for the right to silence – and in some ways these are more fundamental. Protests made in silence (perhaps made *of* silence) have been effective –

7. Caroline Bassett, *The Arc and the Machine*, Manchester: Manchester UP, 2007.
8. See for example, Frances Dyson's considerations of ocular prioritization. However, I am not arguing that digital media 'is an aural media'. It seems to me that retaining an ocular-centric point of view is often useful in relation to exploring social media networks precisely because it underscores how the degree to which interactions remain/retain centered around forms of screen-based interaction – if emphatically not on life – on screens. (Frances Dyson, *Sounding New Media: Immersion and Embodiment in the Arts and Culture*, Berkeley: University of California Press, 2009).

not least in conditions of radical monopoly of media and communications, for instance when a communications monopoly is held by the state. It is useful to note that revolutions have begun, not with Twitter, but with and in silence[9]; in a public silence that, if it refuses to make a statement, nonetheless *contains* – and *contains audibly* – all kinds of intentions.

If we are going to re-think what silence can do, it makes sense to also re-think what it *is*. Silence has been conventionally defined as the absence of noise, and although noise itself is understood differently in various contexts, in many registers noise is unwanted sound. In information theory for instance, the distinction between noise and signal is supposed to define wanted information and unwanted distortion and so silence might be taken to indicate a lack of signal as well as lack of noise – an entire absence. In contrast however, consider the explorations of John Cage, the 20th century composer noted for *4'33"*, the 'silent' work.[10] This led to different conclusions – and sparked new forms of thinking about silence. What is useful here is to note that for Cage silence is never absolute, nor absolutely empty.[11] After experiencing an anechoic chamber where he heard two sounds of his own bodily systems (a double hum), his conclusion was that human life and silence are inimical. Humans, as embodied creatures, cannot experience absolute silence. *4'33"*, often thought to produce empty space, is thus more properly understood as an exploration of the sounds that filled the space *produced* by a score that ensured the absence of *deliberate* or *programmed* sound.

In a more recent investigation of silence Sarah Maitland discovered the sonic qualities of silent landscapes (the desert versus the hill, the moorland, the sea). In doing so she also opened up ways to think about the various contents of silence.[12] In a deeply personal (and in the end eschatological) quest, Maitland also explored the distinction between environmentally-given quiet (the still wind in the desert) and the absence of human interaction or human voice. Her escape, like many hermits before her, was not only from the clamor of the town or settlement, but from the conventions of constant connection involved in everyday life within a community. Moreover, if it was the latter she wished to escape from most urgently, it was the former – the landscapes of silence, *which are the spaces that silence makes* – that drew her in. Maitland never explores explicitly technologically produced spaces (virtual worlds for instance), but her account is relevant here because she is nonetheless responding to a general environment (an everyday life) increasingly operating according to the generalized communicational logics of noise acceleration produced by radical monopoly. Looking at the increased noisiness of the world, she might be said to find in silence a way of answering it back.

Maitland records her progressive retreat from the world so this is in some way a public response to contemporary social conditions (as it might have been a public/private gesture for some of the hermits whose history she traces out). However it is clear that,

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9. Consider for instance the missing applause that signalled the beginning of the end of the Stalinist regime in Romania.
10. John Cage's musical score *4'33"* was first performed in Woodstock, NY, in 1952.
11. John Cage, *An Autobiographical Statement*, New Albion Records, 1990, http://www.newalbion.com/artists/cagej/autobiog.html.
12. Sarah Maitland, *A Book of Silence*, London: Granta, 2008.

at its root, this is a private refusal or reorientation. Which provokes another question – what are the prospects for deploying or demanding this kind of content-filled silence in relation to information and communication, and its noise, if this is done as a *collective* response?

The Silent Commons

This takes me back to 1983, when Illich made his call for the defense of the Silent Commons.[13] This call, essentially a manifesto, declares that silence is a shared condition placed under threat by new technologies and their amplificatory functions. It is a critique of mass media, regarded as a deeply non-convivial technology in which communication 'machines' provide prostheses and do so selectively so that certain dominant groups become *louder hailers* with the power to silence others. The hailer, whose own voice has become inhuman or artificial, is through this action denying others the right to become fully recognized as people. This is because, as Illich sees it, having a voice (perhaps the ability to speak out), is something he views as 'necessary for the emergence of persons', and is here disabled.

In the place of a common environment within which any voice can sound out, in conditions of amplification (or here mediatization) an *enclosed* space is formed, in which voice becomes the prerogative of the one who holds the amplifier. The call for a shared right to silence is thus made because it is silence that is needed to enable human voices to be heard again. The call for a silent commons spatializes that and makes of it a demand for the restitution of public space (a public soundscape). For Illich, enabling that right entails the removal of the 'loud speakers' (humans and technologies) that enclose what was previously an open space; a de-privatization. It is evident that for Illich, suspicious of mass communication technologies in general, the 'loud speakers' are both those who speak loudly (the powerful) *and* the tools through which they assert their dominance (the amplification technologies themselves).

In the case of social media and its operational imperatives, it might be argued, extending Illich, that public space is not only enclosed but radically attenuated. The result being that what was an engagement in public (speaking out in a place in which voice may be heard) becomes placeless – because entirely personalized – interaction.[14] The result of this might be that all voices may speak, but not into a common place where they are likely to be heard as one (common) voice. Fears that today's information networks produce endless communication loops that lead nowhere, widely discussed – particularly by Jodi Dean – have connections with Illich's sense of enclosure foreclosing on listening. At any rate the silent commons thesis is certainly distrustful of the efficacy of communication – against which it sets human voice, and in particular distrustful of *volume*. It attacks the ideology that defines freedom as giving 'everybody' a platform, so there are more platforms and each speaks more loudly from them than before, preferring instead silence as that which can enable conditions-in-common necessary to enable all or any voice to speak.

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13. Illich, 'Silence is a Commons'.
14. See, Eli Pariser on social media as database in *The Filter Bubble: What the Internet Is Hiding from You*, Harmsworth: Penguin, 2011; and on GeoCities and its takeover, Bassett, *The Arc and the Machine*.

This might suggest the key task is to defend and build a public commons, or a common space, out of digital materials. But the implications of acting against enclosure are not constrained to virtual space (and it is not clear really what this means in conditions of ecological media) but entail claims to rights in real space. It might be said they join up with what Harvey has termed the rights to the city[15] – and they do so not least because the communicational is part of the fabric of the lived, the at once material and immaterial environment.

Conviviality as a Relation?

For Illich, the way to restitute a commons would be to re-establish environments no longer enclosed by the ordering of amplification. In such places public discussion could take place again; conviviality might be re-established. This aim is strikingly at odds with social media's promise to provide a common platform delivering amplification for all. Following Illich's general logic (if not his precise allocations of convivial and non-convivial labels to specific media), this kind of amplification/interaction does not enable human interaction but in instantiating the enclosing logics of the radical monopoly, it rather tends to contain and commoditize it.

By-passing the determinism implicit in Illich's account, but retaining his sense of the techno-social shaping of technological systems as they are instantiated within real political systems (which group gets to *control* the loud speakers), might demand relocating qualities of conviviality or non-conviviality. Instead of asking if one technology or another is fundamentally convivial or not, we could ask how or where (in which communicational architectures) convivial *relations* become possible and can be sustained[16] and where they are made impossible.[17]

One example of this kind of engagement – and one that shows how silence may be suggestive and how it may operate to produce convivial relations – are the communicational tactics of some within the Occupy movement. In particular the gestural commentaries those listening provide to supplement – rather than interrupt – those speaking are of note here. These non-sounded, non-amplified, commentaries respect silence as that out of which a voice comes. These groups take up space rather than seeking only to communicate in the public sphere, and in doing so they generate forms of (silent) talk that are far from the competitive 'noise' of Facebook[18] – and that have proved markedly difficult to handle or recuperate.

Assessing silence as a tactic, asking how efficacious it might be as a critical response to social media, thus demands asking how silence can be a common concern. And to stress, when I talk about demanding silence here, I am not talking of an injunction to silently and individually withdraw. Silence is being invoked positively, as a means to shape a different kind of un-privatized/de-enclosed communal space, as

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15. David Harvey, 'The Right to the City', *New Left Review* 53 (2008): 23-40.
16. Paul Gilroy, *After Empire: Melancholia or Convivial Culture*. London: Verso, 2004.
17. Paul Gilroy has elaborated conviviality as a desirable form of contact in his discussion of race in *After Empire,* and in other work I have explored its relationship to demands that might be raised around a politics of inter-sectionality.
18. Although they do echo the latter's affirmative conventions – perhaps this is a genuine reappropriation.

the necessary conditions for a new kind of communicational commons. This in itself might operate to question/expose the dynamics of mass personalization – a divide and rule – which invites the valorization of personal responses (and responsibilities) whilst operating on people as a mass.[19]

Resilience

This talk of silence might seem to be very defensive. For instance it might seem to advance the idea that language (natural language) should be *defended* from code, that speaking out-loud should be embarked upon with extreme caution not so much through fear of betrayal – 'be careful what you say' – but through fear of contamination. Fear of the technocratic contamination of language is a line that has been taken. This famous example of the depredations of language explored by Orwell in *1984* as Newspeak is a relevant example. Here words such as 'good', 'plusgood', 'doubleplus good'[20] exemplify the construction of a form of language from which ambiguity/polysemy is to be progressively purged. The intended result of Newspeak was that what could not be entirely quantified could not be articulated at all – *even in silence*. What could be quantified meanwhile would be reduced to the unambiguous basics: positive versus negative, good versus bad – and to pure hate (there is no opposite to this pair since love has been exorcised).

The line being taken here is different. The focus is on finding and enabling resources in language. The intention is to exploit the potential of silence to make a containing space for language to be heard, to consider the force of the voice against the enclosures of meaning, and to draw on the ambiguity and redoubling of metaphorical language – and ask if they can be deployed as a response to developing social media monopoly. We are now halfway there, since we have already established that things can be done with silence – which latter may be understood not as empty, but as containing and framing all kinds of things.

Glossolalia as Delinquent Sound

> [Q]uick-lying: the spitting out of a tumble of noises before the untruth of their totality stole a speaker's ability to think them.[21]

It is through the notion of framing and enabling that silence might be related to glossolalia, or speaking in tongues. Glossolalia is a game with the fabric of voice, 'a semblance of language' that can be imitated when its phonetic rules are known,[22] as the cultural theorist de Certeau put it. This form of speech at once offers meaning and refuses it; what seems like language slides away and is revealed as a chimera. The glossolalic speaks 'so as not to be tricked by words',[23] but also tricks the listener.

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19. For evidence of this standard see social media contracts. These have long made users responsible for their own data whilst also claiming rights of ownership over it. This is an extension of enclosure rights – not only activities but also individuals own data trails, their digital selves, becoming, as a condition of using such enclosed ground, property rights.

20. George Orwell, *1984*, Harmsworth: Penguin, 1989.

21. Miéville , *Embassytown*, p.128.

22. Michel de Certeau, 'Vocal Utopias: Glossolalias', *Representations (Special Issue: The New Erudition)* 56 (Autumn, 1996), p. 29.

23. de Certeau, 'Vocal Utopias', p. 29.

Perhaps then, this kind of speech may also have potential to trick those contemporary mechanisms through which our words are captured. Illich wanted to restitute to people their 'proper and equal voice' through the re-founding of genuinely common space for debate. Glossolalia in contrast points to the potentials found in the improper qualities of voice. It withholds language while promising to speak it, but *by* promising to speak it holds an offer of some form of connection or communion, one that is by definition outside of meaningful transactions. To re-instate the commons, to find grounds that are not entirely and immediately amenable to extraction, to break the hold of monopoly, ways need to be found to draw on what is suggested by the fullness and thickness of voice.

It is said that glossolalia is not an exceptional state. De Certeau, suggests that it 'pushes up through the cracks of ordinary conversation: bodily noises, quotations of delinquent sounds, and fragments of others' voices punctuate the order of sentences with breaks and surprises'.[24] Nonetheless, the more routine but still marvelous capacity of language to point beyond itself and therefore to innovate through its capacity to symbolize and mean, might in the end be more suggestive than glossolalia and the seductive promises found in the grain of nonsensical speech – the choice is innovation over delirium perhaps. I return to this below, but insist here that both language's improper and its poetic aspects – the form found in glossolalia, the latter exemplified in the productivity of metaphor – can be brought into play.

Both that is, might help constitute the unlikely fabric with which at least one form of a silent commons – where what is said is listened to but not captured – might be woven. It is interesting to remember that in China Miéville's *Embassytown* tricks in the texture of language – *the spitting out of a tumble of noises* – are used to find ways into metaphor with its capacity to make meanings out of impossible combinations.

Language, Code, Politics

It may be useful to be clear that the wager here is that, despite the accelerating tendencies towards radical forms of social media monopoly (Illich's useful distinction of radical monopoly is not the Ford but the car), a response is still possible. More specifically a media and communications *politics* is still possible. Some say it is not. Jodi Dean's[25] argument that communication can only communicate with itself, for instance, essentially means that any hope for the transformation of digital systems can come only from outside these loops (as an unexpected event that throws entire social orders into disarray for instance). It is possible to sympathize with this position (and to appreciate the degree to which it de-centers media and communication systems and demands more material forms of engagement) whilst also wishing to consider the resources available for the development of a more proximate response, perhaps even a medium-centric response, to social media monopoly and digital transformation. This – as well as elsewhere – is where we find ourselves.

Chief amongst these resources are language and code. One way to distinguish how they have been used is once again to think about sensory bias: sound or vision?

24. de Certeau, 'Vocal Utopias', p. 29.
25. Jodi Dean, *Democracy and Other Neoliberal Fantasies: Communicative Capitalism and Left Politics*, North Carolina: Duke UP, 2009.

Critical software studies theorists (and activists) working to develop a code politics have often been concerned with questions of visibility. Such approaches begin by prioritizing 'making visible' or foregrounding those *un-represented* code operations (discussed above) that users know about but are enjoined to ignore. They may then move on to argue such processes need to be better understood (digital literacy), or that we need to understand how to intervene in them (code literacy), so that they may be exploited in new ways – or subverted or turned (re-coded). The final step set out here is a hacker response essentially; it seeks to get *close enough* (to code or metal) or *see* what's going on. To me, these kinds of approaches (code studies, software studies of various kinds), become most compelling when they set out to consider not only code (what should be done about code), but those combinations of language/code with which this article has also been concerned.

What is then argued for is the necessity of learning to speak in two tongues at once.[26] The necessity of cultivating new forms of re-doubled intelligence is insisted upon. *Like machines then, humans should be capable of facing two ways at once?*

We already do, of course, being speakers of a language that has at its heart the ability to make meanings out of impossible assertions ('the city is a heart' says Miéville) and to point beyond itself (Benjamin again). But the software arguments imply a different kind of re-doubling or double vision, of course. The intention is to speak in natural language and in machine code; to look in and out of the machine.

One of the issues here is that a call for double intelligence may amount only to learning to speak or write code better[27] (since we already speak natural language); once again then the focus returns to code. Another is that it presumes the natural desirability of remaking code into something *more* capable of accommodating – handling – natural language. This is something that might be viewed as simply upping the efficiency of the recuperation process. Of course this might be set aside, or regarded as beside the point. If it is however, this is because the focus on code – as an abstraction – obscures the issue of social media *monopoly*; which is to say the issue of software as instanti-ated in a specific techno-social system (which to me is the point). It might also obscure the question of scales – code may be handled better, or become less *obscure*, but the limits of particular forms of comprehension (what may be un-covered by code excel-lence or virtuosity) rather than for instance handled in other ways remain.

This implies more hostility than I intend. I agree in many ways: responding to social media monopoly might in the end require both thinking about code work to be under-taken *and* a politics engaging with language. From the general perspective of software studies, this might be based on what I would term a politics based on convergence; the development of forms of language and forms of code that slide closer together – the production of unnatural code and code-like natural language perhaps. However, the perspectives on language and silence developed earlier in this text can be used to think about something very far from this. Rejoining a revolt in language with a revolt in code,

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26. See for example, Mathew Fuller, *Software Studies: A Lexicon.* London: MIT, 2008.
27. See for example, Michael Mateas, 'Weird Languages', in Matthew Fuller (ed.) *Software Studies: A Lexicon,* London: MIT, 2008, pp. 267-276. It is not only in Miéville's weird sf literature that consciously and wonderfully strange languages are to be found.

might demand, paradoxically, not natural language that is almost machine code (or vice versa), but something entirely different. It might for instance demand re-thinking translation itself – and also re-thinking its limits; *not trying to face two ways, but rather re-considering the moment of, the language of, the texture of, the sound of, intersection itself?*

Such potential re-combinations, which might draw up code and language into a new media politics are suggestive. But I want finally to return to the question: *more or less*? This text has been framed by a belief that social media monopolies ought to be disrupted – and in the name of at least two of the things they are axiomatically understood to promote (social justice, solidarity as a form of community) and do not. It has been argued that this disruption might be attempted through a toolset – silence, disruption of language, and the exploitation of language's capacity for polysemy (the metaphor and the lie) – that is not often considered as apt for such a task. My argument, and here I return to salute Ivan Illich, is that these tools *can* be deployed to produce other kinds of more convivial engagements – better commons – than our apparently 'social' media enable. Above all, I have wished to take seriously the idea that communication density, and increasing communicational volume, does not – in and of itself – indicate more understanding, freedom, openness, or 'good'. And that *demands* also taking seriously the idea of a media politics that begins with silence.

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THE FACEBOOK AQUARIUM:
FREEDOM IN A PROFILE

/

IPPOLITA
AND TIZIANA MANCINELLI

VIRTUAL FREEDOM DATA BOOK
POWER FREE BODIES WORLD
TEXT TECHONOLOGY SOCIETY
MARKET KNOWLEDGE IDENTITY
HUMAN GOOGLE COPYLEFT

Just as Facebook shares were being launched on the stock market, Ippolita published an e-book on the 16th of May 2012 titled *The Facebook Aquarium: The Resistible Rise of Anarcho-capitalism*. Through the lens of Facebook, this work offers a crushing analysis of how Foucauldian biopower is embodied in posthuman society, asking what political forms and possibilities are opened up in a world where human life, subjectivity, and social experience, are ever more intertwined with technology.

Ippolita is a heteronomous identity: a research group born from the hacker community and the Italian squatting movement, whose investigations address media, and media technologies, as a terrain of struggles for power and control. Ippolita is also an autonomous server for editorial projects, created to facilitate tools and knowledge sharing in order to increase the awareness of the multi-layered impacts of technology and to create alternatives for communities of mutual aid. All books are under copyleft licenses.

The first Ippolita publication, *Open is Not Free*,[1] underlined the difference between free software and open source. The text discusses how the idea of freedom (of free software) became more open (in terms of open source), moving it towards the market. The second, *The Dark Side of Google*,[2] dealt with the organization of knowledge on the web. A strong criticism was forged about the epistemology of knowledge and the criteria of classification molded by Google's search algorithm (PageRank). *The Facebook Aquarium*[3] is a continuation of the reflections of these earlier works. These three publications point out three crucial turning points in the history of our computing world and its interactions with economy, politics and our daily life.

An Aquarium?
The business model of Google, Facebook, Flickr, and Twitter consists of exploiting users' personal data for profit. Private lives become commodities, and personal identities are put into circulation on global markets. The data gathered from concrete bodies – people's lives, movements, relationships, and interactions – can be fed to the market. The state or some sub-contracted state security apparatuses, can ask for this information for policing and surveillance purposes.

1.   Ippolita, *Open non è free: Comunità digitali tra etica hacker e mercato globale*, Milano: Elèuthera, 2005, http://www.ippolita.net/it/open-non-%C3%A8-free.
2.   Ippolita, *Luci e ombre di Google: Futuro e passato dell'industria dei metadata*, Milano: Feltrinelli, 2007, http://www.ippolita.net/it/luci-e-ombre-di-google.
3.   Ippolita, *Nell'acquario di Facebook: La resistibile ascesa dell'anarco capitalismo*, Milano: Ledizioni. it, 2012, http://www.ippolita.net/it/nellacquario-di-facebook-ippolita.

But the profit generated by profiling and ad tracking, and the surveillance extension, are just the start of the story. Facebook & Co. offer more subtle, and perhaps more profound, threats. These new media are changing our identities, and shaping new lifestyles. Social networks are developing new anthropotechnics to tame and rule the human park.[4] The primary aim of Ippolita's book is to draw attention to, and deconstruct, these processes of identity constitution. It shows how Facebook & Co. create rules for the management of our everyday life, rules which transform our personal relationships and our political engagements, and are bound up with fear, the specter of terrorism, securitization and surveillance. Moreover, social networks are strictly tied to the performance society: as users, we compulsively remodel our walls. We are on stage; we are a part of the Global Show. The application of social control is fully internalized in the oscillation of users amongst self-congratulation, self-denunciation and self-censorship, until reaching the paroxysm in which we connect to the network to check our existence. Facebook embodies the Zeitgeist.

Identity Troubles

The Facebook Aquarium responds to the threats – now greater than ever – against freedom and accessibility on the internet that enterprises like Facebook represent. The book has three parts; each introduces one dimension of the informatics of domination.[5] The first, 'I have a thousand friends but I don't know anyone', develops a thematic thread that runs through the book: the way you use technology, the way you approach it, including our everyday unconscious behaviors, a simple click of a mouse, without any thought of the consequences of an action, can have social and political effects.

To understand this, we need to be confronted by the first step the user takes upon entering Facebook, and social networks services in general. A private service claiming, as Facebook does, 'It's free and always will be' hides the sour truth that if you cannot see the price, you are the commodity. Looking at the code layers that compose the platform gives us some first warnings of the dangers of interaction with these free services. Data are not simply collected, they are the result of multiple sociotechnical arrangements of technological and human actors that configure agency and action. The machine is a mediator, not in the sense of transporting information from one place to another but rather as a device that shapes relationships and is itself shaped by them. In this sense, the social networks are continuing the development of new hybrid forms of *autopoiesis*,[6] framing individuals in worlds managed by technocracies. The technology records the person's activities ('liking', 'befriending', 'posting', etc.) in a database which also registers place and time and that can be mined by a wide range of social actors. The police as well as market agencies are interested in connecting transactional patterns to particular virtual bodies through the use of algorithms.

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4. See, Peter Sloterdijk, 'Rules for the Human Zoo: A Response to the Letter on Humanism', *Environment and Planning D: Society and Space* 27.1 (2009): 12–28.
5. 'The informatics of domination' is an expression from Donna Haraway, 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century', in *Simians, Cyborgs and Women: The Reinvention of Nature*, New York: Routledge, 1991, pp. 149–181.
6. See, Humberto Maturana and Francisco Varela, *Autopoiesis and Cognition: The Realization of the Living*, Dordrecht: D. Reidle Publishing Company, 1980.

The vast majority of users don't think about the power of default settings on social network platforms. And when these settings change, as it happened several times for Facebook's privacy settings, they keep the new default settings and don't worry. Changes are introduced as service improvements. This is the *default power*: the power to change the lives of millions of users by changing a few parameters. All this can be done with little effort. At next login, your profile could be very different from what you got used to, as if you came back to your place and discovered that the furniture has changed, that things were no longer in place. People should always keep this assumption in mind when they talk about crowds and social networking: none of us wants to be part of a crowd, but when we use these networks, we are the crowd.[7] And crowds are subject to *default power*.

Social networking technologies have dramatically transformed the meaning and the nature of both private and public life. By accepting *radical transparency*, users make declarations on every aspect of their lives in a virtual public space (managed by a private company): trivial events, opinions on current affairs, moods, bereavements, relationship 'status', and so on. This succession of details, changes and repetitions, doesn't just display but also creates and defines an identity: this is me, I am who my profile exhibits. The creation and maintenance of a Facebook profile involves the performative construction of identity through a process of regulated repetition as, to quote Judith Butler, a 'reiterative power of discourse to produce the phenomena that it regulates and constrains'.[8] And so the consistency of virtual profiles offers to rescue us from the 20th century's fragmentation of subjectivity – Facebook posits itself as a global response to our identity troubles.

Freedoms and Threats

But Facebook is just a part of a more general phenomenon. It participates in a right libertarian project that has family resemblance with social networking, hackers and activism. How does the micropolitics of everyday techno-interaction feed into macropolitical strategies? In the so-called anarcho-capitalist conception, freedom means the possibility of doing whatever you want – as long as what you want is a commodity that can be bought, consumed, and that generates profit for someone.

The main point made by Ippolita is the relation between the idea of freedom championed by anti-authoritarian projects such as Wikileaks, some Anonymous actions, or some Pirate Parties around Europe, and the anarcho-capitalist rhetoric. To illustrate these affinities, the case study provided in the book is represented by the personal history of Peter Thiel. Founder of PayPal and Facebook's first *angel investor* in 2004, Thiel embodies an extreme *laissez-faire* ideology, which leads to social Darwinism, capitalist meritocracy and individualist right libertarianism.

Facebook is a further twist in the emotional commodification of the internet that started with Google. On Facebook, we can find anything we want: news from any corner of the globe, long-lost friends, partners for (almost) any sexual act, and the latest outbreak

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7.   Ippolita's analysis of crowd phenomena is partly based on Elias Canetti, *Crowds and Power*, trans. Carol Stewart, London: Penguin, 1992 (1960).
8.   Judith Butler, *Bodies that Matter: On the Discursive Limits of 'Sex'*, New York: Routledge, 1993, p. 2.

of insurrection. Our profiles are continuously bombarded and inundated with information, stimulations, and potential satisfactions of every desire, or better, every desire identified by the algorithm or by my virtual friends as fitting my declared and molded identity profile. Whilst believing I'm being active, as a radical transparency follower, I am a passive receiver of information, connections, virtual pleasures, and recognition. We are rapidly moving from a world with a sense constructed by us toward a world that captures a sense due to correlations unearthed by algorithms.

In the second part of the book, Ippolita underlines how Facebook embodies the westernization of a neocolonialist heteronormative society. What is the price of the kind of freedom guaranteed by algorithms? To put it in the words of Bertold Brecht: is it possible to avoid the 'resistible rise' of anarcho-capitalism?[9]

The inclusion of the anomaly is crucial to fulfill virtual control. You can be whoever you want on Facebook. You can be leftist, revolutionary, queer, outrageous. But, for all its illusions of radical democratic participation, the aquarium offers no escape from the usual constraints of liberal media. You must remain an upright (net) citizen of a democratic and homonationalist society, a subject of a worldwide empire whose borders are marked by terror narratives. After all, your account will still be suspended if you overstep the (often undefined) lines – expressed in the never read but always agreed upon Terms Of Service. In Cairo or in London, in Rome or in New York, the police will still come knocking at your door if, for example, you post indiscreetly about a riot of concrete bodies.

The last part of *The Facebook Aquarium* is dedicated to the 'Freedoms of the web'. The authors find the keys for understanding this virtual 'freedom' between Orwell[10] and Huxley[11] – between the negation of privacy fostered by the Big Brother dystopia and the technological maximization of (passive) pleasure described in *Brave New World*. Control on the web is justified by the fear of terror, the need to defend society from threats to stability: terrorists, subversives, pornographers, and so on.

Back to the Real World

Virtual bodies are intertwined with human (concrete) bodies in multiple ways. What is the relationship between me and my Facebook life? Am I participating in a social action when I 'like' or 'share' a radical group page? What kind of responsibility do I take when my profile leaves a message on another virtual 'wall'? It becomes difficult to untangle the relationships between concrete and virtual bodies. Is the virtual a mirror of the concrete, or vice versa? The dream of chasing freedom and democracy via the internet becomes the urgency to click first, an illusion of acting and presence and witnessing.

If we question the belief that technology deals with neutral data (numbers, frequencies, statistical operations, and so on), then we need to ask about the stories behind the data points. These narratives are created by human beings. Bare data *per se* will not give us freedom (nor will it take our freedom away). It is the narratives that are and can

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9. Words used are based on the title of Bertold Brecht's 1941 play *The Resistible Rise of Arturo Ui*.
10. George Orwell, *Nineteen Eighty-Four: A Novel*, London: Secker & Warburg, 1949.
11. Aldous Huxley, *Brave New World*, London: Chatto & Windus, 1932.

be created with data – what can be called the *mythopoesis* – that are the site of struggle. Big data has taken the place of nature. Indeed, it is obvious that we find more and more religious expressions that refer to data: *informational deluge* is the best-known contemporary mantra. The promise of automated freedom issued from big data leads to forms of technolatry.

The book finishes with a short story: how to make ice cream without using electricity. There is a way to do it by hand, using salt, known to desert dwellers and certain grandmothers. We can create radical social networks, involving concrete and virtual bodies, exchanging and sharing knowledge without being passively dependent on the tools or algorithms of power: technologies cannot save you. We need to build, putting our hands on, technologies shaped by our own needs and desires, to improve and enlarge our autonomy. We cannot enjoy thousands of friends; we deserve better friends (and also enemies). Junk relationships act like junk food, polluting our ecosphere with both physical and cultural effects.

How To: This Text as an Example
Ippolita, including the website http://ippolita.net, does not want to just produce critical theory. The texts are produced in accordance with the way of doing that they advocate. They aim to provide a better understanding of complex phenomena, such as pirate assemblages in social politics, thanks to an interdisciplinary approach. The members work as anthropologists involved in exploring-describing-changing our technological worlds. They practice collaborative writing. It is, of course, easier to write alone, but their way of working tries to be a convivial experimentation in itself. Ippolita wants to produce texts as crossroads among different expertise. The text that you are reading, for example, is the result of the encounter between Tiziana Mancinelli and the crew, a product of an unseen *agencement*.[12]

Co-authoring this text meant translating not just words and ideas but skills and knowledge. Translating (in Italian *trans-ducere*, 'to lead beyond'), making understandable, involves a process of differentiation and dissemination in which nothing could maintain a so-called essence.[13] Thereby betraying, in a sense, the 'purity' of specialist disciplines in order to pursue a better understanding of the relation between human agency and technology. Moreover, co-authoring is a way of building tools for convivial communities,[14] undermining individualism to work jointly on the creation of shared resources. Convivial writings are intended to draw a cartography of present time. The discourse becomes a platform, a common space, a transindividual reservoir for new and unattended individualization.[15]

Ippolita puts the critiques of processes of assimilation into practice, using a copyleft license. Copyleft is both an existing practice of free public access to knowledge, and a move against the publishing industry, which depends on copyright. Avoiding the restrictions imposed by the publishing market is one strategy, amongst many, of resistance to the laws of the market. Some Italian publishers would agree to print the book

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12. See, Gilles Deleuze and Félix Guattari, *Kafka: Pour une littérature mineure*, Paris: Minuit, 1975.
13. See, Jacques Derrida, *La dissemination*, Paris: Le Seuil, 1972.
14. See, Ivan Illich, *Tools for Conviviality*, New York: Harper & Row, 1973.
15. See, Gilbert Simondon, *L'individuation psychique et collective*, Paris: Aubier, 1989.

under a copyleft license with non-commercial creative commons attribution. But none with a major distribution has agreed to leave both the translation and digital rights to the authors. Thus Ippolita released the text as an e-book – one way in which the market rules, as well as the intermediary of a publishing company, can be avoided.

According to Ippolita, this copyleft license protects the text from misappropriation, for example by editors, whilst readers know that the book can be shared. At the same time it is important to keep the copyright on translations. Copyleft means retaining some control over the use of the text. Our knowledge is not serving the system but being used to create an alternative way to live in this society. Above all, copyleft means that copying and diffusing texts is not a criminal offence in opposition to the affirmation of copyright advocates such as DMCA (Digital Millennium Copyright Act, USA, 1998) and EUCD (European Union Copyright Directive, UE, 2001).

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TALKING ABOUT ESCAPE

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**MARIANN HARDEY
AND DAVID BEER**

ESCAPE   SOCIAL   ESCAPING
MEDIA   WITH   SENSE
EVERYDAY   TIME   WORLD
LIFE   CONTENT   HOUSE

Talking about escape is nothing new. In the mid 1960s, to pick one rather famous example, The Animals' song 'We Gotta Get out of This Place' found resonance with a large mainstream audience. In fact, themes of escape are quite common in popular culture. The repertoire of Johnny Cash suggests itself as a case in point. Sometimes the points of escape are literal and material, such as in classic prison escape movies, in other instances they may be about social pressures and oppressive social norms, like in *The Graduate* (1967), *Vanishing Point* (1971), or *Thelma and Louise* (1991). The list continues, and in so doing suggests that talk about escape, rather than escape itself, has been a relatively prominent cultural presence for some time. But, we might ask, what form do such representations of escape take in an increasingly connected and networked social context, where social media have come to be so integral to everyday life?

Over the last few years there have been lots of claims made about the power of social media. For some these media are disruptive of genuine social ties, for others these are a new source of social solidarity and connectivity. Social media are quite polarizing in this regard. It would seem to us though that one of the most prominent outcomes of the integration of social media into everyday life is the new type of social visibility that it creates. They make it possible to see into various aspects of peoples' ordinary and extraordinary experiences. From the very early stages of what was once called Web 2.0 much has been said about the intervention of social media in the relations between the private and the public. These questions were driven by the many applications based on the need to place parts of our private lives in the public domain.[1] This is clearly important, but what we would like to do here is to sidestep some of these well-established debates and instead use the visibility of everyday interactions generated by social media. This visibility, we suggest, along with others, has created some important opportunities for doing very different types of social research.

Talking About Escape on a Large Scale

Social media data listeners or aggregators are software devices that capture social media content that refers to specified search terms. They allow content created by social media participation to be harvested as a kind of by-product data that in turn

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1. David Beer, 'Using Social Media Data Aggregators to do Social Research', *Sociological Research Online* 17.3 (2012), http://www.socresonline.org.uk/17/3/10.html.
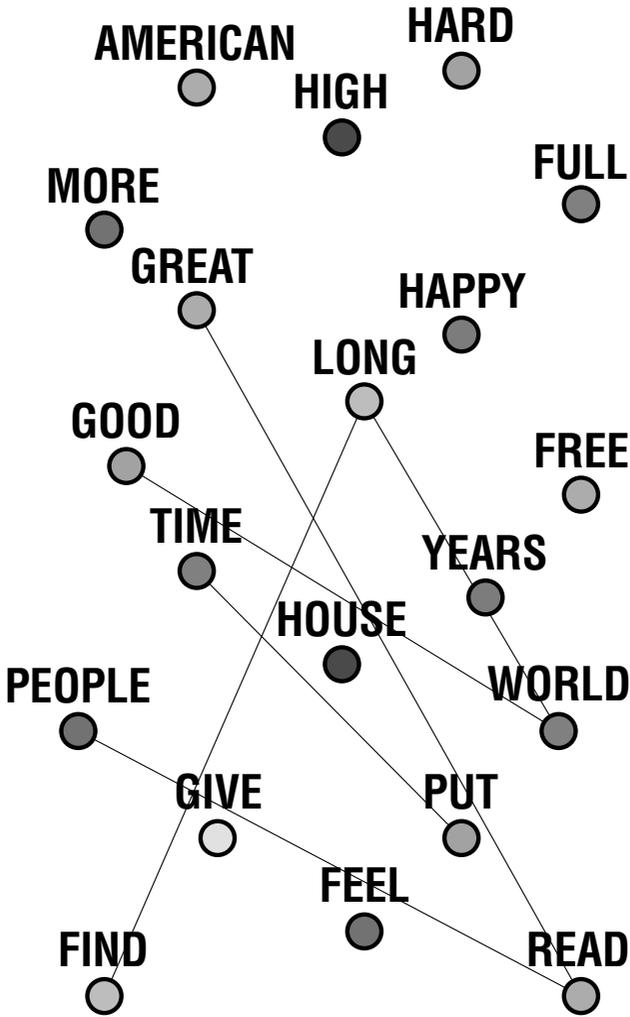
Fig 1. Word map showing words that are commonly associated with escape and escaping in social media content.

can be used for social research.[2] In this instance the software aggregator was created by a company called Insighlytics[3] and was used to search the terms 'escape' and 'escaping'. According to the software developers this device covers,

> a wide range of social and other online media sources. It includes blogs (including Blogger, Wordpress, Typad, and LiveJournal), microblogging sites (Twitter), social networks (public Facebook pages), video sharing sites (YouTube), discussion boards, review sites and online news sources (regional, national and international).[4]

The data we accumulated for this work took place between the 20th of July 2011 and August 26th of the same year – we might of course imagine that the time of year in which we conducted the study might have shaped the content, the outdoor hazy days of summer and the like. The 'buzz graph' generated by the software reports a consistently high level of talk about escape. Most of the days covered included somewhere between 2,000 and 3,000 posts mentioning 'escape' or 'escaping'. Even over this one-month period we have accumulated over 50,000 instances. As well as these quantifying measures, the software also allows us to see the words that are most commonly associated with escape and escaping within this content. Figure 1 shows a word map containing the words commonly associated with escape or escaping. The word map also shows linkages between these words where they have been used in association with one another in content about escape.

The word map reveals some common themes within these frequently associated words, which we can begin to map out. The temporality of escape is apparent here with reference to time, long, and years. Emotional type responses also seem to be developed with words like happy, hard, great, give and feel. There is also the sense of a material territory of escape with the use of terms like house, world, America, full, people, read and possibly high. These visualizations are useful in giving us a general sense of the talk of escape, but they give little sense of the context and detail of this talk. It is to this detail that we now move.

Talking About Escape on a Small Scale

By selecting these common terms it is possible to see that escape is a part of everyday mundane discourse in social media. The volume of content would suggest that the discussion of escape is in itself socially important and takes advantage of what Zappavigna has called '[…] a cultural shift in electronic discourse from online conversation

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2.   We of course encountered some methodological issues in the research for this article. The software used provided the storage for the content that was captured and also facilitated the analysis. This then mixes commercial software with critical social science and opens up issues about storage and questions regarding the function of the a priori analytics performed by the software package. All of the data used in this article, by chance, was extracted from Twitter. Twitter content does not appear to be archived for long periods of time. This software package extracted the data in real-time and stored it so as to overcome this problem. The Twitter API can be used to do this, but it does mean that data extraction cannot really be done retrospectively from Twitter. Finally, it posed questions about how to identify the posters of the content. We have decided in this article to simply include the relevant posts without names so as to avoid problems of gendering the content when gender was not always clear in the content.

3.   For an account of this see Beer, 'Using social media data aggregators to do social research'.

4.   'Product Features', Insighlytics, www.insighlytics.com/ProductFeatures.htm.

to such "searchable talk"'.[5] Embedded as part of this searchable talk, escape is a common topic used in ways that express dissatisfaction, resistance, and transience. It often positions the creator of the utterance as either wishing to escape or is used to express concern about the inescapability of specific and non-specific life factors. Indeed, after the rise of the network society, there has been a push for the organization of modern life to be more connected rather than less connected. Writing about a culture of speed, Tomlinson has noted that '[a]cceleration rather than deceleration has been the constant leitmotiv of cultural modernity'.[6] A reading of Tomlinson offers rich description and reflection on what he describes as the fast pace of modern life. There is, he argues, a decisive move to a cultural imagining of a world organized by genuine and significant shifts in temporality, and this reflects the desire to slip away or to get away from daily life as indicated by the exploration of social media content discussed in the following extracts. We see this connectivity of everyday life coming together with the need to find space within an accelerated and inescapable flow of culture.[7] In short, the act of escape itself is important, but so are the ways in which the practice of or desire to escape are frequently discussed. The desire to remove oneself, or to present the image of a desire to remove oneself from constraining norms, places, and people are prominent in the content. It is possible to read a sense of solidarity into this talk of escape. The term comes to define an activity or a hope that is communicated as a culmination of frustration and annoyance at the oppressive aspects of work, environmental conditions, leisure, and family life. These are frequently expressed through social media. Talking about escape is as much about talking of immobility and inescapability as it is about mobility and cutting free. In the following brief analysis we organize the content by returning to the three overarching themes founds in the word map: temporality, emotionality, and territoriality. In order to identify particular utterances within these themes we simply selected some of the key words from the word map that relate to these three themes to generate a list of postings containing those words.

Talking About the Temporality of Escape

Escape in the context of everyday life is a phenomenon that has strong social aspects, even before the proliferation of social media. It is not surprising then that our first theme refers to the broader sense of movement around escape and the increased pressure upon personal time that is threatened by the expansion of the 'social factory'.[8] We begin then with content that has a temporal dimension and that in some way refers to the intermittence of escape and its possible temporal limits and boundaries. As Cohen and Taylor note, 'interruptions or breaks from paramount reality don't last long'.[9]

Our first extract displays an off-the-cuff and personal reflection:

oh, hahaha. in that case, i'll be escaping that for the next 4 years. it goes both ways

5. Michele Zappavigna, 'Ambient Affiliation: A Linguistic Perspective on Twitter', *New Media & Society* 13.5 (2011): 788-806.
6. John Tomlinson, *The Culture of Speed*, London: Sage, 2007.
7. Scott Lash, *Critique of Information*, London: Sage, 2002.
8. Rosaline Gill and Andy Pratt, 'In the Social Factory? Immaterial Labour, Precariousness and Cultural Work', *Theory, Culture & Society* 25.7-8 (2008): 1-30.
9. Stan Cohen and Laurie Taylor, *Escape Attempts: The Theory and Practice of Resistance to Everyday Life*, London: Routledge, 1992, p. 40.

Escaping in this context conveys the intention of a movement away from, and protection of, the self against what may arise in the anticipated 'next 4 years'. One might derive that the concept of escape points towards the opportunity to be focused on the safeguarding of personal space and the protection of personal time. In a similar tone the following update treats escape as part of a temporal discourse, implying both interest in the personal investment of time and a hidden agenda related to an implied change to everyday life.

> You might get another 30 years out of them, with gentle treatment. Do you have an escape plan?

Both of these extracts are loose in terms of specific context in that neither name particular individuals, places or times. The connection to escape is represented by their temporal movement that is measured in years, and provides the most common and intuitive understanding of each setting. When the above posts refer to years, this reference is in terms of a broader sense of time and opportunity to escape from what can be inferred as the daily 'grind' of life.[10] The experience of escape is at once a personal decision and action. Escaping here is a response that hints at the need to be able to 'manipulate' the 'arrangements'.[11]

This need to escape from some form of discomfort becomes a reflection of the hours of work that constitute this daily grind:

> Being able to escape the competitiveness, the backstabbing and the long hours of the rat race

The 'rat race' reference hints toward affect and the particular circumstances created by precarious forms of labor.[12] Escape occupies different aspects of a temporal spectrum at the same time, as part of a vocational setting and the relationships with others in that setting. Escape offers the authors of the above posts a sense of freedom or being able to get away from it all. Frequently these appear intertwined with various stresses from external demands and pressures.

These pressures are often time-based. For example, the following three extracts show how a sense of escape in various modes is tied to a particular and individual sense of time:

> by the time im 18 im escaping !!!!

> It's time to escape.. If only it was that easy.

> those long long days with no escaping

Escape is fixed in place by a sense of the external regulation of time and age, of the boundaries of the lifecycle. Here the focus is on the association of the sense of impris-

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10. Cohen and Taylor, pp. 66-87.
11. Cohen and Taylor, p. 31.
12. Gill and Pratt, 'In the Social Factory?'

onment and despondency with the improbable aspiration escape can afford. Writing about a liquid modernity, Bauman suggests '[…] one's capacity to escape, to disengage, [is] to "be elsewhere", and the right to decide the speed with which all that is done'.[13] Reading the extracts, the contemporary take is expressed around a narrative of escape that is out of reach both in its formation as much as it is in its expression to others. These three posts present an active discourse that captures a desire to escape, to subvert the context of the present as '[…] those long days'. This discourse treats escape as a sense of lived time formed through a narrative of self-reflection and aspirational future desire. The social condition of escape is revealed to us as an audience amongst an implicit formation of wider narratives about the self and imagined explanations that might involve an 'escape plan', from the 'rat race', 'if only it was that easy'. To consolidate these six extracts there is an expression of escape that is at once without progress and at the same time has hope for a transformation that never comes about. Escape is desired as a moment of departure that is signaled as a separation from the confinement of everyday practices and representations. These escape plans are defined by temporal limitations and boundaries that prevent or enable escape only for a limited timescale. We have introduced only a small number of utterances here, but found that this foregrounding of issues of timing is highly prominent when talking about escape and escape plans, with the prominence of temporality underpinning the remaining themes that we will now discuss.

Talking About the Emotionality of Escape

The distinctive quality of the nature of escape may be presented as a kind of vulnerability in everyday life, one that is related to individual lived experience, senses of connectedness, or a reaction to a prevailing sense of compulsion and self-reflection. This is true both in the context of our second theme and the significance of these mentions communicated via social media. The scrutiny of the self reveals an apparent tension between an increasing dissatisfaction with the immediacy of the everyday and the drive towards the abolition of reality:

> I feel like escaping from reality)):

Escape is channeled as a transformative dimension to produce new delights and experiences. The agenda for such reflective analysis is an emotional and personal one as the two following disclosures make known:

> No matter how much I intoxicate myself, there's no escaping the fact that I'm just not happy.

> Life Skills Master Class Lesson #365: If you dream of escaping everyday, you are not happy.

The metaphor of dreaming is suggestive of the unobtainable nature of escape. This is a reference to escape in terms of a reflection on happiness and the experience of everyday life. There is an emotive quality to these notifications. Due to the nature of the update they provide a different texture to declarations of escape, where there is an as-

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13. Zygmunt Bauman, *Liquid Modernity*, Cambridge: Polity, 2000.

sumed connectedness to others and, perhaps, a painfully felt proximity to the self that is presented by the repeated reference of 'I' and 'you'. One reading of the motivation to update is that the notifications present a way of handing over one's thoughts to others in an informal, conversational and easy manner.

The influential work of George Herbert Mead[14] whose formative theory of the self as a fusion of the singular 'I' with the pluralized 'Me' reflects this very motivation for interaction, by encompassing the social attitudes of others that act as a mirror for individual identity and sense of social self. It is this need to be seen to enter into dialogue with others, with the intention to receive favorable comment or engagement, that reflects an eagerness for escape. It is possible that we are looking here at what Mary Holmes has referred to as the 'emotionalization of reflexivity', the way that emotions are core to reflexive processes of fitting-in in changing social circumstances. Holmes claims that:

> To recognize reflexivity as emotionalized is to see that interpreting one's and other's emotions is increasingly necessary. Being good at emotion work does not automatically bring social success, because emotional reflexivity is not simply a matter of individuals exercising skills. Emotions are done in interaction with others; they involve bodies, thought, talk and action. Feelings make embodied social selves and selves and lives are made within the social constraints of place and time [...] Further work is required [...] to make sense of how and why some people are better able to feel their way in a rapidly changing world.[15]

Holmes suggests that the centrality of emotions in the reflexive process is central to everyday life and needs to be understood in order to reveal these processes and to see how social and cultural change, including the rise of social media, become embodied in everyday interactions, friendships and emotional responses.[16] In this context, escape connects first to ideas that are built on the aspiration for happiness that is influenced by the constant awareness and gaze of others, as well the dissatisfaction with the here and now. The communication of escape becomes part of the reflexive processes of emotionality pointed at by Holmes, the visibility of emotional conduct in social media magnifies and challenges established emotional propriety and etiquette. This association is presented in the following updates:

> I should be happy I'm going on holiday but I feel like I'm escaping the problems here
>
> let me escape from this world.
>
> Don't you just feel like just escaping sometimes?
>
> Yall dont ever feel like escaping your BODY?
>
> i need a great escape

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14. George Herbert Mead, *Mind, Self, and Society*, Charles W. Morris (ed.), Chicago: University of Chicago Press, 1934.
15. Mary Holmes, 'The Emotionalization of Reflexivity', *Sociology* 44.1 (2010), p. 149.
16. Mary Holmes, 'Emotional Reflexivity in Contemporary Friendships: Understanding it Using Elias and Facebook Etiquette', *Sociological Research Online* 16.1 (2011), http://www.socresonline.org.uk/16/1/11.html.

For the authors of these updates, escape cannot in any easy way be contained or achieved. This reveals the relative value attached to escape and the boundaries that confine the individual or regulate what are perceived as free and unfree spaces. There is a physical dimension of the reactions against the pressures of 'the world'. The regulation of the physicality of the body and boundaries of escaping is made plain by the question 'Yall don't ever feel like escaping your BODY?' The first post engages with the implications of the moment of escaping by reflecting '[...] I feel like I'm escaping the problems here'. Published and seen through the funnel of social media such personal thoughts have become part of daily grumbles. These seem mundane but the prominence in the content forces us to reflect upon their social value. By activating such updates individuals selectively externalize a 'letting go' of emotive outcry and reflection.

What is interesting about the classification of these updates is how they pose a constrained version of escape. The following two updates hint at authors' expectations and anticipations of escape:

> I feel like escaping. I think I'm about to do that soon

> I feel like my soul is slowly escaping front the capsule as this lecture goes by

Despite our roles as academics and lecturers, it is hard not to feel sympathy for the creator of the second post (hopefully not one of our students) who attaches an impassive control over their potential to escape from the confines of a lecture – whilst also inferring their position as a bored and distanced participant in the education process. Despite the fact that they are yet to achieve escape, they share an optimistic perspective. While both may be entrapped, these are temporary states and escape forms an important part of the narrative of the snapshot into their situations. The expected consequences of escape keep a reign on both individuals' present state and may be related to some of the chief characteristics of the escaping process. Drawing all these extracts together there is some suggestion of continued states of uncertainty. This is the type of social uncertainty that Holmes has noted is a consequence of changing social, technological and cultural boundaries and practices.[17] The first being a heightened anxiousness that must be escaped from and the second a reaction to the tedious and mundane that can be criticized and explained openly via social media updates. Up to this point, time and emotive reflection have both been constraining factors in these accounts, for our final theme we turn to the sources of confinement and the potential destinations of escape.

Talking About the Territoriality of Escape
The key characteristic of escape talk appears to be associated with how escaping is intrinsically unobtainable, uncertain, and always personal. Given the nature of how the data was extracted through social media, this level of personalization may not be entirely unexpected. It is in these interactions that we get a sense of how material territories are produced and elaborated. And so, in one way, some of the unobtainable dimensions of escape are (albeit temporarily) overcome – at least to the extent that a

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17. Holmes, 'Emotional Reflexivity in Contemporary Friendships'.

shared notification links an individual to others and can be retrieved and read by an external audience. One repeated reference was to the home or place of residence:

> Escaping the madness at my house for a few minutes

> leaves the house escaping the chaos

> heading up to garbo as a means of escaping the house

> Can't wait to get out of this house
> Planning an escape route out of my house

> Getting ready to clean this house up a bit and then escaping to some ac for the day

> Another day of madness and a house full of builders! Looking forward to escaping for lunch with the oldies

> I'm seriously thinking of escaping my house right now. My brain is going to explode

Here the features of the home provide a point from which to escape. This depicts the inverse of Lasch's description of home as a 'haven in a heartless world'[18] in favor of a discourse where a haven is sought in the largely anonymous audience of Twitter followers and Facebook friends and where the domestic territory becomes the thing to be escaped from. As well as the reference to 'the house', these suggest a range of other social concerns that make up the common rhetoric of escape. There are mentions of 'chaos' and 'madness' where their houses appear as a source of disorder that can be distanced from. At the centre of these notifications is the exaggerated detachment from their immediate physical environment. Generalizing from these notifications the house is a source of confinement associated with restrictive movement, in the desire for a '[…] route out of my house'. The constraint of place is telling in terms of discourses about escape, where the physical presence of the building creates a space to be reacted against. In comparison to the discussions of escape formed around temporality and emotive reflection, the above mentions of escape are divided by the physicality of place. The image that is most apparent is that of the house – note the exclusion of 'home' – that grasps at the overarching personal need for escape. Here there is a sense that the notifications and updates in their publicized form allow the authors to vent and live out – as far as is possible – a moment of escape and physical departure from the house.

It would seem that escape is best understood as a process, a movement or form of projected mobility. The following two updates are particularly apt in drawing these issues together:

> Escaping reality. Getting high always feels so much better

> but really, so many shallow kids get drunk or high for no real reason. WHAT ARE YOU ESCAPING FROM?

Narratives built around the escape of reality and influence of drugs and alcohol provide both a real and imagined escaping. The first is looking to alter the terms of reality in

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18. Christopher Lasch, *Haven in a Heartless World: The Family Besieged*, New York: Basic Books, 1977.

escaping by getting high, and the second generates a different reaction to this condition. The terms of the process of escaping are personal, concerning the building up of particular actions, but they often tap into an engagement with broader issues of morality and citizenship. More generally the relationship between reality and the physical confines of space draw out the escaping process.

When we review all of these snapshots of escape there remain limits. Where there exists a contrast in these dialogues it is with the assumptions of effortless moments of escape – such as being able to leave the house or enjoy an altered state of being – against barriers to escaping that effects this condition – such as time constraints and perceived relationships or responsibilities. The territoriality of escape perhaps generates the most social complexity, as it seems to offer genuine moments of escape whilst also presenting the most tangible material boundaries. However, there remains an unknown limit to how often such moments can be created and acted upon. This we might speculate is likely to be closely related to the types of opportunities that are generated by social hierarchies and economic capital.

One reason to pay attention to the overtures of escape and escaping is the observation that our increasingly connected worldviews have created new sets of processes, moments for interaction, skills and limitations – a real-time and visible account of cultural escapism emerges within social media. The indication of a territoriality of escape relates rather subtly to a fixedness that is motivated at an individual level. This is captured in the following notifications:

> Escaping to my room seems like the only option. I planned on going for a lot of long walks this week, but the weather has put an end to that

> Nothing better than escaping to a loft for a quick read and nap

> i like to read because it means that for a few hours you can escape into a world that isn't your own

> Library earlier, got great novel, can hardly put down. Reading more, on internet/surfing less. Nice to escape world turmoil, read a book

> Escaping back to my world of fiction

> Escaping the world for a bit

> Escaping this world for now

One reason to escape is an individual desire to be immersed in '[…] a new world that isn't your own'. There is a pattern of engagement with another world. And so their motivation is channeled by an individual ability to experience the sense of a different physical space. There seems to be two main aspects of progression to a state of escape here. One of these involves the recognition of dissatisfaction with the physicality of 'the world' and changing nature of escape associated with such limits. Another response is the individual delight at being able to – at will – separate the self and to maintain a new state that is constant for the duration of an escape. For example, one Twitter user delights in 'Reading more', which fuels the shared recommendation, '[…] to escape a world of turmoil, read a book'. A reading of Anthony Giddens would suggest that humans have a fundamental need to feel secure and to stabilize themselves

in a 'runaway world'.[19] In one way then forms of escape are used to combat anxieties about the instability of the world that surrounds the individual, or to make a knowing glance towards an awareness of a shared sense of uncertainty and instability. The emerging territoriality of escape provides at least a moment and new space where the individual may feel more settled or secure or where they may find common ground for solidarity to emerge through the inescapability of these territories.

Across many of the tweets is a sense of escape from the mundane and the type of oppressive power of the repetitive routines talked about by Cohen and Taylor.[20] Indeed, the act of tweeting (itself a routine act of repetition!) may represent an act of escape in itself, the content we have focused upon here may be the by-product of an act of escape on the part of the creator. Indeed as Marwick and boyd have argued, there is something of a 'context collapse' where multiple audiences are pulled into single contexts and content reflects the reaction of an imagined reaction.[21] Such collapse also marks a move to the experience of escape as something else that is engaged with someone else – whether a material space, emotion or a moment in time. Indeed, there are hints here that suggest that it is now necessary to signal an escape from Twitter and social media more broadly. For those who manage their sociability and social networks through constant connections and updates, disconnection to reading, for example, requires an explanation. The nature of the speed and ubiquity of social media constitute a new set of social responsibilities and demand a new form of communicative etiquette. We need to reflect upon how the communications of issues of escape are filtered through this etiquette in order to understand more fully what it might reveal.

Conclusion

This text is not directly about the actual practices and strategies of escape found within everyday life. It might point towards these, but rather it is about the way in which escape is talked about in everyday interaction. The extracts that are mentioned in this article might reveal something of the things that people aim to escape from, how they intend to escape, and where to, but what they actually reveal is a widespread and routine discussion of escape and escaping in social media. Our analysis has revolved around three themes, but these should not be thought of as a separate. Rather, we found a close weaving of time, emotions and space within the content we extracted. From our analysis it is apparent that the sense of a need to *get away from things* permeates through all the updates, in some greater or lesser form. Escape and escaping become a topic around which people can interact, it represents a shared motif of everyday life that affords resonance between people and represents a way of communicating the presentation of self across social media – whether as a public expression of private frustration or of the need to present the presence of private frustration. To be part of these flows of information is as important as the content of the updates themselves as these become a way of presenting frustration, cynicism, discomfort, and a desire to express a shared sensibility. By communicating this sense of a need to be elsewhere some shared ground is formed upon which people can

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19. Anthony Giddens, *Runaway World*. London: Routledge, 1990.
20. Cohen and Taylor, *Escape Attempts,* p. 31.
21. Alice E. Marwick and danah boyd, 'I Tweet Honestly, I Tweet Passionately: Twitter Users, Context Collapse, and the Imagined Audience', *New Media & Society* 13.1 (2011): 114-133.

relate in what is often understood as a fragmented, decentered and individualized cultural setting. The volumes of posts on escape illustrate its embeddedness in everyday discourse and its familiarity as a topic. A longer-term inspection of notifications might reveal that escape is actually an established social media topic, a topic that people turn to in order to stimulate interaction or to create content. Far from being an expression of an individualized culture, this is an expression of shared experience. It is particularly interesting that social media becomes an outlet for talk about escape, it may be seen that the constantly switched on pressures created by such media is the very thing that people might wish to escape from.[22]

The constant notifications that are fuelled by social media may represent a futile and modern method to escape or, as Cohen and Taylor put it, 'to get through the day'.[23] These gestures can only ever be fleeting and seem doomed to be absorbed, even lost, in the acceleration and flows of content. Forms of dialogue are driven by personal reflections on happiness, anxieties over personal prospects – be this relationships or careers – and uncertainty over the appropriate actions to take. The outcome we have shown here is a prevalent preoccupation with *the escape of talking about escaping*, matched with the connected sensibility of the self to be in effect 'always on'.[24] There is an irony that in this context defined by the necessity to be constantly switched-on, people are using media as an outlet for talking about escape.

The work here suggests that the type of dialogues about escape outlined are an important part of everyday interaction that may be used to foster a sense of sameness, of shared frustrations, of inescapability, and finally, of the need to get away. Communicating these sentiments appears to be a routine and prominent part of contemporary interaction. Indeed, communicating the sense of a need to escape might be one way of understanding the fostering of contemporary relations in an individualized and fragmented social media culture. Talk of escape is a sure topic for finding common ground where common ground is hard to find. Similarly we might suggest that talk of escape is indicative of the confinement that appears to define everyday life, escape from which might be a fantasy that is being globally disseminated by the everyday archives that constitute recent developments in media infrastructures. Talking about escape, as one instance of the private becoming public, reveals something to us about the connections that are being made in social media.

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22. Zygmunt Bauman, *Liquid Life*, Cambridge: Polity, 2005.
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BOREDOM
ON FACEBOOK
/
D.E. WITTKOWER

EXPERIENCE   BORED   VALUE
EMPTY   OTHERS   BEING
SOCIAL   SHARED   PLAY
MEANING   FRIENDS   EXISTENCE

I come to praise boredom, not to bury it. And boredom, for its part, is far from defeated. Indeed, all the more that we take up arms against it, and seek to surround and overtake it, all the more does it stand before us, quiet, resolute, unmoved.

Much can be said against boredom. Boredom is a listless casting-about for purpose; the drifting existential anguish of one's life experienced as meaningless, even if only temporarily so. It is the feeling that nothing is really worth it, where 'it' may be time or effort, and often a vanishingly small amount of either. But boredom is not depression: it does not claim that nothing is *actually* worth it, or that there is no purpose, only that, at this time, we don't feel that purpose, and don't care to get anything done.

Boredom has a perhaps unexpectedly specific political economic history. We see boredom emerge in Europe alongside industrialization. To some extent, it seems, bourgeois life brings freedom from an experience of purpose along with a freedom from want. The availability of leisure time – at least, in the absence of integration in a communal, village life, with its traditions: dance, craft, song, storytelling, etc. – brings the challenge of finding purpose for the emerging middle class. The empty time which the aristocracy had long before learned to occupy with amusement was brought to the bourgeoisie as an element of luxury, but without the thoroughbreds, hunting lands, and private chefs which made that time luxurious. Free time then becomes a precious commodity, worth more than the paltry amusements available to fill it with – unless, of course, we adopt a hobby: an activity which we engage in as a 'pass-time'/pastime without making any claim of its value (for example, we do not claim that everyone ought to be doing the same as we) or even claiming that others should understand why we find it to be a worthy investment of empty hours.[1]

Reflecting on this problem of leisure, we may look to this striking passage from Arthur Schopenhauer:

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1. As Theodor Adorno said, 'I have no hobby. Not that I am the kind of workaholic, who is incapable of doing anything with his time but applying himself industriously to the required task. But, as far as my activities beyond the bounds of my recognized profession are concerned, I take them all, without exception, very seriously. So much so, that I should be horrified by the very idea that they had anything to do with hobbies – preoccupations with which I had become mindlessly infatuated merely in order to kill the time – had I not become hardened by experience to such examples of this now widespread, barbarous mentality. Making music, listening to music, reading with all my attention, these activities are part and parcel of my life; to call them hobbies would make a mockery of them'. (Theodor Adorno, 'Free Time', in J.M. Bernstein (ed.) *The Culture Industry*, New York: Routledge, 1991, pp. 188–9.)

> That human life must be some kind of mistake is sufficiently proved by the simple
> observation that man is a compound of needs which are hard to satisfy; that their
> satisfaction achieves nothing but a painless condition in which he is only given over
> to boredom; and that boredom is a direct proof that existence is in itself valueless,
> for boredom is nothing other than the sensation of the emptiness of existence. For
> if life, in the desire for which our essence and existence consists, possessed in itself
> a positive value and real content, then would be no such thing as boredom: mere
> existence would fulfill and satisfy us.[2]

Schopenhauer's view of boredom is in need of deconstruction, in a Heideggerian
sense. A short detour to Descartes will be necessary.

In Heidegger's analysis of Descartes in *Being and Time* and 'The Age of the World Pic-
ture', among other places in his writing, Cartesian coordinates give to us a view of emp-
ty space as primary, with the lived experiences of place as a secondary cultural overlay.[3]
The truth is the other way around: it is a cultural artifact, and a foundational moment in
the age of the modern-scientific world picture, where we begin to say that what is meas-
urable is real, and that whatever makes the world most available to mathematics, exact
science, and technological use is what is most real and most true of the world. Much as
Bruno Latour found later in the Salk Institute,[4] here too the result of a sociotechnical pro-
cess is projected backwards as its own origin: posterior to creating a system whereby
all place can be standardized and made available to calculation, the pre-existence of an
empty three-dimensional nothingness is metaphysically projected as having been there
all along, discovered by rather than created by sociotechnical practices.

Similarly, Schopenhauer finds that leisure and freedom from toil and want give way to
a discovery of an underlying boredom, which forms the empty space-time in which
our lives occur. His view implies that boredom has always been the fundamental char-
acter of existence, and if it has not always seemed this way – and it hasn't – then it is
because we have been heretofore too busy and unhappy to notice the quieter back-
ground noise of our essential boredom, revealed in leisure and satisfaction like the
60Hz hum of the lights as we sit in an office, staring blindly wondering what next to do.

As is often the case, Friedrich Nietzsche provides a useful correction and expansion to
Schopenhauer's misdirected brilliance. We turn to the famous §125 of *The Gay Science*:

> The madman jumped into their midst and pierced them with his eyes. "Whither
> is God?" he cried; "I will tell you. *We have killed him*—you and I. All of us are his
> murderers […] What were we doing when we unchained this earth from its sun?
> Whither is it moving now? Whither are we moving? Away from all suns? Are we not
> plunging continually? Backward, sideward, forward, in all directions? Is there still

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2.   Arthur Schopenhauer, 'The Vanity of Existence', in *Essays and Aphorisms*, trans. R.J. Hollingdale,
     New York: Penguin, 2004, pp. 53–4.
3.   Martin Heidegger, 'The Age of the World Picture', in *The Question Concerning Technology and
     Other Essays*, trans. William Lovitt, New York: Harper, 1977; Martin Heidegger, *Being and Time*,
     trans. Joan Stambaugh, New York: State University of New York Press, 1996.
4.   Bruno Latour and Steve Woolgar, *Laboratory Life*, Princeton, NJ: Princeton University Press, 1979.

any up or down? Are we not straying, as through an infinite nothing? Do we not feel the breath of empty space?[5]

God is dead today because god is not God. The centrality of the Church in European society gave way to the marketplace, where this pseudo-Diogenes raises his voice and hoists his lantern. The purposelessness felt in boredom is not a truth underlying existence *per se*, but rather a product of this historical moment, as Lars Svendsen[6] and Elizabeth Goodstein[7] have also argued. It is not the vanity of existence that is revealed in boredom, but the vanity of modernity. It is in modernity's quiet moments when we begin to smell the divine putrefaction, and, through this, the time when the madman can be heard begins to near.

It is to this that I will now turn: the sense in which boredom stands before us as a threat, a challenge, an opportunity. Let me sing now a panegyric to boredom, a hymn of praise to this experience of emptiness – for it is, as Heidegger has argued, a *clearing*.

Here, like Lars Svendsen in *A Philosophy of Boredom*, I follow Heidegger's analysis of boredom in his *Fundamental Concepts of Metaphysics*[8] only up to a certain point, but veer away from metaphysics into practical ethics. I'm not interested, at the moment at least, in boredom as a clearing that gives us an opening to the question of the meaning of being, but rather as a clearing that gives us an opening to the question of our particular being – a clearing from which we can view *Dasein* rather than *Sein*.

Boredom as a dissatisfaction with what lies before us is, as Walter Benjamin has claimed in Convolute D of his *Arcades Project*, 'the threshold to great deeds',[9] which is fundamentally optimistic. It is a seeking out and a moving forward, compelled by the breath of empty space and the stench of the rotting god. Being bored by something motivates a break, a change, and as such a motivation, requires an opening up of possibilities. Boredom-by, in this way, is the clearing away, the emotional negation of the past and the established, which opens a space of innovation.

But we are not only bored-by; we are sometimes gripped by a more fundamental boredom, an objectless boredom in which we are not only bored by what we are doing, but bored by the things we could be doing as well. This too is an opening and a clearing away, and provides a space for open reflection, not in how to reach a goal, but in our values themselves.

We shy away from this existential boredom, and fail to worry that we are losing something of value. With our children, as they become ever busier with school, music lessons, sports, and so forth, we worry that they are losing their interiority and self-direc-

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5. Friedrich Nietzsche, *The Gay Science,* trans. Walter Kaufmann, New York: Vintage, 1974, pp. 181–2.
6. Lars Svendsen, *A Philosophy of Boredom*, trans. John Irons, London: Reaktion, 2005.
7. Elizabeth Goodstein, *Experience Without Qualities*, Stanford: Stanford University Press, 2005.
8. Martin Heidegger, *The Fundamental Concepts of Metaphysics*, trans. William McNeill and Nicholas Walker, Bloomington, IL: Indiana University Press, 1995.
9. Walter Benjamin, *The Arcades Project*, trans. Howard Eiland and Kevin McLaughlin, Cambridge, MA: Harvard University Press, 1999, p. 105.

tion, since they are never confronted by free time. Similarly, we worry that with toys that dictate certain forms of play, and which come pre-packaged with their own narratives, our children are losing capacities for imagination, creativity, and story-telling, better supported by childhoods running through forests and parks, playing with sticks and cardboard boxes. Should we not worry that adults stand to suffer similar losses through the devaluation of, and attempt to, eliminate boredom?

I hasten to say, though, that tedium, circumstantially necessary and unavoidable boredom, is not such an opening, and deserves no praise. Those who are bored by the necessary steps of continuing forth, and have no other options – those working multiple jobs just to get by day-to-day, who are denied creative opportunities, and have few alternatives – to them boredom is a pain unredeemed in the absence of the opening of alternatives.

Boredom that disguises itself from itself is also not deserving of praise. The 'entertainment' taken in watching whatever happens to be on television, for example, is a form of boredom that calls itself pleasure, and in this deception allows empty experience to persist without being impelled toward questioning and reconsideration. Sometimes it is admittedly desirable to shut off the brain and stare blankly at something that does not occupy the mind, but this form of boredom that hides from itself does not present the virtues of boredom to us.

Being bored along with others, however, is a process of creating meaning when it does not collapse into boredom in disguise. Watching television with others, for example, may be as empty as watching alone. But it can also be an occasion for snide comments, heckling, and conversation; far more creative and active forms of doing nothing in particular.

Being actively bored along with others is, in fact, a primary source of meaning in our lives. We find it important to take time to sit around with friends, go to lunch, out for drinks, or just waste time together. This is not because there is anything terribly important about the content of this time. It is not important because we speak of anything important; usually we do not. It is certainly not important because we are eating an important sandwich. It is meaningful because it is a space free of purpose, of needs, of ends, and therefore a space where collaborative creativity in *creating* meaning can be practiced. Whether anything of value comes out of that practice is not only beside the point, it is even *against* the point.

These meaningful moments of boredom-alongside are meaningful because they are stretches of time devoid of meaning, in which means have no end and therefore cannot be means, in which we are given free play in the creation of meaning and value on our own terms. Just as in Kant's aesthetic theory from his *Critique of Judgment*,[10] disinterestedness is a precondition of the perception of beauty, which is our enjoyment of the free play of understanding and imagination. Similarly, boredom is a precondition (though not a necessary one) of 'hanging out' and 'quality time', which are constituted by our enjoyment of the collaborative free play of our ability to determine our own values and define meaningfulness in our lives. Boredom is our experience of the greatest

10.   Immanuel Kant, *Critique of Judgment*, trans. Werner Pluhar, Indianapolis: Hackett, 1987.

weight, to invoke Nietzsche once more: the burden of modernity in the experience of our lives as without purpose. But it is also the gateway to the greatest possibility of modernity (that we should create meaning along with others) and we find being bored along with others to be meaningful because it gives us the experience of doing so.

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It has taken us quite some time to get to the second part of the topic of this text, and I'm sure I have tried your patience. (Perhaps you have become bored?) But here we reach it. Having outlined the value, meaning, and meaningfulness of boredom of certain kinds, I can finally make the claim that one of the great successes of Facebook is the way in which it allows us to be bored together.

To be sure, there are ways of being bored on Facebook that are not deserving of praise, just as there are unpraiseworthy forms of boredom in our lives offline. Just as we may flee from boredom into mindless entertainment through the empty gaze of watching whatever happens to be on television, so too may we mindlessly occupy our time in *Farmville* or other antisocial forms of 'social games'.[11] But Facebook games may also be engaged in as a social activity among friends. Like watching something along with friends may be made into a social activity through heckling and conversation, so too may the pastime of gaming – perhaps *Words with Friends* or *Draw Something* may be better examples here than *Farmville* – be made into a social experience and a convivial way of filling empty time.

A more insidious form of fleeing boredom into entertainment is the approach to the friend feed, which seeks distraction and approaches friends as mere content providers rather than friends. Here, our boredom is treated as an isolated fact: we say 'I'm bored', and approach the friend feed as a source of unengaged entertainment. We might call this 'friendertainment'.

By contrast, we look often enough at the feed not as a source of distraction and friendertainment, but as a great crowd of friends and family engaged in conversations which we are implicitly or explicitly invited to join. Here, the value of boredom emerges, and emerges in a way well supported by the communications structures and affordances of the Facebook platform.

The conglomeration of large portions of our offline and online social graphs in a single location ensures that, when we find ourselves bored, we can easily find others we care about who are also bored and seeking to start conversations, share experiences, and play. Aimless navigation to a single site opens up a wealth of opportunities for sociality, without having to determine in advance whether, for example, we might wish to be bored along with others by getting into an argument, sharing common views, hearing about their kids, or watching something together. The simple practice of, as we say in American English, 'shooting the shit', need not wait for a leisurely afternoon appointment for coffee or beers, but may be taken up at any given moment when we are waiting for the beans to finish cooking, folding the laundry, standing on queue, or avoiding something tedious but 'important'.

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11. See for example, Elizabeth Losh, 'With Friends Like These, Who Needs Enemies?', in D.E. Wittkower (ed.) *Facebook and Philosophy*, Chicago: Open Court, 2010, pp. 33-48.

Facebook also provides for collaboratively interpreted shared media experiences as a social practice of boredom and the play of meaning creation. When we share a music video, a cat video, a picture of a baby otter, or any other audiovisual content, we are making two implicit statements: first, that we have watched and enjoyed this, and second, that we are inviting others to view and experience this as if alongside us. When we watch something that someone else has shared, we watch it with the imagined co-presence of our friend alongside us; we imagine her reactions, and look out for the content's merits informed by our knowledge of her taste and sense of humor. As I have argued elsewhere,[12] the result is best understood not as merely watching some content or other, but as an asynchronous shared experience at a distance, for the value we find in it inheres at least as closely to our friendship as it does with enjoyment of the content for its own sake, especially when the posting is accompanied by commentary and interpretation, and when we follow up on the threaded-commentary format of the posting by engaging in discussion and banter.

Although this is more commonly done on Twitter, Facebook is also used for ongoing synchronous commentary on shared experiences at a distance; for example, posting status updates about or live-tweeting a prominent political speech or popular television program. In a recent example, many users produced a collaborative live commentary and discussion for the Summer Olympics, resulting in a social backchannel to otherwise isolated media consumption, and producing numerous spoilers for those watching events with a time-delayed broadcast.

OH, YOU'RE A CANDY MAKER WHO LIVES WITH SHORT, ORANGE MEN AND NEVER GOES OUTSIDE?

PLEASE SHARE WITH ME YOUR CRITICISMS ON THE NUANCES OF MODERN SOCIETY

Author unknown. Retrieved from http://knowyourmeme.com/photos/233301-condescending-wonka.
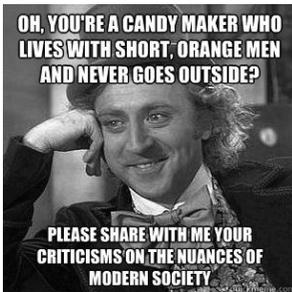
In many cases, though, the shared experience at a distance is online-native. Alongside discussion, debate, and advice-seeking, we engage in memetic play, sharing lolcats, political images, humor, and simple silliness. 'Meaningless' play in meaning-creation abounds on Facebook, and spins off into systems of communicative elements which persist apart from any reference or importance outside of themselves. Ceiling cat and the Lolrus have their own narratives, open to and robust enough to support playful interaction within those narratives themselves, as in the crowd-authored Lolcat bible, as well as being ported out into commentary and interpretation of life outside of these memetic spaces. 'Condescending Wonka' has taken on a distinctive role in political argumentation; 'Y U NO Guy' allows a playful way of voicing frustration and criticism.

Facebook not only provides these various affordances for performing the active boredom that gives us an experience of free-play in value creation, but also provides a touchstone which supports carrying over the practice of active boredom into our lives outside of Facebook. The online détournement of 'websurfing' is transformed from a reception of content to a series of potentially shared experiences. The ready sharability

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12. D.E. Wittkower, 'Friend is a Verb', *APA Newsletter on Philosophy and Computers* 12.1 (Fall 2012): n.p.

of new media, along with Facebook's constant background presence (either figuratively or literally – in a background window), results in a social reading and viewing of material. As we wander around online, we find our friends' interests engaged along with our own, and take note not only of those things which we find engaging, but also those things that others will value, care about, or be angered by. We need not regard this as a mere illusion of sociality, but an ideation of social experience that is often enough realized through subsequent sharing and asynchronous shared experiences.

In our offline lives as well, living with Facebook in the background produces an active boredom wherein we narrate our experiences to ourselves, and see them as already occurring in the context of a future retroactive sociality and shared process of interpretation and reflection. The future gaze of the absent friend transforms our current empty time into a prospective experience of boredom-alongside, allowing us to find our current boredom not as empty time under the tedious meaningless of which we suffer, but as time wasted along with others: leisure well but purposelessly spent.

Author unknown. Retrieved from http://memegenerator.net/instance/23997416.

We can see a kind of performative confirmation of these claims in the much-derided practice of photographing pictures of your lunch. As discussed before, it is a natural thing to ask your friend what they're getting as you sit together looking through a menu, and to ask how her lunch is as you eat. Yet this does not have to do with any inherent value in this particular sandwich, nor is it (for the most part) self-interested angling for an offer to taste it. We ask because we care for our friend, and desire an experience of closeness; her experience of the dish is of interest because we desire to share lunch, and information of the inner experiences of our friend is a part of the shared event.

The impulse to take a picture of your lunch and post it to Facebook or Twitter only makes sense when we view this as an invitation to participate in a shared asynchronous experience at a distance. The picture of the sandwich is not self-important or narcissistic. The picture of the sandwich is an invitation to have lunch together.

These ways in which Facebook supports a kind of active boredom-alongside play a significant and unobvious role in Facebook's success. This role is unobvious, for the most part, because boredom is undervalued and misunderstood, hence the need for such a large portion of this chapter to be devoted to a rehabilitation of boredom. Nonetheless, as little as we might understand and consciously value boredom, boredom plays a large role in our lives, and the provision of affordances for valuable forms of boredom has a significant impact on the user experience, and on the value that users obtain through the platform. This is not diminished by the user's unawareness of the importance of boredom; boredom is still something we engage in, and seek to engage in well.

As we look to understand Facebook's success, we should not ignore boredom. And as we look to what alternatives may effectively replace the social and individual functions of Facebook, we certainly cannot ignore Facebook's role as a platform for both friendertainment and active boredom of a praiseworthy sort.

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HOW TO BUILD A MAP FOR NOTHING: IMMATERIAL LABOR AND LOCATION-BASED SOCIAL NETWORKING

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LEIGHTON EVANS

USERS INFORMATION LBSN
FOURSQUARE PLACES LOCATION
DATABASE PLACE TECHNOLOGY
MAP COMMODITY MEDIA LABOR

In April 2011, I happened to find myself in the beautiful city of York, Northern England, on a Wednesday evening, ready to deliver a paper to a conference the next morning. While there is much to admire in York – beautiful architecture, plentiful culture and wonderful scenery – I had only one objective in mind. On this evening, I wanted to watch Manchester United play Chelsea in the quarterfinals of the Champions League. I support neither team – and downright loathe Chelsea – but I really wanted to watch the match: I wanted to watch it in a bar, with other football supporters, with cheap beer and plentiful screens to see the action. In the past, this would have involved the tiresome seeking out of bars in the city, walking from place to place and possibly missing the action. On this evening though, I missed nothing and found the perfect place, and I achieved this in seconds with the use of my iPhone and the application Foursquare: I hit the Foursquare app button; pulled up the list of places near to my location in the center of York; started going through the venues to find bars, and read the comments and tips left by other customers; and found a nice place with student discounts for beer and lots of screens. The game was a routine 1-0 win for Manchester United, but the bar was great, a hidden gem in York, and found by utilizing the power of smartphone technology and the social tips left by other likeminded people. I used the check-ins and comments of other users, stored in a database, to make decisions about somewhere I didn't know anything about, and when I checked-in there and left a comment – 'a great place to watch football and great offers on beer!' – I contributed to this database and map of places as well. This is the world of location-based social networking (LBSN), a map of places created by users: what is called a 'bottom-up' system, where users create the information rather than being given the information from above in a 'top-down' system. This type of mapping has been incredibly useful to me, but it poses a very important question: what happens to the data I produce for the LBSN?

Location-based services (LBS) are the fastest growing sector in web technology business.[1] These services, be they LBSN, satellite navigation devices in cars or augmented reality browsers as applications on mobile phones, open up questions about the awareness of location and engagement with location for users. McCullough[2] argues that LBS are a channel or means of obtaining hyper-specialized information, in that the information reaching users is now about where they are, rather than decontextualized

1.   Gordon Eric and Adriana de Souza e Silva, *Net Locality: Why Location Matters in a Networked World*, Chichester: Wiley-Blackwell, 2011, p. 9.
2.   Malcolm McCullough, 'On the Urbanism of Locative Media', *Places* 18.2 (2006), p. 26.

information with no relevance to the location of the user. Research on LBS[3] has concentrated on the relationship between technology use and physical spaces,[4] discussions of power and politics in LBS,[5] discussions on the representations of space that LBS provide,[6] and privacy and the implications of revealing location (who would have known what bar I watched the game in, and how important could that be?).[7] Here I will discuss an aspect of the power and politics of using LBSN, regarding how they create 'places': how the users of LBSN are contributing to a huge database of places that provides unique information on places.

The bar I found on Foursquare was not there by luck or accident; a user created that 'place' on the map of Foursquare, and other users checked-in there and left tips and advice that I eventually acted upon to watch the match. The use of Foursquare creates a data trail of check-ins, tips and data entries that builds a giant resource for the application, and for other applications to use through the use of application programming interface (API) resources: on where users go, what they do when they get there and with whom they share that information. The importance and implications of the use of immaterial labor in constructing these giant databases of places, and what this may represent in terms of political and economic power calls for investigation. In short, what are the consequences of 'checking-in' to a place on Foursquare from the perspective of what that is worth for the application and company itself: how important or valuable was my check-in to the bar on that evening? At first glance, one would think not at all, but the argument being expanded here is very simple: the users of free LBSN are creating valuable digital resources for free because the process of mapping has been turned from top-down (created by governments and organizations) to bottom-up (created by us, the users), and because of this the users are becoming a commodity in themselves.

What is New Cartography? From Top-down to Bottom-up Mapping
The development of LBSN, and the development of user-generated databases of places, needs to be thought of within the context of historical map-making and mapping processes if the full implications of the switch to user-generated mapping are to be appre-

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3. Rowan Wilken, 'Locative Media: From Specialized Preoccupation to Mainstream Fascination', *Convergence* 18 (2012), p. 243.

4. Alice Crawford and Gerrard Goggin, 'Geomobile Web: Locative Technologies and Mobile Media', *Australian Journal of Communication* 36.1 (2009): 97–109; Adriana de Souza e Silva and Jordan Frith*, 'Locative Mobile Social Networks: Mapping Communication and Location in Urban Spaces, Mobilities* 5.4 (2010): 485–505; Adriana de Souza e Silva and Daniel M. Sutko*, 'Theorizing Locative Media Through Philosophies of the Virtual', Communication Theory* 21.1 (2011): 23–42.

5. Greg Elmer, 'Locative Networking: Finding and Being Found', *Aether: The Journal of Media Geography* 5A (March, 2010): 18–26.

6. Alison Gazzard, 'Location, Location, Location: Collecting Space and Place in Mobile Media', *Convergence: The International Journal of Research into New Media Technologies* 17.4 (2011): 405–417; Sophia Drakopoulou, 'A Moment of Experimentation', *Aether: The Journal of Media Geography* 5A (March, 2010): 63–76.

7. Gerald Friedland and Robin Sommer, 'Cybercasing the Joint: On the Privacy Implications of Geotagging', in proceedings of Fifth USENIX Workshop on Hot Topics in Security (HotSec10), Washington, D.C, 10 August 2010, http://static.usenix.org/publications/login/2010-12/openpdfs/HotSec10Reports.pdf; M.G. Michael and Katina Michael, 'Uberveillance: Microchipping People and the Assault on Privacy', University of Wollongong Faculty of Informatics, 2009, http://ro.uow.edu.au/infopapers/711.

ciated. Cartography has been described as a purely top-down activity[8] where power is exercised through the creation of maps as political artefacts. Top-down refers to powers at the 'top' of a society, like governments or people in positions of importance, transferring knowledge, ideas and ideologies 'down' onto the members of a society. Persons in positions of political and military power historically have controlled the creation of maps; for example the history of the Ordnance Survey (OS) in the UK is one of military and political power.[9] In practice, this means that maps have never just represented the territory they cover, but also represent political and ideological aspects of society too: just think of a map of Europe, with all the borders carefully and accurately drawn to represent not just the physical dimensions of the countries, but also to differentiate them as distinct entities that have different political, historical and social dimensions. Another example of this is the mapping of areas in dispute around the world, like Kashmir (disputed by Pakistan and India), that are mapped differently by different sides of a dispute. Cartographers are affected by the ideological and cultural influences placed upon them in their role in society, and as such, there emerges a need to acknowledge that maps generate specific territorial knowledge, or what Olsson calls cartographic reason.[10] Cartographic reason can be linked to Foucault's notion of biopolitics[11] and the political production of knowledge: the top-down position of cartographers means the maps they produce are products of the state, which exist to normalize concepts of territory and power for those subjects under the power of a particular state. This also normalizes power relations between different states. Korzybski famously wrote that 'the map is not the territory',[12] and this tells us that the map is only a representation of territory, and as a representation its character is to order or re-engineer the territory in line with dominant ideologies in a state. This means that the places on maps are not as important as the political or ideological influence of the map.

Moving on historically and developed from traditional cartography through the utilization of modern satellite and computational technology, Global Positioning Systems (GPS) technology locates an individual or object within the range of the technology by pinpointing their position on Earth through communication between a GPS enabled device and a network of 24 satellites known as the Global Positioning System.[13] GPS represents a different paradigm in locational representation, no longer purely graphical, but now precise and relational to other entities based on the spatial co-ordinates of latitude, longitude and altitude which GPS technology uses to locate the device or individual. GPS technology had its developmental roots in, and is still dependent upon, military technology; but the development of GPS (and in particular the development

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8.   Jeremy Crampton, *Mapping Without a Net: The Politics, Sovereignty and Ontology of Cartography*, proceedings of the 24th international Cartographic Conference, Santiago, Chile, 2009, http://icaci. org/files/documents/ICC2009/html/nonref/27_6.pdf.

9.   Richard Oliver, *Ordnance Survey Maps: A Concise Guide for Historians,* London: The Charles Close Society for the Study of the Ordnance Survey, 2005, p. 10.

10.   Gunnar Olsson, *Abysmal: A Critique of Cartographic Reason,* Chicago: Chicago University Press, 2007.

11.   Michel Foucault, *The History of Sexuality Volume 1: The Will to Knowledge*, London: Penguin, 1998, p. 140.

12.   Alfred Korzybski, 'A Non-Aristotelian System and its Necessity for Rigour in Mathematics and Physics', in Alfred Korzybski, *Science and Sanity: An Introduction to Non-Aristotelian Systems and General Semantics*, Forest Hills, NY: Institute of General Semantics, 1995 (1933), p. 747.

13.   Robert Nelson, *The Global Positioning System: A National Resource*, Riva, Maryland: Applied Technology Institute, 1999. See also, http://www.aticourses.com/global_positioning_system.htm.

of commercial applications of GPS for the civilian market) has also led to a new kind of information source on location, which has developed directly from innovations in commercial GPS devices. GPS devices like those in car GPS units require a database of places and geographical features to operate a functional user interface. The databases used in GPS devices are proprietary ones, owned and controlled by the hardware manufacturers, or created by software companies and licensed by the hardware manufacturer. Either way, the system is closed; the user cannot alter the software or more importantly add to the software and so it is still decidedly top-down.

This kind of closed system is in contrast to neo-geographical[14] software programs that have emerged in the last few years, like openstreetmap which allows user-created content to build layers of information into maps. There has also been the development of a series of user-created databases that are the product of interactive geospatial tagging applications for mobile platforms such as the iPhone. These applications or LBSN – Foursquare, Gowalla, Brightkite and Rummble being popular examples – build databases of places by users creating 'spots' and 'checking-in' at these spots. These mapping systems that build in user-generated information into maps to create new, dynamic maps are not 'top-down', they are 'bottom-up': everyday users, not people in power or governments, add the information to the map and so the information is built from the 'bottom' of society, not the ideologies of society's 'top'.

When using LBSN, users are rewarded in points-based systems for the creation of spots and for checking-in to spots, and from this a game environment is created where users are encouraged to compete with friends for high scores over periods of time. Users are also rewarded with badges and titles for check-ins and creating spots. Foursquare, for example, conveys the status of 'mayor' on users who have the most check-ins at a spot. Users can leave comments about spots they check-in at and photographs of the place, and as many of these spots are services like restaurants or shops, this can be seen as a form of free advertising or user-review of the service. When I looked for a bar in York, I was relying on the work of others before me to make that information and guide me in the unfamiliar place I was in: their check-ins and tips helped me familiarize myself with the city and make my choice. By checking-in to a place, a list of nearby venues and other places is automatically generated, providing the user with further information on their location and their relative position to other places and services. The database of places of a LBSN is built using user-generated content (be that geo-tagged places, comments or recommendations) and as such the database grows and develops as a function of the use and popularity of the LBSN.[15]

This shift in production is significant. In a top-down system the database is a created, closed interface, without the facility for user contribution or editing. In a bottom-up system, the users of the application (over 10 million in the case of Foursquare in March of 2011, up from 1 million in March 2010) create the information held in the database. This open form of database is contingent on users, where some areas can be expected to have many spots and others none, based on the relative facilities available and

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14. Crampton, *Mapping Without a Net*.
15. Foursquare make this database of places freely available to programmers and application developers through the Foursquare API.

technological limitations (such as 3G coverage). These databases are also developing in isolation to one another as it can be expected that the more users that use an application, the more valuable to advertisers the database will become. When a user creates a place on Foursquare there is clearly not a top-down power relationship in the cartography. The creation of a gazetteer or database entry is both down to the users of the network (and therefore distributed rather than concentrated in the hands of a cartographer) and is immediately turned over to the network as a bottom-up (i.e. users creating the database rather than being 'given' the information) form of activity. The map is not a static representation of the territory: the user can add to the map, and change the character of the gazetteers that have already been left on that map. The method of creation and the role of the user have been changed with the role of the map itself. Maps were representations of territory, but with the right computational device maps are something with which we can navigate the world socially and add to, in order to aid others that aim to navigate that physical space.

The Political Economy of LBSN – How Much is My Check-in Worth?

There is clearly a possibility, within the design and functionality of the applications that use GPS technology to build a database of places, that LBSN can be utilized by businesses and organizations as a means of advertising in a very labor-free way. Businesses do not need to create their own entry on the database (although they can do this if they feel necessary), rather a user will do this for them through creating a spot and checking-in to that spot.[16] If a spot is created for a restaurant a drinks manufacturer could directly advertise to a user within that restaurant that has checked-in there, or an offer on a meal could be made by the restaurant itself (a possibility already being exploited on Foursquare). More importantly, the database collects information on individual users – where they visit, when they visit that place and what they do there if the user contributes a comment to the check-in – which is invaluable demographic information, and information that could be used for targeted advertising of the individual in the same way Facebook or Google collects data on usage to sell to advertisers.

To understand what the implications of this bottom-up, user-generated mapping are and how it relates to economics we can focus on Marx's view of how technology affects the mechanics and dynamics of capitalism. Marx explicitly discussed the role of machinery in capitalism in *Das Kapital*, beginning with the observation that the radical change of production in one sphere is mirrored in others.[17] The LBSN and smartphone has radically altered the production of maps, from top-down to bottom-up, but this transformation is mirrored in the users. The user or audience is transformed by the LBSN and digital technology from an audience (or consumers) to a commodity.

Marx makes the role of machinery explicit: machinery 'increases productivity without increasing the value of labour'.[18] Technology serves the purpose of increasing produc-

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16. Christian Fuchs positions this free labor in the context of a political economy of social networking, arguing that this kind of production is a transformation of everyday practices and entertainment choices into commodities to be sold for the commercial benefit of social networking companies.
17. Karl Marx, *Capital: A Critique of Political Economy, Vol. 3,* Reissue edition, London: Penguin Classics, 1993, p. 236.
18. Marx, *Capital,* p. 239.

tion (and therefore increasing revenue) while stabilizing (or possibly reducing) the value of labor involved in the production of the commodity. When thinking of the production of a material product, this analysis is quite simple: consider a hammer. In a pre-industrialized society, a craftsman may produce one hammer per day, and the cost of this hammer would be linked to the labor of the craftsman in a linear manner with the cost representing the amount of labor put into the creation of the hammer. As the mechanization of industrial processes takes place, the creation of the hammer is taken away from the craftsman, and instead is produced by a machine. For argument's sake, let's suggest this machine now produces one hundred hammers in the time it took the craftsman to create one hammer. The price of the hammer falls, but not accordingly. There would not be a one hundred fold collapse in the price of the hammer, but again for argument's sake take it that the fall in price is 50%. Therefore, the sale of two hammers from the stock of 100 produced would account for the labor costs of the craftsman per day, and there are still 98 hammers left to sell at profit! The machinery is creating a surplus value, and that surplus value is embodied in the mass of products that have been produced, that is the hammers.[19] The machinery is involved in transferring the value of the product to the product itself and away from the labor that was used to produce it, as the labor cost of producing hammers using the machine are less than the labor cost of the craftsman. The craftsman, or any laborer, is left to operate or oversee the machinery producing hammers rather than create them with the machinery not just changing the means of production but also the world of labor and employment.

The notions of surplus value embodied in the products of production may not at first appear to be applicable to LBSN, but there is a very important connection between the use of LBSN by users and the product (data) that is like the relationship between the laborer and the production of hammers. This link is provided by Dallas Smythe, who outlines the transformation of audiences from viewers to commodities to be traded in the marketplace like any other commodity[20] (just like hammers). Smythe states that there is (as Marx would say) a material base of work, which people must do in monopoly capitalism (accepting that this is the state that we find ourselves in economically and socially). [21] This base of work is not confined to work itself, but also involves buying and consuming goods, and the work done by the audiences of the mass media in watching, engaging with the texts, and buying the products that are advertised alongside or within the texts, therefore supporting the economic base of society through work done.

The principle product of the mass media must be something that can be sold, a commodity that would allow for the realization of the two main functions of the mass media to be realized in market activity. Smythe states that the principle product of the mass media (in monopoly capitalism) is audience power, and that this is the commodity that is produced, sold, purchased, and consumed. Literally, the audience itself is sold, to advertisers as a group to be targeted for the selling of products. As such, it has a price like any other commodity that can be used in this way would have. In effect, the audience is being sold on the basis that it has 'labour power' like any other labor.[22] The buy-

19. Marx, *Capital,* p. 231.
20. Dallas Smythe, 'On the Audience Commodity and its Work', *Media and Cultural Studies: Keyworks,* New York: Blackwell, 2006, pp. 230-56.
21. Smythe, On the Audience Commodity and its Work', p. 254.
22. Smythe, On the Audience Commodity and its Work', p. 257.

ers of this labor (advertisers) are in effect buying the attention of potential customers. Smythe does point out that audiences are not the homogenized swamp of buyers that this analysis might seem to be suggesting that they are, but that they are all produced by the mass media and sold in markets to advertisers.

Christian Fuchs largely adopts Smythe's view of the audience commodity in his analysis of online communications and social networks and their impact within monopoly capitalism, [23] and it is this analysis that is most important when thinking about what happens to user data when we use LBSN. Fuchs' analysis identifies commoditized internet spaces that are always profit orientated (even if the goods are not tied to an exchange value or market orientated in themselves) such as Facebook, Foursquare or YouTube. In these cases, free content is used to drive up visitor numbers so that high advertising rates can be charged to achieve profits: my activity on social networks (which always produces data of some kind) can be packaged and sold to advertisers, based on my preferences and patterns of usage. Benkler calls this a 'networked informational economy' that has effectively displaced the industrial economy and society.[24] This development has led to an economics of information, where traditionally non-market commodities can now be commoditized. Knowledge, information, locations (like my check-in to the bar, and the check-ins all the other users did before me that helped me decide to go to the bar) are all now commodities.

Fuchs' analysis can be summarized as an identification of two forces at work when we use free social networking services: commoditization and individualization (which revolves around personal freedom, freedom of access to resources and information and freedom of movement in the network). This idea of commoditization and individualization is very useful when we think about the bottom-up mapping that smartphone technology and LBSN such as Foursquare has allowed. When I check-in somewhere, I am sharing my location with others and allowing others to access and comment upon my location (or locate me there if they wish!). At the same time, I am creating data through my 'work' for Foursquare that can be sold as a commodity: the technology that allows me to express my location and become a neo-cartographer is also the technology that stores and collates my data to make it accessible and therefore a commodity to be sold. We can use the freely available facilities on the internet (individualization), but in doing so we are giving labor to others for free (commoditization), so that they may accumulate capital. The 'gift' economy (and the sites and applications that embody this economy) is a specific form of the audience commodity in that the accumulation strategies employed by users such as adding friends, making comments and checking-in to places constitutes an audience commodity that is sold to advertisers. There is a radical difference compared to the audience commodity with old media (such as television) in that audiences are not just in the role of audience, but also content producer. User-generated content, community building and communication are the fundamental product of social networking sites, and this content is provided by the user that is also the audience sold by the platform to advertisers. LBSN are no different; the creation of places, commenting on places and checking into places are actions that create infor-

23. Christian Fuchs, 'A Contribution to the Critique of the Political Economy of the Internet', *European Journal of Communication 24*.1 (2008): 69-87.
24. Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom*, New Haven: Yale University Press, 2006, p. 3.

mation, which in this information economy is a commodity to be marketed and sold. Fuchs' term for the consumer and producer is 'prosumer'[25] and it is this entity that ultimately is the commodity in the 'gift' economy. The advent of personalized advertising on social networking platforms is a move to Deleuze's 'society of control' where individuals must integrate and continually participate in structures that exploit them.[26]

The Commoditization of Making a Map – Why a Check-in is Worth Something

It should now be clear that the bottom-up mapping applications like Foursquare have two sides: a creative, individual side where we make places and find out about places from others' activity, and a commercial side where our data can be marketed to companies for specific advertising based on our activities. The game element of Foursquare is critical for this, remember that users are rewarded for the creation of locations within the game structure of the application. Gamification is the use of game mechanics and game-thinking to solve problems and engage audiences,[27] and Bogost[28] has argued that gamification is an exploitative marketing technique designed to capitalize on a cultural moment. The ideological argument is that LBSN providers like Foursquare entice users through the game aspect of the application, and then collect and collate the location information provided by users (and the comments and discourses that they enter into on those places) as a commodity to be sold to advertisers. While the LBSN is free to use, it generates (or will generate) income through offering detailed information to advertisers, who can target specific individuals based on where and when those people visit places. This ideology that explains the rationale for allowing and promoting user-generated content in maps is clearly capitalist, motivated by the desire for accurate and specific targets for product advertising. The conclusion that is logically drawn from the argument is that the gamification model of LBSN actively commoditizes both user and place, as such reducing both user and place to a resource to be sold.

It is interesting to note that Foursquare's own application is now moving away from a game/database creation model, into a navigation model that aims to add value to user experiences through the use of the application in the world. This has been achieved through the addition of an 'explore' function in the application architecture.[29] The gamification aspect therefore seems to be waning, as the 'work' of constructing the database itself is now at a stage where such an explore feature is possible to implement, and can be useful to users. The design of applications that build gamification into their data collection procedures should be viewed critically in terms of political economy, but there is a catch-22 in making such a recommendation, as getting users to take up the service in the first place does require a feature that will draw them in, and undoubtedly in the case of Foursquare the gamification model was critical to this initial use of

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25. Fuchs, 'A Contribution to the Critique of the Political Economy of the Internet', p. 82.
26. Christian Fuchs, *Internet and Society: Social Theory in the Information Age (Routledge Research in Information Technology and Society)*, New York: Routledge, 2008, p. 149.
27. Gabe Zichermann and Christopher Cunningham, *Gamification by Design: Implementing Game Mechanics in Web and Mobile Apps,* Sebastopol, CA: O'Reilly Media, 2011, p. ii.
28. Ian Bogost, 'Gamification is Bullshit', Ian Bogost blog, 8 August 2011, http://www.bogost.com/blog/gamification_is_bullshit.shtml.
29. 'Anywhere in the World, Foursquare Explore can Find You Something Interesting', Foursquare blog, 12 January 2012, http://blog.foursquare.com/2012/01/12/anywhere-in-the-world-foursquare-explore-can-find-you-something-interesting-now-on-your-computer/.

the application.[30] Since February 2012, new mobile software services, such as Glancee (recently purchased by Facebook) and Highlight, have indicated that the sharing of social experience rather than gamification of location is becoming the important aspect of LBSN for future development. Both applications are built upon the Foursquare API, and are based around matching people in nearby areas with relevant interests and check-in histories to users of Foursquare. The presence of the immaterial labor that created the database in the first instance looms large on these applications, despite their rejection of that form of database building.

There are positives and negatives to the use of immaterial labor through gamification in building a LBSN as Foursquare has done. The product is undoubtedly rich, useful and can be appositive for users. If you doubt this, hit the 'explore' button in a new place (if you use the application) and you can find a wealth of social gazetteers that can help you navigate the unfamiliar territory in a way that a traditional map never could. The traditional map can tell you where places are, but not what they are like, or how others have used, experienced, enjoyed or hated them. This certainly helped me in my desire to get a cheap (but nice) beer in York to watch the Champions League quarterfinal. However, also be aware if you 'check-in' to a place, what happens to your action: data produced, stored, aggregated, and waiting on a database possibly to be leveraged in the future for commercial gain. The new cartography of LBSN gives and takes, but the eventual result of this new mapping and sharing of social gazetteers is not yet apparent to us: 'checking-in' and sharing location could be the best way to sell you something yet. While we benefit from LBSN, the LBSN also benefits from commoditizing users – and this is indicative of the new information economy.

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30. Arguably the gamification model, with the eye-catching increases in user numbers that may be attributed to the novelty of the game model during 2010 and 2011, was a major factor in attracting large capital investment in the company. This includes a $50 million investment in June 2011 that valued the company at the time at $600 million, on the basis of the high value of the then 10 million users (Sarah Lacy, 'Foursquare Closes $50M at a $600M Valuation', Techcrunch, 24 June 2011, http://techcrunch.com/2011/06/24/foursquare-closes-50m-at-a-600m-valuation).

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NONE OF YOUR BUSINESS?:
ANALYZING THE LEGITIMACY
AND EFFECTS OF GENDERING SOCIAL
SPACES THROUGH SYSTEM DESIGN

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ANDREW MCNICOL

GENDER   FACEBOOK   GOOGLE
USERS   SEX   SOCIAL   FIELD
SYSTEM   INFORMATION   DIASPORA
PROFILE   STATUS   NAME   MEDIA

How we relate to or speak about a sub-atomic particle may not change how that particle behaves, but referring and relating to a person in a certain way undoubtedly determines that person's being.[1]

Social media profiles serve as public declarations of who we are. By publicizing and omitting details or bending the truth about ourselves we perform our complex identities in these spaces. Responding to our understanding of the social environment we aim to influence the impressions of others through our method of expression. As in all spaces, though in digital spaces especially, there are various restrictions imposed on us, both via technical barriers (coded limitations) and social influences (e.g. pressure to participate and awareness of the repercussions of our actions), diminishing the flexibility of our identity performance. We can be who we want to be, but only as long as it falls within the boundaries set and influenced by the system.

Furthermore, because these social media profiles act as a mediator between us and others, the more value we ascribe to these public faces of our complex selves the more likely we are to internalize the identity restrictions set by the system. The extent to which a Facebook profile serves as a person's main professional and social contact point correlates with the level of importance this profile plays in influencing their public perception. The recognition of this phenomenon prompts us to internalize the content of our social media profiles, to an extent corresponding to the perceived importance we attribute to them. The limitations on identity performance enforced by these systems have the power to influence how we understand ourselves – and everyone else using the system. Whether it be through limited options for representative fields, requirements of user information declaration, or the choices made regarding how to display user information to others, even the smallest of design decisions within our collectively adopted social media systems can have major ramifications for framing social communication and for how individual users and the community as a whole exist.

Of course, restrictions are unavoidable and those that do exist may be easily justified. It is simply important when designing a system of any kind to consider and address unexpected social consequences of all design choices. This is especially crucial in the design of social media platforms, systems that have been given the responsibility of facilitating much of our online social interaction.

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1. Claire Colebrook, *Gender*, London: Palgrave MacMillan, 2004, p. 14.

The Usefulness of Exploring Gender and Sex Limitation

In some situations the justification for requesting or requiring disclosure of gender or sex information can appear questionable, or present a largely one-sided benefit to the system at the expense of its users. Additionally, the difficulties of transcribing something as complex as gender and sex into limited categories – often binary fields – highlight broader issues of limited representation social media profile systems can introduce.

Throughout this text I use the word 'sex' to describe a person's biological status of being 'male', 'female' or – affecting roughly 1 in every 100 people according to The Intersex Society of North America[2] – something that does not fit neatly within these two, more common possibilities. 'Gender', on the other hand, refers here to the person's inward sense of place in relation to social gendered roles, often materializing in the form of 'masculine' or 'feminine' gender. Sex and gender do not always correlate – not all 'males' are 'masculine', for example, and many other gendered words are regularly used, describing a clear deviation from more common gender terminology – and the vast complexity of these two terms have proven difficult to transcribe into digital environments. However, the way sex and gender are integrated within a system can contextually redefine their meaning, influencing how these terms are understood within that environment. For example, Facebook routinely uses the words sex and gender interchangeably and only allows for a binary representation of both[3], reinforcing a limited understanding of these complex terms that persists in some communities. Conversely, Diaspora prompts users to write their gender in a text field, allowing for more freedom of expression, promoting an act of self-questioning and facilitating a healthy environment for identity performance.

In addition to issues relating to accuracy and empowering users, there are situations where the chosen method of including sex or gender status can lead to the exclusion of particular demographics who would not feel comfortable or safe within such an environment. In this way, social media system design can reinforce or create groups of marginalization, making this an important discussion related to issues of equal access and freedom of expression.

There is a difficult tension between designing social media systems with limited user categorization for perceived practical benefits, such as searchability and advertising, and granting users greater freedom of identity performance. It becomes interesting to see how the four services this essay focuses on address this tension differently.

Mandatory Declarations

When signing up for a Facebook account you must enter your first name, your last name, your email address, a password, your sex, and your date of birth[4]. To use Google+ you first need a Google account which requires you to enter your name (which must

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2. 'How Common Is Intersex?', Intersex Society of North America, http://www.isna.org/faq/frequency.
3. When discussing services that use these terms interchangeably, like Facebook does, I will specifically state 'gender *or* sex' or 'gender *and* sex' depending on the circumstances.
4. Except where specified otherwise, all descriptions of system and interface details listed in this paper are correct as of 16 August 2012.

consist of both a 'first' and a 'last' name), a chosen username and password, your date of birth, your gender, and your location. These fields are all mandatory and, apart from the passwords for both services and the Google username, they ask for existing personal data from the prospective user.

In contrast to this, the only existing personal data Twitter and Diaspora[5] require from new users is an email address. Twitter and Diaspora both prompt users for a full name, but this does not have to be correlate with the user's legal name. Various justifications are given for requiring personal information. Email addresses, for example, are important in all four of these services for communicating notifications to users that they have subscribed to, and to assist with managing their account. The reasons for other personal information requests are perhaps less apparent.

Legislation, both local and global, and concerns over user safety can influence the user content collected by social media services. On Google's inclusion of birth date in the account sign up process, blogger Alex Chitu remarks, 'Google's page for creating a new account is famous for only requiring your email address and your country, so it's strange to see that users from the United States have to enter their birthdays'.[6] Google began requesting a birth date from users, Chitu explains, so it can comply with the (U.S.) Federal Trade Commission's Children's Online Privacy Protection Act (COPPA) which 'applies to the online collection of personal information from children under 13'.[7] Initially, Google only required birth dates from U.S. citizens, but this was extended to all locations in 2011.[8]

Additionally, data collection is regularly framed as being valuable to the user. Having obtained birth date information, Google began recommending users publicize this to their friends who may then set birthday reminders. Similarly, the 'Introduction' text field on Google+ Profiles, if blank, prompts the user to 'Put a little about yourself here so people know they've found the correct [user's first name]'. Detailed personalization is framed in these examples as building trusted connections and stronger, more meaningful interactions with your friends, family, and other acquaintances.

The Facebook blog is more assertive in 2010 when it states '[c]ertain information is visible to everyone because it's essential to helping people find and connect with you on Facebook: your name, profile picture, gender and networks'.[9] And in July 2008, when Facebook requested their users declare their sex status if they hadn't already (it wasn't always mandatory), it sent the following message to those who had not yet selected either 'female' or 'male':

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5. All descriptions of Diaspora interfaces relate to those found on the hosted server (called a 'pod') at diasp.org. It is possible that other pods may vary slightly.
6. Alex Chitu, 'Creating a Google Account Requires to Enter Your Birthday in the US', Google Operating System, 28 April 2010, http://googlesystem.blogspot.com.au/2010/04/creating-google-account-requires-to.html.
7. 'COPPA - Children's Online Privacy Protection Act', http://www.coppa.org/comply.htm.
8. Alex Chitu, 'Creating a Google Account Requires to Enter Your Birthday', Google Operating System, 26 august 2011, http://googlesystem.blogspot.com.au/2011/08/creating-google-account-requires-to.html.
9. Ana Muller, 'Understanding Your Privacy Controls on Facebook', The Facebook Blog, 27 May 2010, http://blog.facebook.com/blog.php?post=394231632130.

Which example applies to you?
Right now your Mini-Feed may be confusing.
Please choose how we should refer to you.
* [user-first-name] edited *her* profile.
* [user-first-name] edited *his* profile.[10]

Choosing a set of gendered pronouns here would influence gendered language used throughout the system, but it would also set the user's sex status to 'female' or 'male' depending on the corresponding selection.

Such examples, framed as enhancing the user experience, can be of benefit to both the user and the system. However, in the case of Facebook above, there is only a dubious link between the benefits of sex declaration and visible gendered pronouns, and sex being the mandatory field *required* for participation it has become. Sex is just one of many profile fields that may help to confirm another user is the 'long-lost high school friend' you're looking for, but it has been highlighted as an integral part of user identification within this environment by its mandatory status.

Facebook's stance is that it is reasonable to require that new users declare their biological sex, to divulge 'what's in their pants', in order to qualify to use a system that connects them to their existing social network. Others may question whether such mandatory declarations are appropriate.

Enforced Authenticity
Under the 'Registration and Account Security' section of Facebook's terms, the first commitment listed is that users will not provide any false personal information on Facebook.[11] Users must participate, then, using their real name and fill out any profile fields truthfully. Such restrictions relate to a belief held by Facebook's Mark Zuckerberg and Google's Eric Schmidt, among others, that allowing something other than real identities online will have negative effects on the broader community.

Facebook's principles page opens by stating, '[w]e are building Facebook to make the world more open and transparent, which we believe will create greater understanding and connection'.[12] Zuckerberg takes this further, believing that using a single, 'real' identity across multiple services makes you more authentic and 'having two identities is an example of a lack of integrity'.[13] Similarly, Schmidt, responding to concerns over real names policies on Google+, has stated 'the Internet would be better if we had an accurate notion that you were a real person as opposed to a dog, or a fake person, or a spammer or what have you'.[14] Many, such as 4chan founder Chris Poole who has

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10. httf, 'Facebook's Gender Blunder', Token Attempt, 10 July 2008, http://httf.livejournal.com/43728. html. Emphasis in original.

11. 'Statement of Rights and Responsibilities', Facebook, 8 June 2012, http://www.facebook.com/legal/terms.

12. 'Facebook Principles', Facebook, http://www.facebook.com/principles.php.

13. 'Facebook and "Radical Transparency" (a Rant)', *apophenia*, 14 May 2010, http://www.zephoria.org/thoughts/archives/2010/05/14/facebook-and-radical-transparency-a-rant.html.

14. Andy Carvin, 'Andy Carvin', Google+, 30 August 2011, https://plus.google.com/117378076401635777570/posts/CjM2MPKocQP.

actively spoken out about the benefits of anonymity,[15] have disputed the legitimacy of claims that authenticity facilitates a better social environment, but Facebook and Google+ continue to argue that the internet operates best when everyone uses their real credentials and these companies have decided they would only allow people to use their system who they believe are engaging in this way.

Not everyone is aware of these restrictions when creating an account, but they are casually enforced. In 2011, for example, Chinese commentator Michael Anti's Facebook account was closed because it was said to be operating under a pseudonym. In this case, 'Michael Anti' was an English name adopted during high school, a standard practice in China, used 'for dealings with foreigners'. Anti '[did] not understand why he [had] been singled out when many more Facebook users are not using their legal names, but suspects someone reported him'.[16] Similarly, many Google+ profiles have been suspended for violating Google's policy of using real names.[17] Users risk similar suspension if they are reported by another user for violating this, or if some algorithmic system flag is raised.[18]

Authenticity in Google+ and Facebook is enforced through technical means (restricting access), and as more users become aware of the risks they are pressured to conform to the rules. Many still use fake names, but one single claim against their real authenticity – be it about their name or anything else on their profile – by a political enemy or someone playing a prank is all that's needed to potentially have their profile marked for suspension. There exists a diverse demographic – described in the *Geek Feminism Wiki* article 'Who is harmed by a "Real Names" policy?'[19] – who don't feel safe declaring an accurate looking name, sex, or gender in social media spaces. Because accurate declarations of these fields have been made a requirement for participation these groups become the most likely to be turned away or removed from the system altogether, making participation within such social media environments difficult for the already marginalized.

Gender Salience and Marginalization
Whether we're required to declare our sex or gender on social media systems (such as Facebook and Google+) or if we're given more flexibility as to what we divulge (as is the case with Diaspora and Twitter) the prominence of such information can have subtle but significant consequences.

In *Delusions of Gender*, Cordelia Fine writes, 'When gender is salient in the environment, or we categorise someone as male or female, gender stereotypes are automatically primed'. Additionally, 'we might also perceive our own selves through the lens of

15. Aleks Krotoski, '4chan Founder Chris Poole on Web Anonymity', *Tech Weekly* podcast, 17 April 2012, http://www.guardian.co.uk/technology/audio/2012/apr/17/tech-weekly-podcast-anonymity-4chan.
16. Tania Branigan, 'Facebook's "Real Name" Policy Attacked by Chinese Blogger', *The Guardian*, 9 March 2011, http://www.guardian.co.uk/world/2011/mar/09/chinese-blogger-mark-zuckerberg-dog.
17. Tim Carmody, 'Google+ Identity Crisis: What's at Stake With Real Names and Privacy', *Wired*, 26 July 2011, http://www.wired.com/business/2011/07/google-plus-user-names/.
18. Saurabh Sharma, 'Saurabh Sharma', Google+, 18 August 2011, https://plus.google.com/109179785755319022525/posts/YcvRKqJeiZi.
19. 'Who Is Harmed by a "Real Names" Policy?', *Geek Feminism Wiki*, 2012, http://geekfeminism.wikia.com/wiki/Who_is_harmed_by_a_%22Real_Names%22_policy%3F.

an activated stereotype'.[20] To give an example, Fine outlines one study on American university students that looked at the self-assessments of math and verbal skills. Participants were asked to complete a form listing demographic details beforehand – some were asked to declare their gender, others their ethnicity. Women for whom gender was primed 'felt more confident about their verbal skills when gender was salient […] and rated their maths ability lower, compared with when [ethnicity was primed]'.[21]

When gender is 'primed' in social spaces, we are more likely to judge our own abilities as being close to what we perceive to be the 'activated' stereotype relating to that context. These stereotypes are internalized and we are led to perform in accordance with them. Such influences can be seen in what has been called 'impostor syndrome' which, as occurs regularly in the case of women in the tech industry, manifests itself in the form of '[s]elf-doubt and overeager self-criticism'.[22] In this and other cases, gender salience can affect participation, often negatively, and it does this disproportionately.

In an official page explaining their privacy options, Facebook states 'if you choose to hide your gender, it only hides it on your timeline. This is because we, just like the applications you and your friends use, need to use your gender to refer to you properly on the site'.[23] Until recently, the effects of this could be seen on user profile pages you don't have access to view; even if the user has chosen to hide their sex or gender status from their profile, the system would still use gender pronouns to refer to them, such as the following notice: 'Anne only shares some information with everyone. If you know Anne, add *her* as a friend or send *her* a message'.[24] Furthermore, if the user had not uploaded a profile image, Facebook's default, gendered silhouette would also be visible. Interestingly, Facebook appears to have stopped using some or all of its gendered phrasing since 2011. A recent version of the message above removes all gendered pronouns, stating simply 'Anne only shares some information publicly'. However, default, gendered profile images are still visible if users have not uploaded an alternative.

Similarly, when Google+ was still in its early test phase, it prevented users from hiding their gender status from Google Profiles and also used gendered phrases to refer to all users, even though this appears to conflict with its privacy policy from the time.[25] In these cases the system itself imposed a minimum level of prominence of gender and sex status for all users. This was a conscious choice, said to be because it was important for finding users and facilitating friendly language.

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20. Cordelia Fine, *Delusions of Gender: The Real Science Behind Sex Differences*, NSW: Allen & Unwin, 2010, p. 7.
21. Fine, *Delusions of Gender*, p. 9.
22. John Gold, 'Gmail Engineer: Women in Tech Must Overcome the Impostor Syndrome', *Computer World UK*, 14 June 2012, http://www.computerworlduk.com/news/it-business/3364125/gmail-engineer-women-in-tech-must-overcome-impostor-syndrome/.
23. 'Data Use Policy - Sharing and Finding You on Facebook', http://www.facebook.com/about/privacy/your-info-on-fb.
24. Emphasis added.
25. The policy stated '[i]n order to use Google+, you need to have a public Google Profile visible to the world, which *at a minimum* includes the name you chose for the profile' [emphasis added] – at a minimum it also included gender. ('Google+ Privacy Policy', Google, 28 June 2011, http://www.google.com/intl/en-US/+/policy/).

Google+'s policy of allowing only real names on its service sparked what has been termed the 'nymwars'. Many were unhappy because, for users like Michael Anti on Facebook and others who have or regularly use non-standard names, the system was making it difficult for them to participate legitimately. Others, however, were against Google+'s real names policy because of safety concerns. danah boyd writes,

> The people who most heavily rely on pseudonyms in online spaces are those who are most marginalized by systems of power. "Real names" policies aren't empowering; they're an authoritarian assertion of power over vulnerable people.[26]

More specifically relating to gender salience, blogger s.e. smith states,

> Many of the people using pseudonyms are women, again, because women are at increased risk of harassment online and have good reason to want to conceal identifying information that could end with someone showing up at their door.[27]

This highlights the issue that enforcing real names has the effect of, at least in the case of many common names, informing the user's sex or gender status. In a related study from 2006, it was discovered that chat users with female sounding names received '25 times more malicious messages'.[28] It's not just the prominence of the gender status field and gendered language that informs gender salience and reception; enforced real names influence this, too.

In response to questions about why Google is enforcing a real name policy if such practice could put some people at risk, Eric Schmidt stated, 'Google+ is completely optional [...] if you don't want to use it, you don't have to'.[29] Responding to this sentiment, Jon Pincus has written,

> Whenever somebody says something like "no reason G+ needs to be for everyone" what I hear is "no reason G+ needs to be for women, LGBTQs, people with disabilities, activists, whistleblowers, teachers, etc. etc." Because, y'know, why would anybody want those people in our search results?[30]

The more popular these services become the more individuals lose by not participating. Facebook's default page when not logged in recently stated, 'Facebook helps you connect and share with *the people in your life*',[31] so by excluding ourselves from Facebook we are cutting ourselves off, to some degree, from our existing social group. We don't often pay money to use social media, but experience shows us that one of

26. danah boyd, '"Real Names" Policies Are an Abuse of Power', *apophenia*, 4 August 2011, http://www.zephoria.org/thoughts/archives/2011/08/04/real-names.html.

27. s.e. smith, 'Tiger Beatdown › The Google+ Nymwars: Where Identity and Capitalism Collide', *Tiger Beatdown*, 3 August 2011, http://tigerbeatdown.com/2011/08/03/the-google-nymwars-where-identity-and-capitalism-collide/.

28. 'Female-Name Chat Users Get 25 Times More Malicious Messages', *Phys.org*, 9 May 2006, http://phys.org/news66401288.html.

29. Carvin, 'Andy Carvin'.

30. Jon Pincus, 'Liminal States : A Tale of Two Searches: Google+ and Diversity, Part 4', *Liminal states*, 16 August 2011, http://www.talesfromthe.net/jon/?p=2976. Emphasis in original.

31. Emphasis added.

the hidden costs of using a social platform that makes gender salient is the unequal amount of harassment or unwanted attention different gender and sex demographics will receive – and this can be a deal breaker for many, further marginalizing them within the broader community.

Binary Fields and 'the Grammar Justification'
Facebook and Google+[32] have chosen to adopt a strict binary understanding of gender and sex status in their systems. Despite the concerns regarding marginalization and safety introduced above, there exist legitimate, practical justifications for using binary fields for sex or gender status in these spaces.

After receiving user feedback regarding the 'always public' gender field on Google+, visible on user profiles and in gendered pronouns used by the system during the initial 'limited field trial', Google Product Manager Frances Haugen made an announcement that gender would now be able to be made private. This announcement also discussed the technical issues related to avoiding gendered pronouns on a social service:

> One of the major things we use gender information for on Google+ is for picking pronouns – her, his, their – when we refer to you. Google is committed to building products that people all over the world can use, and in some languages gender is much more deeply part of how sentences are formed than in, say, English.

> Having gender information helps to make Google+ more conversational. If you de-cide to make your gender private on Google+, we'll use gender-neutral language to describe you whenever someone else encounters gender-related information about you but doesn't have permission to see your gender. For example, instead of saying 'Greg added you to his circles' or 'Frances added you to her circles', we'll say 'Greg added you to *their* circles' or 'Frances added you to *their* circles'. Yes, I know this is grammatically questionable. You don't need to message me about it. But we valued helping people control their privacy as being much more important than being gram-matically perfectly.[33]

Facebook stated a similar justification in 2008 when it began requesting users select one of two possible sex statuses:

> [W]e've gotten feedback from translators and users in other countries that transla-tions wind up being too confusing when people have not specified a sex on their profiles. People who haven't selected what sex they are frequently get defaulted to the wrong sex entirely in Mini-Feed stories.

> For this reason, we've decided to request that all Facebook users fill out this in-formation on their profile. If you haven't yet selected a sex, you will probably see a

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32. Though Google+ profiles offer a third, 'other' field for gender status, this is *in relation to* the feminine/masculine gender binary. Such profiles display the same gender non-specific pronouns as profiles with hidden gender. For these reasons I choose here to refer to Google+ Profiles as implementing a binary understanding of gender.
33. Frances Haugen, 'Frances Haugen', Google+, 13 July 2011, https://plus.google.com/106792630639449031994/posts/5kt9TpEb77m. Emphasis in original.

prompt to choose whether you want to be referred to as "him" or "her" in the coming weeks.[34]

There is a difference in the way these systems give users control over the gendering of their persona within these social spaces, but they publicize similar, grammar-based justifications for their adherence to a binary gender field.

One clear concern relating to the use of a limited binary for gender or sex is the way these terms are used interchangeably by the systems, demonstrating a confusion of what is being recorded and how this may appear to others. To begin with, the words 'female' and 'male' relate to a person's sex; they are not gendered terms like they are presented in Google+ – 'feminine' and 'masculine' would be correct in this context.

The practice of using gender and sex interchangeably can also be seen regularly on Facebook. Most notably 'female' and 'male' are used (correctly) as terms for the sex field, but then these are used to inform the *gendered* language relating to the user. Complicating this further, when viewing the site using the language 'English (US)' user profiles have a 'Sex' field, but if the language is changed to 'English (UK)' these instances of 'Sex' change to 'Gender'. This has led some users to change their language setting because they're more comfortable stating their gender in their profile than their biological sex.[35] However, anyone looking at their profile using the 'English (US)' language setting will still see this gender declaration as a sex status.

For those who do not have a gender and sex that neatly correspond to each other, and that fit within the simple binary divide, this means that it can become unclear what they are declaring and how this performance can be interpreted by viewers. Furthermore, because of this interchangeability, no one can express their sex or gender identity accurately on Facebook unless they believe, just as Facebook has asserted, gender and sex are binary and exactly same thing.[36]

Another common justification for requesting sex or gender status in profiles occurs within dating sites, as such details relate closely to the main activity of the site. However, these also remain severely limited. When creating an account on okcupid.com, for example, users are given the choice between a binary gender and one of three possible orientations – 'straight', 'gay' or 'bisexual'. On eharmony.com you can only be a man or a woman seeking only men or only women. Users who don't neatly fit into these categories may spend time filling out their profiles to provide more detail about their situation, but as the matching algorithms utilized by such sites focus heavily on the responses to these fields, it becomes much harder for them to find, or be found by, desirable matches.

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34. Naomi Gleit, 'He/She/They: Grammar and Facebook', The Facebook Blog, 26 June 2008, http://blog.facebook.com/blog.php?post=21089187130.
35. Hadassah D.G. Chayim, 'I most definitely want this […]', Facebook comment, 10 December 2010, 9:52 AM, http://www.facebook.com/groups/2262428561/permalink/10150519727238562/.
36. Any declaration of 'female' on Facebook, for example, becomes equivalent to 'not male', which would not be accurate if the individual believes in deviations from the limited binary definition imposed on the environment.

There have been various campaigns against the Facebook binary, both within[37] and outside the system,[38] and others have publicly protested the practices by closing their account.[39] Others still have responded in more creative ways to help highlight how limited such fields can be even for the average user.[40] Regardless, it doesn't appear likely that Facebook will give users more flexibility with their gender declaration.

A common critique to restricting and requiring such information is that of course Facebook and Google, large corporations aiming to make a profit from their free services, would want accurate information about you because that makes advertising a more successful, financially viable revenue stream. However likely this sentiment is, the public faces of these businesses choose to focus on issues of transparency and how it facilitates better communities, in the case of authenticity, and clear communication, in the case of grammar. Even if they genuinely care about users, they do clearly gain financially from enforced authenticity and limited representation.

However, it remains questionable whether the limitations both systems place on gender and sex expression is in fact an optimal model for advertising. Facebook allows advertisers to target specific users based on various demographics. It explains that 'narrowing down your audience will ensure your ad is shown to the most relevant people'[41] while severely limiting the demographics advertisers can choose to target by only offering a gender/sex binary. For sex or gender status, advertisers can only choose between 'All', 'Men', and 'Women'. For some products and services at least, allowing for more gender/sex diversity would greatly help improve advertising targeting.

Othering Fields
One of the benefits of Google+ Profiles providing the gender option 'other' is one of privacy and safety; it allowed users to hide their status as male or female during the limited field trial when gender was always public. One of the stated justifications for making it possible to hide gender was to address these privacy concerns, as such publication can influence harassment or general discomfort about gendered spaces. As of mid July 2011 all users can select 'female' or 'male' and be confident that they can control who sees this information. They may still wish to choose and publicize their gender as 'other', though such a phrase suggests this may be less of an 'I opt out of disclosing my gender' choice and more of a 'my gender doesn't fall within the other two options' one.

For those who don't identify as part of the gender binary and are not comfortable with the gendered language within the service, the 'other' field allows for such a declaration

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37. See for example the Facebook group, Expand Gender Options on Facebook Petition, http://www. facebook.com/groups/2262428561/.
38. See for example the allout.org petition, 'FACEBOOK: Stop Forcing Your Users Into Hiding', http://www.allout.org/facebook.
39. See for example, Emil Protalinski, 'Facebook Doesn't Add Third Sex, Gay Activist Disables Account', *ZDNet,* 30 March 2012, http://www.zdnet.com/blog/facebook/facebook-doesnt-add-third-sex-gay-activist-disables-account/11167.
40. For example see, 'Yay Genderform!', *yaygender.net*, 2010 http://www.yaygender.net/pages/gender.pl.
41. 'Do I Have to Use All of the Targeting Options?', Facebook, http://www.facebook.com/help/?faq=228888570460131#Do-I-have-to-use-all-of-the-targeting-options?

– albeit to a very limited extent – of this divergence. However, some potential effects relating to the implementation of an 'other' field are important to raise.

In a post discussing the 'other' field as an option for those who want to hide their gender status before Google allowed them to make it private, Randall Munroe writes: 'There are quite a few people who are accurately described by an "other" option, and when they're sometimes struggling for recognition, co-opting their label for anyone who doesn't want to broadcast their gender seems a little off-putting'.[42] The concern here is that using an existing term for increasing user safety or playful gender performance could be insulting for those who have adopted the word after going through a lot to recognize their own gender complexity. This is perhaps an issue with all identity performance terminology, but in this case its potential exists because the system limits gender performance into broad categories. Though Munroe's concern is valid, the various reasons for choosing 'other' would likely be accepted by this group who already have experience not wanting to be referred to in relation to a gender binary.

Perhaps the most worrying effect of an 'other' field is that it facilitates an environment of *othering* through utilizing a categorization system and terminology that casually suggests a demarcation between normal and abnormal. Blogger and developer Sarah Dopp agrees, stating '"Other" is a poor choice for a third option. Why? Because gender-nonconforming people are *othered* enough as it is'.[43] Though there are three options, one is framed in opposition to the common male/female binary and therefore suggests a hierarchy of those who fit and those who don't – the latter of which are all lumped together using a single vague term. This is especially problematic for those who already feel their gender identity is largely delegitimized in wider society. They become socially marginalized, even if they are allowed to participate.

As discussed previously, Google+ uses gender status to inform gendered pronouns it uses throughout its system, and gender was initially public by default at least in part because the alternative, they said, is the presence of awkward grammar. It's important to have a professional looking interface in order to help facilitate immersive social communication, but furthering dependence on the use of masculine and feminine gendered pronouns while allowing a non-gendered alternative that may sound weird to some Google+ users has created an environment where those users who choose to hide their gender or select the 'other' option for any reason are presented by the system differently – as awkward others who choose not to use gendered pronouns.

The use of gender-neutral terminology and phrasing may not be that much of a problem for most, but it is important to note that there are other alternatives proposed for systems, like Google+, that want to incorporate gendered pronouns. One possibility is to, rather than request a person's gender, directly ask what gendered pronouns they would like to have used in reference to them. Explaining such a proposal, Jessica Motherwell McFarlane writes, 'English speakers are well aware of English pronoun lan-

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42. Randall Munroe, 'Randall Munroe', Google+, 8 July 2011, https://plus.google.com/111588569124648292310/posts/SeBqgN9Zoiu.
43. Sarah Dopp, 'Designing a Better Drop-Down Menu for Gender', *Dopp Juice*, 5 February 2010, http://www.sarahdopp.com/blog/2010/designing-a-better-drop-down-menu-for-gender/. Emphasis in original.

guage limitations, so why not give a choice to your clients about how they would like to be addressed?' An example list of options that could be presented reads:

> What pronoun may we use when referring to or writing about you?
> [ ] she, her, hers
> [ ] he, him, his
> [ ] they, them, theirs
> [ ] Alternate through the above
> [ ] Always use my name and avoid pronouns when talking about me[44]

A possible addition to such a list could be giving users the ability to write in their own pronouns.[45] Though potentially making such systems more complex for the user – there is more work involved than selecting from a list of just two or three options – where gendered language is the main or only concern such alternatives could present a practical replacement for the common, limited drop-down box.

On the other hand, it may be possible to remove gendered language from the system altogether. Facebook appears to have done this for some system notices – as is the case with the 'Anne only shares some information publicly' example mentioned earlier – and similar changes could be made on Google+.[46] However, such a task may prove to be more difficult in languages where gendered terminology plays a more integral role.

'Gender is a Text Field'
Diaspora allows users to choose between a list of established servers ('pods') to host their profile on, and they may even install and host the software on their own server. Such 'distributed social networks' tend to give users more control over their data compared to centralized systems like Facebook and Google+. Diaspora is also a project that does not survive on revenue made through advertising, allowing it to focus entirely on making the system work for its users rather than enforcing restrictions on their profiles so they fit neatly into advertising categories.

On 23 November 2010 the first invites were sent out for the pod at joindiaspora.com, which is run by the developers.[47] Earlier that month Sarah Mei, a contributor to the project, made the controversial change of making gender a text field, explaining, 'The "gender" field in a person's profile was originally a dropdown menu, with three choices: blank, male, and female. My change made it an optional text field that was blank to

44. Jessica Motherwell McFarlane, 'Anobbmo - for Sex and Gender Questions', *The Gender Companion*, 15 July 2011, http://thegendercompanion.blogspot.com.au/2011/07/anobbmo-for-sex-and-gender-questions.html.

45. Jim, untitled comment on '"Gender Is a Text Field" (Diaspora, Backstory, and Context)', *Dopp juice*, 8 December 2010, http://www.sarahdopp.com/blog/2010/gender-is-a-text-field-diaspora-backstory-and-context/#comment-6854.

46. Rather than 'Frances added you to [his/her/their] circles', to borrow a previous example, this notice could simply state 'You have been added to Frances' circles'.

47. 'Private Alpha Invites Going Out Today', Diaspora, 23 November 2010, http://blog.diasporafoundation.org/2010/11/23/private-alpha-released.html.

start. A wide open frontier! Enter anything you want'.[48] Mei discusses further why in Diaspora gender is 'not a dropdown with two options like everywhere else': 'I made this change to Diaspora so that I won't alienate anyone I love before they finish signing up. I made this change because gender is a beautiful and multifaceted thing that can't be contained by a list'.[49]

The website for the Diaspora Project echoes this sentiment neatly.

> Personal Profile
>
> Say whatever you want about who you are. Diaspora doesn't force your awesomeness into restrictive categories[50]

This change sets Diaspora apart from Facebook and Google+ in that it allows for greater flexibility of identity performance. A positive consequence of this is that Diaspora is much less likely to impose an environment of marginalization based on gender.

This change didn't get through without opposition, however. It has been argued that setting a text field for something traditionally represented by a drop-down menu could be confusing to users, and it may take them more time to fill it out.[51] Alternatively, some have suggested a compromise – such as a drop-down menu with an optional text box – though this may present issues of perceived priority and othering as discussed previously.[52] A further complaint has to do with the fact that setting gender status as a text field makes it impossible to do useful studies on user demographics based on gender – unless enough people type phrases that can be easily matched algorithmically. Sarah Dopp, writing on Diaspora's actions, attempts to summarize the issue by stating,

> Really, it comes down to the question of *"why do you need the data?"* Is it about encouraging self-expression, helping people find dates, making marketing decisions, or reporting user statistics to investors? Your primary goal impacts your choices for implementation.[53]

Because Diaspora's primary concerns include protecting user privacy and fostering positive communities, giving users absolute freedom over their declared gender status by presenting them with a simple text field feels like an appropriate action. This is an option some commercial social networking services may feel is not possible for them to implement.

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48. Sarah Mei, 'Disalienation: Why Gender Is a Text Field on Diaspora', Sarah Mei, 26 November 2010, http://www.sarahmei.com/blog/2010/11/26/disalienation/.
49. Mei, 'Disalienation'.
50. 'The Diaspora Project', The Diaspora Project, http://diasporaproject.org/.
51. Robby Grossman, untitled comment on '"Gender Is a Text Field" (Diaspora, Backstory, and Context)', 29 November 2010, http://www.sarahdopp.com/blog/2010/gender-is-a-text-field-diaspora-backstory-and-context/#comment-6285.
52. These arguments and more are discussed in detail in the comment section of Sarah Dopp's post discussed above.
53. Sarah Dopp, '"Gender Is a Text Field" (Diaspora, Backstory, and Context)', *Dopp Juice*, 29 November 2010, http://www.sarahdopp.com/blog/2010/gender-is-a-text-field-diaspora-backstory-and-context/.

However, if this field is serving no practical purpose apart from facilitating identity performance, it is reasonable to ask why users are still being prompted to disclose a gender at all?

No Gender/Sex Prompt

Twitter is a social media service that is built for simplicity due to its origins on mobile services.[54] With strict character limits imposed on updates, biographies, and user-names, and very few profile fields, users are forced to be more creative with how they present themselves. Of particular interest here, is that there is no gender or sex prompt on Twitter. This has the effect that it becomes harder to express a specific gender on Twitter, but it also effectively breaks down any sense of platform facilitated gender hierarchies.

On Diaspora some may have concerns as to why there is a gender field at all. By including the field Diaspora prompts users to fill it out and, in doing so, reinforces the idea that this is an important identifier in the context of a social network. Users have the freedom to complete their profiles however they want, but the interface design acts, at least to some extent, as a guide to standard practices. What if gender isn't important to us as an identifier for who we are? Perhaps gender should simply be part of our longer 'bio' section so we can allocate what we personally feel is an appropriate amount of focus on it.

This comes back to issues of gender salience and how this affects the broader community. To some, gender may feel like an outmoded identifier that is losing social relevance in digital spaces. Some even equate it to the practice of asking for a person's race on forms. Sarah Dopp, for example, writes in an open letter to Silicon Valley:

> […] *please think about how you're handling race and gender on your websites.* Just look at it. You don't have to change anything. Just make a mental note in your head about what [you're] saying to your users about the importance of race and gender, and the categories that exist for them.
>
> I'll give you a hint: If you're still asking about race in a required drop-down menu, you're way behind. Because doing it that way says to a user:
>
> * You have a race.
> * It's really important to me.
> * It's one (and only one) of these listed here.[55]

Regarding Twitter, gender data may be useful to some individuals, but overall, the benefits may be outweighed by the negative social effects, discussed earlier, of including an additional field.

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54. David Sarno, 'Twitter Creator Jack Dorsey Illuminates the Site's Founding Document. Part I', *L.A. Times*, 18 February 2009, http://latimesblogs.latimes.com/technology/2009/02/twitter-creator. html. Emphasis in original.
55. Sarah Dopp, 'Genders and Drop-down Menus', *Dopp Juice*, 20 December 2008, http://www. sarahdopp.com/blog/2008/genders-and-drop-down-menus/. Emphasis in original.

Potential problems may also arise from omitting gender from the environment, however. A phenomenon referred to as 'stick-figure sexism'[56] describes common assumptions made about stick-figure representations of persons. If there are no features, such as hair or a walking stick, it is often assumed that these figures represent white, middle-aged, able-bodied male persons. All deviations from this norm are generally represented by 'add-ons' of some description – long hair, for example, or a cane.

The way this relates to social media profiles is that, if a user has not made any typically gendered declarations, viewers may assume such users are likely to fit into whichever gendered or broader social demographic they assume is common in that environment. For example, if person 'A' is under the impression that most YouTube comments are written by male teenagers from the U.S., they are likely to assume that a user named 'B', with no other declared personal information, also fits within that demographic. It is possible, then, that hiding information about the diverse population of a digital community could facilitate the illusion of more uniformity among the user base than there actually is. It is also possible, however, that this would not be a problem on most social media communities as there are plenty of opportunities for highlighting user diversity through language, conversation, and other methods of identity performance.

Though Twitter doesn't make it easy to determine user demographics through explicit categories such as gender, it is still possible to extrapolate this to a significant extent. Most notably, viewers respond to various cues – such as user name, profile picture, language choices, and tweet contents – and make assumptions based on social stereotypes. Gender can also be computed algorithmically. Researchers at the Mitre Corporation published a paper in May 2011 entitled 'Discriminating Gender on Twitter'. In it, they explain how they trained software to analyze just the text of a single tweet and have a 67.8% chance of being correct about the gender of the user who wrote it.[57] Human performance was not too dissimilar, in comparison, at an average of 68.7% across test subjects. Having the complete set of tweets from a user raised the software success rate to 75.5%, and including their screen name, bio, and full name brought this all the way up to 92.0%.[58]

Twitter is operating strongly without needing to gather gender and sex information from its users. It is clear that socially, like the researchers at Mitre Corporation did with users that made up its dataset, we can – and routinely do – respond to identity performance cues and make assumptions about others based on our experiences without the interface having to focus on specific user information and suggest its contextual importance.

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56. gethen, 'Stick-Figure Sexism', gethen blog, 29 december 2009, https://gethenhome.wordpress.com/2009/12/29/stick-figure-sexism/.
57. It is important to note that the findings of this paper assume a gender binary and that the authors responded to various gender cues to determine what they felt was the correct gender of the Twitter users for comparison within their dataset.
58. John Burger et al, 'Discriminating Gender on Twitter', Mitre, May 2011, http://www.mitre.org/work/tech_papers/2011/11_0170/11_0170.pdf.

Responding to the Unchecked Corporate Influence on Culture

Our social media profiles are hosted on servers around the world. However, the word 'host' has an additional meaning that is relevant to, though largely neglected in, discussions of social media. When we adopt social networking platforms we give them control over our representation in digital space. Yes, we can fill out our profiles however we like, as long as it's in accordance with the system's complex rules and restrictions, but the system has ultimate control over the way these profiles are presented to others, based on various design decisions. To introduce a metaphor, the broader digital environment is like a party and our social networks are the 'hosts' introducing us to others according to pre-set algorithms based on what information we have chosen to divulge. We represent our complex selves through our various interactions and by filling out our profiles, but we never connect directly with others – it's always mediated through the chosen host who *re*-presents us to the world.

Google+ and Facebook determine a minimum level of importance for gender and define to a significant extent what gender actually means within these environments. These choices to embed gendered language throughout a system, conflate complex terminology, and algorithmically influence the prominence of gender salience, can negatively influence engagement. Whatever the reasons for these and other restrictions, it is clear that these corporate systems choose not to address concerns over equal access and safety if they may conflict with their publicized agenda of facilitating regular public engagement only between 'real identities' that are consistent across multiple services.

Regardless of how problematic the situation described here may be, it remains difficult to move our online presence to more liberating spaces, such as Diaspora and other decentralized alternatives. Even activists worried about their safety often choose to participate within these corporate systems. 'If you want to organize a movement the only place to do it effectively is on Facebook', says Nadine Wahab, the moderator of a Facebook page related to the Egyptian revolution, 'because you have to go where all the people are'.[59] When our existing social networks are on Facebook or Google+, and as mass adoption and participation make such spaces the location of much of our civic engagement, we see that they become difficult to leave as an individual and close to impossible to coordinate a successful mass migration away from. Such social coercion means Facebook and Google+ will continue to play a big part in dictating the terms of public engagement. Questions remain as to whether it is appropriate or ethical for them to decide who can and can't participate within their services when this has implications for wider social marginalization.

So how might we address these concerns? Gina Wilson, president of Organisation Intersex International Australia, while discussing problems that would be created by the introduction of a third sex option on birth certificates, renounces more broadly the common practice of collecting information about sex status:

> Indeed in an equal society there is no reason for sex designators to be included in the vast preponderance of documentation. The real necessity right now is only for

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59. Rebecca MacKinnon, *Consent of the Networked: The Worldwide Struggle for Internet Freedom*, New York: Basic Books, 2012, p. 153.

census like information to be gathered so marginalized peoples can be identified and resources can be allocated.[60]

The sentiment of collecting information *only when socially necessary* is perhaps idealistic in some social media environments, but such practices can already be seen in many decentralized, free open-source software projects, such as Diaspora, due in part to their tendency to focus on privacy concerns and not see their users as commodities to be categorized and sold to advertisers. It is important to keep trying out systems with new design choices, like Diaspora with its gender text field, to see how they are received and what social differences they make, even if alternatives to Facebook and Google+ don't receive a high adoption rate among the general public. Such results can be drawn on when campaigning for changes to be made within these and other corporate services.

Though this text focuses on issues resulting from system-defined sex and gender representation choices, it highlights a more general concern about the role our adopted social media services play in defining who we are as individuals and as a wider society. We are all complex beings that do not fit neatly into categories so when social media platforms establish the frame of identity a community will take, problems will necessarily be introduced. None of us can be accurately transcribed into digital space and the more restrictions are imposed on our identity performance by these services, especially when they are mandatory and data validation rules are enforced, the more likely users will feel delegitimized or be left out entirely as a result of these decisions.

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60. Gina Wilson, 'Third Gender? No Thanks, Says Australian Intersex Organization', *Gay Star News*, 12 July 2012, http://www.gaystarnews.com/article/third-gender-no-thanks-says-australian-intersex-organization120712.

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'WHY I LEFT FACEBOOK': STUBBORNLY REFUSING TO NOT EXIST EVEN AFTER OPTING OUT OF MARK ZUCKERBERG'S SOCIAL GRAPH

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ROBERT W. GEHL

FACEBOOK   LEFT   YOU   SOCIAL
MORE   PEOPLE   COME   VOTE
MY   LIKE   FRIENDS   ABOUT
USERS   DATA   BLOG   WORK

Leaving Facebook is a lonely thing to do. [1] I left Facebook after a two-year stint on the social network. To me, leaving felt like a solitary act, like slipping away alone from a massive party before it ends. This seeming solitude was amplified by the fact that I could not use Facebook to explain to my friends and family why I had left.

But of course, I could not be the only person to leave Facebook, and indeed there are many who have done the same. A portion of them have refused to go without telling others why, explaining their reasons on blogs (as well as on Twitter, Google+, Diaspora, and other media). Like me, many of them indicated that they felt as if they were alone in leaving.

However, they are not alone. In fact, there are many of them. Moreover, their publicly shared reasons for leaving are instructive for others who want to quit Zuckerberg's social graph. These Facebook quitters have produced a remarkable set of critical interrogations of Facebook's worst qualities: its role in reshaping how we think about privacy and sharing our data, its commodification of user activity and emotion, its reduction of life to likes and friending, its incessant and bizarrely addictive noise, and the fact that it is just not cool anymore. Moreover, by writing about their decision to opt out, they are helping to mitigate against the compelling power of the social network that seemingly everyone is on. That is to say, by writing about their choice, they help preserve and extend alternative spaces of discourse outside of Facebook. And they make leaving Facebook feel far less like slipping away from a party and more like joining a smart and thoughtful club.

Facebook Democracy

First, the obvious question: why leave Facebook? Why not change it from within? Given that Facebook claims to have more 'monthly active users' than most countries have citizens – that is, over 800 million,[2] we might decide to use metaphors of citizenship and democracy to understand how the site is governed. After all, this is the language that Facebook itself uses. The owners and marketers for Facebook and other social media use terms like 'participation' and 'democratization' to describe what they offer

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1. This essay is dedicated to Jessica Houf, who is one of the best examples of social media quitters I know of.
2. David A. Ebersman, 'Facebook, Inc Registration Statement on Form S-1', Securities and Exchange Commission, 1 February 2012: 1, http://www.sec.gov/Archives/edgar/data/1326801/000119312512034517/d287954ds1.htm.

to users. For example, in a keynote speech at Facebook's 2007 F8 convention, Dan'l Lewin, a vice president from Microsoft (a company which at that time had just invested $240 million in Facebook), proclaimed:

> The partnership [between Facebook and Microsoft] is oriented around democratizing, unleashing the web, unleashing the data the Facebook user community [...] is creating. Facebook today presents maybe the definitive opportunity for unleashing the power of the web and the data the users create and share among themselves.[3]

This line of thinking holds that, by empowering users to express themselves, Facebook is a democratizing force. Let the web off the leash! An unleashed web of everyday user data is, we are told, an unstoppable force for democracy and connection. This all-too-common line of thinking explains why some proclaimed the Arab Spring to be a Facebook Revolution, as if all it took was the existence of Facebook to drive people into public squares to challenge dictators and demand democratic reform.

So perhaps users could be forgiven for protesting loudly and using tools of democratic governance when, in 2009, it was revealed that Facebook's new Terms of Service (ToS) claimed ownership over user data in perpetuity, even if a user left the service. The change was made public by an article in *The Consumerist* with the headline 'Facebook's New Terms Of Service: "We Can Do Anything We Want With Your Content. Forever."'[4] Outraged users started a group, 'Millions Against Facebook's New Terms of Service and Layout', eventually growing to over two million members. They petitioned for a change.

It seemed as if they were heard. To allay their concerns, Facebook allowed users to vote on the proposed new Terms of Service, or keep the old ones. Mark Zuckerberg introduced the first Facebook Site Governance vote in 2009 by writing 'Today, we take the next step in opening our site governance to everyone who uses Facebook with our first user vote'.[5] And in 2012, Facebook also reacted to pressure from users and privacy regulations in the European Union by holding a vote on keeping an old ToS or accepting a new one. As in 2009, the user-protestors used democratic tools such as petitions and comments to pressure Facebook to improve their privacy policies.[6]

There was only one condition: both votes on changes in the ToS would be binding only if at least 30% of monthly active users voted. In 2009, that was roughly 160 million. In 2012, it was roughly 240 million. These are incredibly large numbers, and in fact they

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3. Mark Zuckerberg and Dan'l Lewin, 'Keynote', F8, San Francisco, CA, 24 May 2007. http://www. facebook.com/f8.
4. Chris Walters, 'Facebook's New Terms Of Service: "We Can Do Anything We Want With Your Content. Forever"', The Consumerist, 15 February 2009, http://consumerist.com/5150175/ facebooks-new-terms-of-service-we-can-do-anything-we-want-with-your-content-forever.
5. Mark Zuckerberg, 'Voting Begins on Governing the Facebook Site', The Facebook Blog, 16 April 2009. http://blog.facebook.com/blog.php?post=76815337130.
6. Cameron Scott, 'User Vote on Facebook Privacy Policies Hasn't Stemmed Criticism', *PC World*, 6 June 2012, https://www.pcworld.com/businesscenter/article/257101/user_vote_on_facebook_ privacy_policies_hasnt_stemmed_criticism.html.

proved to be far too large. About 600,000 people voted in the inaugural vote,[7] and in 2012 only 350,000 people voted.[8]

So what happened? One might read these numbers as evidence that users do not care about the ToS. One could even read these results as democracy in action (democracy inaction?), since the choice to not vote is the citizen's prerogative. But there's something else going on: the mathematical legerdemain of 30% of *monthly active users*. The votes were held for a week – that is, 25% of a month – meaning that immediately the number of potential voters was depressed. Given the dry nature of a ToS document (reading these is certainly not a fun way to spend a few hours on a social network), it is impressive that hundreds of thousands of people did in fact vote. But these numbers don't come close to the impossibly high goal Facebook set for the elections.

To be fair to Facebook, in 2009, after about 75% of the 600,000 voters chose the new policy, Facebook decided to waive the 30% rule and keep their new policy.[9] At that point, it sounded as if Facebook would de facto do away with the extremely high 30% requirement. But, they repeated the 30% rule in 2012. More importantly, even though the 2012 vote results had 87% vote *against* the new policy, Facebook chose to adopt it, anyway*,* unlike their reaction in 2009.[10] Combine this practice with complaints that Facebook did not publicize the vote, how to actually cast a vote,[11] and that they held the vote for only a week, and it's clear that Facebook's proclamations of 'democratization' and participation are, if not unfounded, disingenuous at best. In either case, Facebook basically got the ToS documents it wanted, votes be damned.

Certainly, this is not the only way to vote on Facebook policies. Perhaps now that Facebook is a public company, shareholders can vote for policies and practices that protect user rights. However, even a cursory glance at Facebook's Securities and Exchange Commission (SEC) Registration Statement reveals that those investors who were able to get Facebook initial public offering (IPO) stock (that is, those users with connections to Wall Street investment firms – keep in mind that small investors are almost always shut out of IPOs) received Class A stock. Each share of such stock equals one vote in shareholder meetings. Compare that with Class B stock, held by executives such as Mark Zuckerberg: a share of Class B is worth *ten* votes. Thanks to their holding of Class B stock, Zuckerberg and the upper-level executives are firmly in control. Moreover, even if shareholders somehow could work together to

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7.   Ted Ulyot, 'Results of the Inaugural Facebook Site Governance Vote', The Facebook Blog, 23 April 2009, http://blog.facebook.com/blog.php?post=79146552130.

8.   Casey Johnston, 'Whopping .038% of Facebook Users Vote on Data Use Policy Change', *Ars Technica*, 8 June 2012, http://arstechnica.com/business/2012/06/whopping-00038-of-facebook-users-vote-on-data-use-policy-change/.

9.   David Sarno, 'Facebook Governance Vote Is a Homework Assignment No One Did', *Los Angeles Times*, 23 April 2009, http://latimesblogs.latimes.com/technology/2009/04/facebook-governance-vote-is-a-homework-assignment-no-one-did.html.

10. Somini Sengupta, 'Facebook Holds a Vote and Turnout Is Low', *New York Times*, 8 June 2012, http://bits.blogs.nytimes.com/2012/06/08/facebook-holds-a-vote-and-turnout-is-low/.

11. See user comments at https://www.facebook.com/fbsitegovernance. Many claim to have not heard about the vote until after the vote closed. See also Johnston, 'Whopping .038% of Facebook Users Vote on Data Use Policy Change' and Ricardo Bilton, 'Facebook Hid Policy Vote, Privacy Group Says', *VB*, 8 June 2012, http://venturebeat.com/2012/06/08/facebook-china-policy-vote/.

advocate for better privacy policies, why would they? Shareholders want a return on their investment. Facebook will provide such a return only if it can commodify user activity, a process that requires the sort of obfuscation and doublespeak that marked the ToS votes.[12]

So much for Facebook democracy as a means to reform this social media monopoly from within.

Opting Out: Facebook is NOT the Internet... But it Wants to Be
After all of the above discussion, I should admit that I have never believed Facebook to be a democracy, and no one else should, either, despite the Web 2.0 language of participation and democracy. Facebook is a business, one based on constantly observing us declare our desires and relationships. Capitalism and democracy just don't mix; as Mark Zuckerberg has allegedly explained, 'the most disruptive companies don't listen to their customers'.[13] So let's consider our options not from the perspective of the democratic citizen, but from the perspective of the vaunted sovereign, rational consumer (the only subject position we are invited to take in the face of global capitalism and 'disruptive' companies).

There's a saying among neo-conservatives in the United States: 'If you don't like America, you're free to leave'.[14] This statement is part of an argument that true patriotism is uncritical acceptance of the American government's policy (especially its foreign policy, now one of constant war). It's technically true – Americans who disagree with the actions of the country could leave – but in practice pretty much impossible, unless one is very rich (as in the case of one of Facebook's founders who left the US for Singapore to escape tax obligations).[15]

In the case of Facebook, however, this is a bit more plausible. There's a mirror to the saying: 'You're free to leave', you don't have to use Facebook if you don't like it. This is the sort of power granted to us in a consumption-oriented society. Don't like ineffective Facebook democracy? Don't like its use of data, reduction of emotion to 'liking', or stunted conception of friendship? You can leave.

But is it true?

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12. Facebook commodifies user activity by constantly recording it, storing it, and selling chunks of it to marketers and even states. This mechanism is hidden behind the surface layers of the software, as well as the discourses of 'participation' and 'friendship' that Facebook deploys. See Robert W. Gehl, 'The Archive and the Processor: The Internal Logic of Web 2.0', *New Media & Society* 13.8 (December, 2011): 1228–1244; Robert W. Gehl, 'Real (Software) Abstractions: On the Rise of Facebook and the Fall of Myspace', *Social Text* 30.2 111 (2012): 99–119; and Christian Fuchs, 'The Political Economy of Privacy on Facebook', *Television & New Media* 13.2 (1 March, 2012): 139–159.
13. Owen Thomas, 'Even Facebook Employees Hate the Redesign', *Gawker*, 20 March 2009, http://gawker.com/5177341/even-facebook-employees-hate-the-redesign.
14. For a Facebook page on this slogan, see https://www.facebook.com/pages/If-you-dont-like-America-then-please-dont-live-here/308442008575.
15. Quentin Hardy, 'Eduardo Saverin's Billionaire Blues', *New York Times*, 18 May 2012, http://bits.blogs.nytimes.com/2012/05/18/eduardo-saverins-billionaire-blues/.

A major theory in the economics of communication technology is the network effect. Basically, this means that a communication technology increases in value as more people use it. For example, if I own a telephone, but none of my friends, family, or colleagues do, its value is quite low, even if I paid much money for it. As more people I know get telephones, its value rises almost exponentially, exceeding the price paid.

This economic theory has a sociological aspect: as more people join a network (such as a telephone network or a social network site), more pressure builds on non-users to get on board. This is happening with Facebook. Facebook has a huge user base, so family, friends, political and cultural groups, businesses, and professional colleagues are starting to assume that everyone has a Facebook account. This has led to anecdotal accounts of people being excluded from social or professional events or discussions. In addition, as more and more sites adopt Facebook Connect as their login system, having a Facebook account will be a necessity to use many online services (the music streaming service Spotify is a notable example of this, as is Answers.com). If this becomes endemic, Facebook's network effect could severely undermine opting out as a form of protest. The idea that if 'You can't be found on Google, you don't exist' would be extended to Facebook in all walks of life: friendship, dating, employment, and internet use.

However, Facebook's network effect does have a weakness: Facebook is not the internet. Certainly, it wants to be. Per their initial public offering SEC Registration Statement they state: 'There are more than two billion global Internet users, according to an industry source, and we aim to connect all of them'.[16] With its post-IPO transition to a public company complete, Facebook will likely pursue this goal (while of course simultaneously pursuing the goal of monetizing user content and attention).

Despite this ambition, Facebook has (thankfully!) not yet insinuated itself into every networked communication. Rather than being the hegemonic platform on the internet, Facebook comprises only part of what I have elsewhere called a 'Web 2.0 Portal'.[17] Facebook is certainly strong in terms of providing identification credentials to the rest of the web, although Twitter's OAuth system is competitive here.[18] In comparison to the rest of a Web 2.0 Portal, it is weak in terms of search (people turn to Google for this) and in terms of content management (news and media sites, blog posts, and videos are largely hosted elsewhere – Facebook does however have a huge database of photographs). Facebook is simply a part – albeit a powerful part – of a conglomeration of social media sites that largely monopolize their respective spheres; these sites are interlinked in an array of protocols, APIs, user activities, and trade associations.[19]

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16. Ebersman, 'Facebook, Inc Registration Statement on Form S-1'.
17. Robert W. Gehl, 'Distributed Centralization: Web 2.0 as a Portal into Users' Lives', *Lateral* 1.1 (March, 2012), http://culturalstudiesassociation.org/lateral/issue1/gehl.html.
18. In the literature on web portals, this is called 'single-sign on'.
19. As I explore in a chapter in my forthcoming book *Reverse Engineering Social Media*, the major social media work together in standards- and practices-setting consortia such as the Interactive Advertising Bureau (IAB). Although news reporting often presents Google, Facebook, Microsoft, Apple, and Twitter as viciously competitive, they do work together via organizations such as the IAB to share data and lobby regulators.

Thus, the existence of Web 2.0 Portal alternatives to Facebook (especially blogs) allows for those who opt-out to 'exist', to 'write themselves into being' in another context, as danah boyd might say.[20] This leads me to the central object of this essay: blog posts from people who have left Facebook.

Leaving Facebook

Right now I should provide caveats: what follows is not a scientific survey. This is simply a series of quotes and commentary from people who claim to have left Facebook.[21]

Before I get to the quotes, though, perhaps I should explore the very idea of leaving Facebook. What does this mean? I myself had a Facebook account for about two years. In 2010, I went through the process of leaving. I visited the Help Center, went through the Account Settings, read the tutorial on deleting my account. Most importantly, I overcame a shameless tug on my heartstrings: a screen that says, 'Are you sure you want to deactivate your account? Your 312 friends will no longer be able to keep in touch with you. Suzy will miss you. Jim will miss you. Antonio will miss you'.[22] And even after that, I had to confirm two weeks after deactivation to actually *delete* my account.

So, after all this, have I left Facebook? Maybe. But what about Facebook's promise to store all of my data, even after I closed my account (recall that this is what caused the protest in 2009 and the first Facebook ToS vote)? Have I left Facebook, or is my digital data double living on as a sort of zombie, or as a marketing profile (straight white male aged 25-33, college educated, likes 1990s grunge music)? And what if there are images of me on other people's profiles, or comments about me - have I left Facebook if there are?

I also currently have two fake Facebook accounts. Because I study the architecture and software of Facebook, I have to keep up with its interface and policy changes, even if I don't participate in day-to-day use. I log in and explore the service with these accounts. It's not *me* who is logged in – whatever it means to be 'me'. So have I left Facebook? How much of 'me' is in my fake accounts?

Moreover, Facebook's process for leaving is opaque. It is quite possible that most users who 'leave' have *deactivated*, not deleted, their accounts. This is the easiest option for 'leaving'. Deletion is much harder: there's a two-week moratorium, and the process to do so is buried behind various help screens. Deactivated accounts remain inactive until the user logs back in. If a user never logs back in, but the user's data still remains on Facebook's servers, has he or she left Facebook?

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20. danah boyd, 'Friends, Friendsters, and Top 8; Writing Community into Being on Social Network Sites', *First Monday* 11.12 (December, 2006), http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1418/1336.

21. And I should also say I have not checked up on these people to see if they have, in fact, actually left Facebook.

22. See, Jennifer Van Grove, 'Want to Delete Your Facebook Account? Be Prepared For a Guilt Trip', *Mashable*, 22 July 2009, https://mashable.com/2009/07/22/facebook-deactivate-account/, for a discussion of this guilt trip.

Finally, there is a third type of account, one for those who leave the living. These are 'memorial accounts'. As Max Kelly of Facebook explains, 'how do you deal with an interaction with someone who is no longer able to log on? When someone leaves us, they don't leave our memories or our social network. To reflect that reality, we created the idea of "memorialized" profiles as a place where people can save and share their memories of those who've passed'.[23] So, do the dead leave Facebook if they never leave 'our social network' and if their profiles remain online?

These are intriguing questions, and at the heart of them is the nature of digital culture: the duplication of digital data means that no digital object can truly be owned; life in social networks is a digital shadow of the self (or perhaps it is a prosthesis for the self) that can persist even after death; paying attention to the digital flow is a privileged way of being, a way to live 'declaratively'[24] and constantly assert one's existence.

In light of this, I can only take the following stories of leaving Facebook at face value. I cannot discern whether these bloggers have 'truly' left Facebook, because it is not clear what that means. Setting aside these limitations, it is time to finally ask: why do people leave Facebook?

Privacy Concerns

Perhaps the most common criticism of Facebook is that its sole purpose is to gather as much private data on users as is possible. Besides allegedly explaining that 'disruptive companies don't listen to their customers', Mark Zuckerberg will forever be associated with the phrase 'privacy is dead' (even though he didn't actually say it).[25] Regardless of what he actually said, some Facebook quitters took exception to what Zuckerberg implied. For example, Matthew K. Gold:

> I very much wanted to share photos of my baby with family and friends, but I didn't want to share them in a space run by a man who believes that privacy is dead. It's that simple: I deleted my Facebook account *because* I loved my facebook network and didn't want to see my interactions with it mined relentlessly by a company without scruples.[26]

Comedian and blogger Fenzel concurs:

> [Facebook will] say they're adding features, and they are... but they're doing it without asking you, and they're taking away something valuable from you without giving you a chance to say no – your privacy, your personal information, even your conversations among your friends. They're putting your job at risk by making it very hard to exercise discretion and keep up boundaries around what you say online.

23. Max Kelly, 'Memories of Friends Departed Endure on Facebook', The Facebook Blog, 26 October 2009, http://blog.facebook.com/blog.php?post=163091042130.
24. James Governor, Dion Hinchcliffe and Duane Nickull, *Web 2.0 Architectures*. 1st ed. Sebastopol, CA: O'Reilly Media Inc, 2009, 190–192.
25. Bobbie Johnson, 'Privacy No Longer a Social Norm, Says Facebook Founder', *The Guardian*, 11 January 2010, http://www.guardian.co.uk/technology/2010/jan/11/facebook-privacy.
26. Matthew K. Gold, 'Why I Left Facebook', *The Lapland Chronicles*, May 15, 2010. http://mkgold.net/blog/2010/05/15/why-i-left-facebook/.

> They're tricking you into thinking nothing is happening. And then they're selling that to people.[27]

Part of this criticism is a critique of Facebook's intellectual property practices, especially the February 2009 change in the ToS that prompted the 'Millions Against Facebook' protest. Facebook holdout Cord Jefferson combines the privacy concern with the intellectual property concern:

> [p]ull back the curtain and it's a place for getting people ages 13 and over to willingly offer up the most direct ways to sell them things. It's like being at a big party with all your friends but then realizing that the party is really a Pizza Hut focus group. And also, any pictures you take at the party are owned by the focus group forever. Sound fun to you?[28]

Here, Jefferson deftly links Facebook's surveillance of user activity, its raison d'être (selling users' data to advertisers), and its desire to construct what I call an 'archive of affect' out of the appropriated creative activity of users.[29] Facebook and other advertising-centric social media are engineered to gather refined data on the desires of their users. This quantification of emotion – what Eva Illouz has called 'emotional capitalism'[30] – is imagined to be a gold mine for the realization of surplus value locked within commodities. If a granular archive of affect comprised of creative products and metadata can be built by monitoring user activity, then in theory more targeted advertising can be directed at consumers. These bloggers recognize this.

Less commonly discussed among bloggers, but certainly a concern in surveillance studies, is the phenomenon of surveillance culture permeating the day-to-day practices of 'ordinary' (for lack of a better word) people. That is, the blog posts quoted above point out the ways in which powerful entities such as corporations (Facebook itself, advertising networks) and to a lesser extent states are watching us in social media. But of course, much of social media is marked by 'lateral surveillance' – what Mark Andrejevic aptly calls 'the work of watching one another'.[31] In other words, watching one another is now normalized, with myriad consequences.

Some of the Facebook quitters cited the burden of this work of watching one another (and being watched) in their posts. Blogger Cass writes, 'I have seen families split apart. I have seen events destroyed through thoughtless social "management." I have seen stalking facilitated, I have seen people delete their grandmothers because they

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27. Fenzel, 'Why I Left Facebook', *Overthinking It*, 13 May 2010, http://www.overthinkingit. com/2010/05/13/why-i-left-facebook/.

28. Cord Jefferson, 'The New Dinosaur: Why I'm Not on Facebook, and Why You Shouldn't Be Either', *Good*, 6 May 2011, http://www.good.is/post/the-new-dinosaur-why-i-m-not-on-facebook-and-why-you-shouldn-t-be-either/.

29. Gehl, 'The Archive and the Processor'.

30. Eva Illouz, *Cold Intimacies: The Making of Emotional Capitalism*. Cambridge, UK: Polity, 2007.

31. Mark Andrejevic, 'The Work of Watching One Another: Lateral Surveillance, Risk, and Governance', *Surveillance & Society* 2.4 (2005): 479–497; and Mark Andrejevic, 'The Discipline of Watching: Detection, Risk, and Lateral Surveillance', *Critical Studies in Media Communication* 23.5 (December, 2006): 391–407.

can't stand the pressure any more'.[32] This software-oriented language – 'deleting' a grandmother – is a powerful indicator of the sheer weight of performing for an always-watching audience comprised of friends and family. Similarly, Brian Fegter writes about the burden of performing for so many people:

> I have 1,300 friends on Facebook and almost 500 followers on Twitter. That means at any given time, 1,800 people can look into my personal life, opinions, photos, etc… There are people who follow me and never interact with me, but yet when they see me at a conference they can regurgitate everything I posted for the last six months. The fact that we watch other people's personal thoughts and their life unfold in our time line without interaction is a form of digital voyeurism.[33]

According to another blogger, Bluedepth, the work of performing for such ubiquitous surveillance is not mitigated by Facebook's system of controlling what data is shared with whom. In fact, using such a system is a job in itself:

> Facebook used to have really easy ways of managing Friends Lists, but recently they've eroded a lot of that functionality away. I maintained a NoWall group and banned that group from seeing any content on my Facebook page. I then stuffed family members, friends, and people I know a little bit into that group. Partly because I don't want to deal with them seeing all that I have to share and partly to punish some for being social twats.[34]

Bluedepth goes on to explain that, despite this work of managing friends and family, there were still leaks of data to the wrong audience members, a common complaint about Facebook.[35]

And woe to those who try to limit which friends and family watch us. As Fegter writes,

> There have been a few times that I have stopped following others only to receive an angry or inquiring email demanding a reason why. I've discussed this with friends and many have experienced the same scenario. The impact of that one "Stop Following This Person" or "Remove From Friends" has caused turmoil in many real-life friendships.[36]

For these bloggers, then, either they bear the burden of performing for a voyeuristic audience, or they spend hours carefully managing their privacy policies. Either way, they work as they use Facebook. Certainly, the sheer work of performing – for Facebook

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32. Cass, 'I Left Facebook', *I Left Facebook*, 4 August 2010, http://www.ileftfacebook.com/.
33. Brian Fegter, 'Why I Am Leaving Twitter and Facebook', Mister Nifty, 13 September 2010, http://www.misternifty.com/internet/social-networking/why-im-leaving-twitter-and-facebook/.
34. Bluedepth, 'Why I Left Facebook', Bluedepth's Journal, 9 November 2011, https://bluedepth.wordpress.com/2011/11/09/why-i-left-facebook/.
35. See 11:25 of Clay Shirky, 'It's Not Information Overload. It's Filter Failure', The Web 2.0 Expo, San Francisco, CA, 23 April 2008**,** http://web2expo.blip.tv/file/1277460, for a discussion of how even social media scholars have their data leak despite their best efforts to use Facebook's privacy settings to prevent it.
36. Fegter, 'Why I Am Leaving Twitter and Facebook'.

itself, for friends and family – is productive, and we do get something valuable from social media: pleasure, connection, ego boosting. But is this value enough for what we give? This brings us to the next line of critique from Facebook-quitting bloggers.

Who Receives Value?

Because Facebook's business model is based on trading access to the social graph for personal data, we can think of it as a transaction. Let's put on our (neoclassical) economist's hat and think about our existence as utility-maximizing rational actors. Does one get more value out of Facebook than one receives by taking time to update statuses, tag photos, and sort friend lists? Several Facebook quitters say no. Nick Bruun writes,

> I have to go through the same stupid process and read the same irrelevant content. Ultimately then, just trying to use Facebook simply drains my energy as I'm left with the feeling of "well, that's <insert time span here> I'm never getting back" after every single bit of effort I put into it. In business terms then, my [Return on Investment] is absolutely zero, and just like any other part of my life, if there's not return, I can't be bothered.[37]

While access to Facebook is free, the effort users put into is also freely given, a phenomenon Tiziana Terranova famously calls 'free labor'.[38] Free access to the social graph in exchange for free labor may seem like an equal trade, but considering what Facebook and marketers do with user data has caused some Facebook quitters to see the exchange as highly unequal. For blogger Thudfactor, Facebook's use of user opinions on products and services amounts to unpaid endorsement deals:

> "Like" a company? They'd like to use that as an advertisement, please. Bought something on Amazon? Maybe your friends would be interested in that thing, too. Drinking at a certain bar? If we let the FB timeline know, maybe folks will join you! [...] That's what they really want of you. The price of using Facebook is not just that some of your information gets shared with marketers and that you have to look at advertising. The real price is a blanket endorsement deal. I'd prefer to decide for myself what I endorse and what I don't, but it's clear to me now that Facebook really doesn't want to leave me that decision. And so I'm gone.[39]

Thudfactor here is doing a rational calculation: I don't want to give my free labor to Facebook, because the price of having to endorse products for free is too high for the value returned.

But there's another aspect to Terranova's 'free labor' argument: online labor (liking, commenting, friending, etc.) is often emotional, affective labor. This is the work of

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37. Nick Bruun, 'Why I Left Facebook', Nick Bruun, 21 September 2011, http://nickbruun. dk/2011/09/21/why-i-left-facebook/.

38. Tiziana Terranova, 'Free Labor: Producing Culture for the Digital Economy', *Social Text* 18.2 (2000): 33–58.

39. Thudfactor, 'Why I Left Facebook', Thudfactor, 26 September 2011, http://www.thudfactor.com/ left-facebook/.

building and maintaining relationships.[40] Such work is often outside of the theory of utility-maximizing rational actors, because it is difficult to rationalize in terms of price and value. We place a high value on the day-to-day work of keeping families, friends, and co-workers happy, and yet we don't place a monetary price on it (have you repaid your mom for what she has done for you? Could you?) Moreover, it's hard work, and yet it's also love. Regardless, within social media, this work is extremely necessary: it produces the very data that Facebook et al. try to sell to marketers. Facebook quitter Sarah Hunt recognizes these contradictions of free labor:

> Even a small distance has revealed how much time I was wasting, and almost all of it doing what Brene Brown calls the "hustle for worthiness."[41] I am clearly naturally hilarious and personable (and sarcastic), but I started putting pressure on myself to be clever, always, which is exhausting. I also have this insatiable, annoying need to try to prevent my friends from experiencing discomfort, so I'd spend way too much time making sure to like their posts and at least be the one person who would comment on their dramatic status updates or intimately personal pictures or whatever, and I'm sure some of that was driven by an unconscious hope that they'd return the favor.[42]

Here, Hunt recognizes the labor of making others feel appreciated and loved. This exhausting work is not remunerated by Facebook, even though this work is the very thing that gives Facebook life and builds material wealth for its owners. The only compensation she might hope for is that her affection returns in a cybernetic loop: perhaps her friends would 'return the favor' of likes and comments. Affection, love, and emotion are in fact required by Facebook, even as they are constrained, as we shall see other Facebook quitters argue.

Flattened Friendships

Much has been written about the degradation of the word 'friend' now that Facebook is a dominant website. As Molly Schoemann writes,

> Click here to scan through your Facebook friends and realize that very few of them represent actual, current friendships or even associations that you remotely value. In fact your list of contacts feels like an eerie social graveyard of expired friendships, badly ended relationships, and vague, past acquaintances you care very little about. Begin to feel depressed by the fact that so many people have passed in and out of your life without leaving much of an impression on you. Wonder how a website that is so meaningless, vacuous and shallow has become so overwhelmingly popular (particularly with younger generations), and what that means about how we view social interaction today and the direction in which it is going.[43]

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40. Arlie Russell Hochschild, *The Managed Heart* makes a similar argument, especially as it relates to service work. For service workers, as for Facebookers, the labor is a labor of love - i.e., ensuring that others are happy. *The Managed Heart: Commercialization of Human Feeling*. Berkeley and Los Angeles: University of California Press, 1983.
41. She's linking to a podcast, available at http://howshereallydoesit.com/podcast/2011/03/brene-brown/.
42. Sarah Hunt, 'Why I Left Facebook and Why Nobody Noticed', Cincy Sarah, 20 February 2012, http://cincysarah.blogspot.com/2012/02/why-i-left-facebook-and-why-nobody.html.
43. Molly Schoemann, 'Why I Left Facebook', I Heard Tell, 1 January 2009, http://mollyschoemann.com/2009/01/01/why-i-left-facebook/.

Schoemann's critique is probably the most eloquent example of similar criticisms from other bloggers. Facebook quitters argue that friendship in Facebook is reduced to meaning 'someone I've met at some point'. For example, Nick Bruun writes, 'the people I "know" on Facebook are just a bunch of people I've randomly run into at some point in my life rather than people I actually interact with'.[44] For Sarah Hunt, this reduction was confirmed after she left:

> No one noticed. Not one of my near 200 "friends" seems to have noticed I'm gone, or if they do, it's clear that our interaction was limited to virtual reality because I haven't heard from them otherwise, despite our daily interactions on FB. No one has checked to see why I'm gone from there, though I suppose it's possible a few of them are wondering if I've just blocked them. I hope that's not the case. Honestly, there are only a few people I'd have tracked down, myself, if they'd disappeared, so I don't really have animosity about that. It's more of a matter-of-fact acknowledgement, kind of a "we both knew what this was" end to an affair.[45]

According to these critiques, the reduction of friendship in Facebook is based on the dilution of friendship. As the next line of criticism shows, this dilution also has the side effect of producing noise.

Noise, or, 'Those god-damned apps!'
In one of my favorite quotes, Felicia Yonter writes, 'The noise of Facebook got to me one day, although it had been building gradually. The apps, those god-damned apps, and quizzes about nothing just got too tedious'.[46] Her use of the term 'noise' gets at a major category of criticism: that despite its claims to having filters and settings to prevent the social stream from becoming polluted, Facebook is now a noisy place. As Brian Fegter writes, 'In order to be heard above the crowd, you must yell. As more people yell, the noise morphs into a solitary static hum: a hum deafening to focus, yet silent of value.'[47] And Matthew Eaves adds, 'do I really want to see pictures of people I went to school with 20 years ago at a BBQ, be invited to play Mafia Wars by someone's Nan, or read about items for sale someone I know in Australia's friend is offering 12000 miles away at a bargain price?'[48]

Eaves's critique gets at a contradiction within Facebook. One the one hand, there is a logic of accumulation: get more friends, get more likes, get more comments. Quantify your social worth. While this accumulation offers users myriad pleasures (from the social to the narcissistic), it increases the flow of data through the system (which is precisely what Facebook wants), but it also leads to the noise that Yonter points out.

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44. Bruun, 'Why I Left Facebook'.
45. Hunt, 'Why I Left Facebook and Why Nobody Noticed'.
46. Felicia Yonter, 'Why I Left Facebook', Felicia Cago: Mental Meanderings, 11 February 2010, http://feliciacago.wordpress.com/2010/02/11/why-i-left-facebook/.
47. Fegter, 'Why I Am Leaving Twitter and Facebook'.
48. Matthew Eaves, 'Why I Left Facebook', Matthew Eaves, 14 January 2012, http://www.mattheweaves.co.uk/2012/01/14/why-i-left-facebook-2/.

I want to relate this to another common critique: that Facebook is addictive. There may be a way to understand this addiction metaphor in information theory terms. Judging from Facebook quitters' blog posts, finding meaning in noise is a time-consuming, yet compelling process, one they equate to being addicted. What compels users to constantly check Facebook if there is so much noise? Perhaps it is the promise of finding anti-noise – meaning – within the social stream. With so much noise within and without Facebook (advertisements, street sounds, small talk, smartphone ringtones, sales pitches), the constant search for meaning, for connection, becomes more and more freighted and difficult, and the high from getting a message or like becomes more and more fleeting. Like addicts building up a tolerance, it takes more and more meaning delivered faster and faster to cut through the noise, and yet in our anxious search for meaning we simply make more noise.

It isn't Real Life; It's Mediated

Similar to the complaints about noise, the template structure,[49] and emphasis on speed[50] found in Facebook has caused some Facebook quitters to point to its divergence from 'real life', even though the central claim of Facebook is that it is a place to live one's life (using, of course, one's real identity). To be sure, the meaning of 'real life' is contested and multifaceted. Regardless if we can or cannot define 'real life', at least Facebook quitters recognize the highly mediated nature of Facebook itself. As blogger qntm writes,

> It feels like sites like Facebook channel all of our free expression into neat, pre-moulded boxes. "Susie is a fan of writing!" "Ed is in love with Tina!" Dang it, show us the writing! Show us the love! It's like it's become impossible to express any relationship below "friend", and it's impossible to express any feeling below "is a fan of." It's like talking using corporation-manufactured language, in which all we can do is proclaim our fondness for a product, or else keep silent. It reduces everything to a binary love/don't love choice. Personality tests? Great! Answer all these questions, and we will tell you that you, like all humans, fall into one of these eight categories of people! Isn't that INFORMATIVE? Didn't you learn something?[51]

Multiple Facebook quitters have drawn attention to this mediated, constrained aspect of Facebook. While Twitter is known as explicitly a short-form medium due to its 140 character limit, Facebook would seem to allow for long-form writing and media such as blog posts or videos. However, Facebook quitters see in Facebook a 'short form culture'. R.D. Thompson decries glibness:

> I believe [Facebook] is a failure because it promotes the current cultural shortcoming of being glib. Anything you say, absolutely anything, must be kept short and stupid. I have had myriads of "friends" tell me that I was failing to be simple enough in statuses and notes. That I needed to keep it short and sweet. This is

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49. Kristin L. Arola, 'The Design of Web 2.0: The Rise of the Template, The Fall of Design', *Computers and Composition* 27.1 (March, 2010): 4–14.

50. Ben Agger, *Speeding Up Fast Capitalism: Internet Culture, Work, Families, Food, Bodies*. Boulder, Colorado: Paradigm Publishers, 2004.

51. qntm, 'On Leaving Facebook', Things of Interest, http://qntm.org/facebook.

not a good thing and will only continue to further a glib and careless society that has time only for sound bites and flashes of light. A society that has the attention span of a hummingbird.[52]

And Brian Z. Bub writes:

> This is my call: Make it longer. Read more books, essays, poems; write more; watch challenging movies and plays; have lengthy discussions with wise friends; learn an instrument or how to take a quality photograph; go for long walks (or runs or bike rides etc.) and spend time with your own mind without distractions. Spend time with difficult ideas, let them develop in your mind, take the time to articulate them in your own words. Fingerpaint. Whatever! Embrace the long-form in every way possible. We are more than status updates.[53]

In this line of critique, Facebook's highly mediated structure is contrasted with 'real world' activities and emotional expressions, seen as more nuanced and subtle than the highly constrained software offered by the social network.

It Just isn't Cool

Finally, I'm reminded of the character Cayce Pollard in William Gibson's *Pattern Recognition*. She is a 'cool hunter', paid to scour the globe for the bleeding edge of fashion and consumption. One could easily imagine Pollard losing her job now that we have Facebook; today's cool hunter might simply log into that site and observe what people in various subcultures are saying, or more likely, there's an algorithm being built to parse a database of subcultural utterances to find cool.

But I also think Pollard would have the last laugh at Facebook coolhunters (both human and machine), because Facebook may not be a collection of subcultures; Facebook might simply be a monoculture unto itself, and a decidedly un-cool one at that. Facebook quitter troutgirl sees this:

> The other day I was on Caltrain when the entire car filled up with drunk (or even worse, pseudo-drunk) Stanford undergrads going to some kind of stupid costume party. The thing that astonished me was how INCREDIBLY LOUD they were, and how INCREDIBLY LITTLE they had to say — nothing came out of their mouths but pre-chewed catchphrases. They also mentioned Facebook in like every other sentence. Then I realized that they WERE Facebook.[54]

One is reminded of America Online (AOL): how it went from being seen as a place where affinity groups could gather and chat about their subculture to being seen as a marker of technological backwardness. In other words, whatever might have been 'cool' about knowledge of the norms and languages of various affinity groups in AOL

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52. R.D. Thompson, 'Why I Left Facebook Forever', The Little Puritan, 18 December 2009, http://www.littlepuritan.com/journal/2009/12/18/why-i-left-facebook-forever.html.

53. Brian Z. Bub, 'We Are More Than Status Updates', Burning All Illusion, 25 September 2011, https://burningallillusion.wordpress.com/2011/09/25/we-are-more-than-status-updates/.

54. troutgirl, 'Leaving Facebook', Fishy Thoughts, 16 February 2009. http://troutgirl.wordpress.com/2009/02/16/leaving-facebook/.

gets subsumed into making jokes about having an aol.com email address.[55] For trout-girl and others who have left, having a Facebook account might be a marker of technological incompetence and a loss of cultural capital.

For his part, blogger John-Michael Oswalt argues we're seeing 'Peak Facebook':

> Back in my engineering classes we talked about Peak Oil and what it meant for the world. Now, I've been thinking much more about Peak Facebook and what it means for the internet and social networks. How much longer are you prepared to remain on Facebook?[56]

In this vein of critique, it is hard to top Timo Vuorensola's argument against Facebook:

> The thing is, I just don't like their style. FaceBook is like the hunkiest douchebag in the bar. You know the type, the guy with enormous muscles and fake tan and bleached teeth. He gets to act just as badly as he wants, but there's still always people swarming around him. Sometimes big online services just go into that path and never come back, and I don't need that kind of shit around me.[57]

Is Facebook the next AOL? Or the next Myspace or Friendster? What do those comparisons mean? In terms of internet trends, Facebook is certainly extremely popular, but of course so were Myspace and AOL at one time. It is hard to imagine Facebook fading away under the weight of its own popularity, but this sort of thing has happened before. It could – and probably will – happen again, and the story we tell about Facebook's rise and fall will likely be dominated by a narrative arc of coolness to cliché.

Conclusion: On Upping Our Critical Game

For those of us studying social media (or any area of social life), a blog post from cultural critic Sean Andrews provides us with a warning: 'If you are able to craft insights that the average blogger in that area now find completely commonplace – there is racism in US TV, women deserve equal rights, corporations are greedy – then you need to pick up your game if you are going to be considered a superior intellect'.[58] While it is easy to be cynical about proclamations that the web is a Habermasian public sphere, it certainly appears to be the closest thing we have to that ideal. With more people writing about culture, we get more and better critical insights. Turning to the object of this essay, considering the scope and power of the critiques written by these Facebook-quitting bloggers, it is clear that critics of social media housed in universities cannot rest on any laurels as they do their work. We have to 'pick up our game' in the face of the increased production of ideas.

55. For a comic book explanation of the cultural meanings of an AOL email address, see http://theoatmeal.com/comics/email_address.

56. John-Michael Oswalt, 'Why I Left Facebook', The Schipul Blog, 2 June 2010, http://blog.schipul.com/why-i-left-facebook/.

57. Timo Vuorensola, 'Why I Left FaceBook', Beyond the Iron Sky, 28 April 2010, http://blog.starwreck.com/2010/04/28/why-i-left-facebook/.

58. Sean Andrews, 'This Image, Which I've Liked for Some Time Because...', Breaking Culture, 1 August 2012, http://breakingculture.tumblr.com/post/28485650483/review-of-the-public-domain.

So, in light of the excellent critiques being produced in the blogosphere, what does it mean to pick up your game in terms of Facebook criticism? In my view, after this brief review of the blogosphere (and after reviews of the critical literature on social media I have done elsewhere), this means a few things.

First, we have to continue to place Facebook et al. in their greater political economic context. In part, this means historicizing Facebook. Why did we get to where we are? What relation does Facebook have to its predecessors, to failed projects, to media history, and to past and present regimes of accumulation? This would also mean a continued struggle with theories of value. Clearly, the neoclassical economics emphasis on subjective desires and pleasures of consumption play a major role in Facebook use. But of course, besides the core quantum of desire is the core quantum of (free) labor, and hence labor theories of value are needed. Ultimately, we need a theory of value that synthesizes desire and labor, subjectivity and objectivity, and materiality and immateriality. There is a rich political economy tradition that critics can draw on to do this work.

Next, we need a greater global context than these bloggers provide. Due to my own limitations, I only worked with blog posts written in English. Cross-cultural interpretations of work, value, and pleasure have to be analyzed. Critics supplied with time and resources can do this global work in ways that the majority of bloggers necessarily cannot.

Finally, the emerging field of software studies provides an impetus to push past the interface of Facebook to the underlying layers of code, protocols, APIs, and network topologies that support the social network. Again, this kind of work provides a richer context than we often get in either critical or blog-based analyses of social media.

Ultimately, in addition to placing Facebook et al. in their greater historical, cultural, and political economic contexts as well as critically interrogating their underlying software, to heed Andrews's warning, critics will have to remain attuned to the blogosphere: they will have to write blogs themselves, publish in open access journals that bloggers can access, cite bloggers who provide ideas, and in general, participate in the critical discourse that is slowly growing up outside the academy (or perhaps has been there all along). I hope that it is clear from this brief survey of blog posts from Facebook quitters that there is value in looking to blogs when one starts a critical project.

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**ILLEGAL ART
AND OTHER STORIES
ABOUT SOCIAL MEDIA
/
SIMONA LODI**

ARTISTS NEW MEDIA PEOPLE
FACEBOOK WEB ACTION
NETWORKS ACTIVISM USERS
ILLEGAL WORK PROJECT

● *Create Law*

to	*date*	*regarding*
Ms. Simona Lodi	28 May 2010	Worm's suicide machine /
Italy		Yes, this is illegal

BY E-MAIL (SIMONA.LODI@TOSHARE.IT)

Dear Ms. Lodi,

We represent Stichting Worm, a Dutch media arts foundation based in and operating from Rotterdam, the Netherlands.

It has come to Worm's attention that you, acting alone and/or in concert with Flyer Communication, Linux Club, FLxER.net, and/or FLV-Flyer Live Visuals are referencing, through the website located at http://www.liveperformersmeeting.net/, through the video installation to be shown at the Live Performers Meeting 2010 this Thursday 27 May 2010 through Sunday 31 May 2010, and at http://twitter.com/SimonaLodi/status/14284888601 my client and its Moddr_ lab project "The Web 2.0 Suicide Machine", without my clients express permission. The "Web 2.0 Suicide Machine" is protected by intellectual property rights, and as a result of the above mentioned behavior you are conducting yourself unlawfully toward Worm. As a consequence of your unlawful behavior Worm is suffering substantial damages.

Worm takes the protection of its intellectual property and the trust placed in it by its users very seriously. On behalf of Worm I therefore herewith summon you to immediately cease the above mentioned activity, and to provide us with a written confirmation that you shall desist in the future from similar infringing behavior.

If we have not received the required confirmation by **Saturday, May 29, 2010** at the latest, I hereby reserve the right of my client to initiate legal proceedings without any further notice.

Yours sincerely,
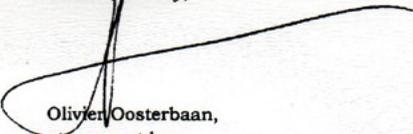
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This is the cease and desist letter that I received from WORM in Rotterdam in 2010. That year, I included their work *Suicide Machine* in an exhibition on 'Cease and Desist Art', focused precisely on the legal troubles that can arise in art, which I organised and presented in Rome at the Live Performers Meeting.[1] Obviously I did not ask the artists' permission to include them in the exhibition, as I considered it part of the curatorial concept.

It was all, of course, a hoax. The letter, the legal firm's website, and all the necessary paraphernalia to lend credibility to the affair was created by the WORM collective with the complicity of Florian Cramer. It was a joke on the provocative joke contained in the concept of the exhibition. All the stories I tell in this article, however, are bona fide and true. My purpose, in fact, is to shine a spotlight on artists whose work is a response to social media and the Web 2.0, and by doing so explore the relationship between politics and aesthetics, and provide a critical analysis of the artistic possibilities that centralized social networks seek to exclude. The aim is to understand socio-cultural transformations in the fields of art and technology in social space and what new forms of engagement and participation have developed, providing an opportunity to reflect on new concepts of democracy that are emerging in our global media age. More specifically, this work focuses on three main movements, representing three different types of response by artists whose work challenges the Web 2.0: Illegal Art, Ironic Artivism, and Spatial Art.

Illegal Art

What I call Illegal Art[2] is otherwise known as radical art. Artists working in this field have produced artworks that target Facebook, Twitter, and other centralized social networks – not anonymously, but putting themselves on the front line. For some years now, it has become popular among digital artists to focus on illegal art practices; in particular, it has become common practice among new media artists to attack companies that sell people's privacy. A new form of art has emerged that can effectively be called

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1. Letter is viewable at, http://www.toshare.it/cease&desist/C&D_Worm.pdf. The official website of the exhibition *Cease & Desist Art: yes this is illegal!* is found at, http://2010.liveperformersmeeting. net/artists/SimonaLodi/performances/cease-desist-art-yes-this-is-illegal/.
2. Simona Lodi, 'Cease & Desist Art: Yes, this is illegal!' in Cary Hendrickson, Salvatore Iaconesi, Orianna Persico, Federico Ruberti and Luca Simeone (eds) *REFF – Roma Europa Fake Factory. La Reinvenzione del Reale Attraverso Pratiche Critiche di Remix, Mashup, Ricontestualizzazione, Reenactmen*, Milan: Derive e Approdi, 2010, pp. 30-40. Available at: http://www.romaeuropa.org/macme/?p=593&lang=it.

Seppukoo, 2009, Les Liens Invisible, website. Credits Graphic design & Communication parcodiyellowstone. Copyright Les Liens Invisible.

'Illegal Art', based on the capacity to provoke companies targeted by pirate artists, plagiarists, hackers, and troublemakers into sending out copious cease and desist letters.[3] Here we will take a close look at actions that have targeted companies like Facebook, Amazon and Google.

At the end of 2009, Mark Zuckerberg declared the end of privacy. The Facebook founder said it no longer made any sense to talk about online privacy. Social norms have changed, he claimed – just look at how profitable companies that base their business models on social networking and wikis have become.[4] Almost at the same time, Facebook blocked access of two applications to its system, *Seppukoo*[5] and the *Web 2.0 Suicide Machine,*[6] both of which invited users to close their accounts. The king of all social networks trembled before the threat of these viral suicide campaigns. For people who feel their time is being strangled by social networks and the mind-boggling procedures required to cancel their accounts, the applications turned the tables on Facebook, requiring users simply to insert their username and password and in an instant it was done. A farewell email personalized by the user would then be sent out to inform the user's network of the 'suicide', inviting friends to do the same and cast off their digital identity to discover what lies beyond virtual life. Both applications were a Web 2.0 evolution of the dear old worm virus,[7] but with the key difference that they were activated knowingly and voluntarily by the user, and they attacked the very system on which they were based, the social network, and not people's personal computers. Its logic had been turned on its head: rather than targeting users, it was users who chose to use the virus provided by the artists to assert their freedom, in an action of artistic appropriation of viral marketing strategies.

Mark Zuckerberg's lawyers claimed that everything users post on Facebook is the sole and exclusive property of Facebook, as they tried to halt an epidemic that in less than two months had led thousands of users to close their accounts. The mass suicide risked bringing the entire Web 2.0 to its knees. While the artists used their cease and desist letters to attract popularity, their projects made headway by exploiting snowballing media interest in the dominant position of corporations such as Twitter, LinkedIn and Netlog, and their abuse of such a position as concerns the management of user data,

3. A 'cease and desist' (C&D) is a request demanding that an individual or an organization refrain from a certain action or behavior or else face legal action. A cease and desist may take the form of an injunction or restraining order issued by a judge or government agency, in which case it has legal value, or the form of a letter sent by any individual, usually drafted by a lawyer.
4. Bobbie Johnson, 'Privacy No Longer a Social Norm, Says Facebook Founder', *The Guardian,* 11 January 2010, http://www.guardian.co.uk/technology/2010/jan/11/facebook-privacy.
5. Les Liens Invisibles, official website of *Seppukoo* (2009): http://www.seppukoo.com.
6. Moddr_, official website of *Web 2.0 Suicide Machine* (2009): http://suicidemachine.org.
7. A worm is a stand-alone malware computer program that is self-replicating. It is normally spread by email as a file attachment to all or some of the email addresses saved and detected by the malicious software on the host computer.

which are never deleted from their servers. Thus virtual suicide turns you into a virtual zombie, as Gordan Savicic puts it,[8] which is a set of photos, friends and memories that float detached from the person to whom they belong, and who cannot delete them. Why is there no right to oblivion on the Web 2.0? Legal action forced Facebook out into the open, compelling the social network to admit that the photos, videos and personal information posted by users are the property of the corporation and not the people who provide them, raising various issues of socio-political import, such as the right to privacy, data retention practices and the difficulty faced in controlling one's own personal data. Adding a pinch of irony to it all was the clumsiness of Facebook's lawyers, who in demanding that *Web 2.0 Suicide Machine* cease and desist from the activity misdated the deadline by one year prior to the date of the letter, rendering it legally null and void. The artists' immediate response in their defense was to stress the fact that Facebook fails to eliminate from its systems information that does not belong to it, going against the express wishes of the true owners of the data, who choose to abandon Facebook. Not only does Facebook not protect the privacy of its users, it violates the right of people to choose how to organise their personal spheres freely and independently.

Web 2.0 Suicide Machine, 2009, moddr_ & Fresco Gamba, Gordan Savicic, Danja Vasiliev, Arjen De Jong/Buro Duplex, website. Produced by WORM Rotterdam. Copyright moddr_

Earning oneself a cease and desist letter has become the new frontier in art, a symbol of the cause for the freedom to create in the Corporation Era. Artists keen to take part go find themselves a good lawyer, rather than a good art dealer. What is going on with the future of art? What freedoms are these artists championing? Does it all have anything to do with the end of the technological utopia? How has business appropriated hacker values, exploiting open source principles, freedom and equality, and triggering the activist response? How did we come to all this? What was the cultural precedent? Ever since its beginnings, the overriding importance for the internet was to keep it free, as circulating information and the control of information is power. Having started with a Tech Model Railroad Club,[9] and with the logo, copyright and privacy bandwagons are exiting from the scene step-by-step .[10] This leads us to ask who, exactly, is the culprit? Cue to a court room. The hearing is in session. The lawyers are showing no mercy. The artists are in the dock.

Introducing the legal evidence:

®™ark (pronounced 'R-T-Mark' or 'artmark')[11] is a fake corporation established around 1996 in the United States, which funds projects designed to sabotage the new myths

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8.   Gordon Savicic, email message to the author, 10 April 2010.
9.   Steven Levy, *Hackers: Heroes of the Computer Revolution*, New York: Penguin Books, 1984.
10. Geert Lovink, *Networks Without a Cause*: *A Critique of Social Media*, Cambridge: Polity Press, 2012.
11. ®™ark Inc., official website: www.rtmark.com.

of the digital age. Its subversion tactics involve the creation of sensational, though fake, scoops published in the press and media. In March 1996 it launched *Digital Hijack*[12] by etoy, which targeted the AltaVista search engine for its manipulation of online searches and restriction of true freedom. This was the first strike against a corporate shell that was routing people along pathways controlled and steered by advertisers. As the dragnet closed, user fish were left trapped inside. The response was to hijack the pathways. Masked as authentic hijackers, etoy crossed the line of the law to virtually hijack the search engine's users, who, oblivious to the joke, found themselves in the nowhere land of ghost sites, hostage to a bunch of IT pranksters claiming responsibility for the hijack and calling for the release of social engineering maverick Kevin Mitnick. The work marked a crucial turning point through its use of illegal practices, transforming the entire activist side of Net Art into Illegal Art. According to Franco Mattes of 0100101110101101.ORG:

> It's not the artists who go out in search of legal troubles; nobody wants to be sued. If the number of lawsuits has increased it's because people have got used to calling on lawyers to resolve problems, creating even more in the process. And it's not just about corporations; we've been "attacked" by a publishing company, by a museum, by the Vatican – they're the real pirates of the Web.[13]

I am not really sure whether such a definition of Illegal Art is actually necessary, or how long it will survive in art history. For now, though, its purpose is to identify an extremist fringe that has turned breaking the law into an art form. The streets have become a dead capital, and the old bunkers of power (the seats of government, corporate headquarters) are empty simulacra.[14] Electronic information flows need to be tracked and traced so as to challenge those in command today who decide, without any democratic mandate, the fates of people in the name and on behalf of the profits that the centralization of the Web 2.0 delivers through its free-wheeling ethic. Illegal Art takes up the politics and voices the protests of activist movements. After becoming hackers, the artists have become activists, lending to anti-globalist dissent the rupturing force art can have when it becomes a tool for social change. This brings us to the concept of 'social'. In particular, the 'social' in 'social networks', which have no authentic social cause, but rather, are gilded cages that are a goldmine for those who exploit the people cooped up inside them. Protests have therefore shifted towards the public consequences of Web 2.0 which people will carry with them throughout their lives.

In recent years – Lovink identifies 9/11 as the start of a strategy of social terror and the defamation of the free and egalitarian internet[15] – the spectre of piracy has replaced the utopia of internet freedom with the vulnerability faced by users as a consequence of unrestricted access. In the wake of this shift, repressive regimes have clamped down on what is seen to be a threat to the information economy. Content industries have hired armies of lawyers to stop free exchange of any kind outside the walled gardens of Facebook, Twitter, LinkedIn and the likes, transforming the exchange-based economy

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12. *Digital Hijack* (1996), by etoy: http://www.hijack.org.
13. Franco Mattes, email message to the author, 27 April 2010.
14. Marco Deseriis and Giuseppe Marano, *Net.Art: L'Arte della Connessione*, Milan: Shake Edizioni, 2003, p. 154.
15. Geert Lovink, *Networks Without a Cause*, p. 40.

permitted by the internet into a neo-liberal marketplace. Corporations, especially the big, multinational conglomerates, have come to be known as 'data lords' for their ability to control what can be seen, heard, read and done online, by whom, and how. The rationale underlying Illegal Art is that of the culture jam. Culture jamming aims to disrupt consumer experience so as to reveal the true meaning of a message that has been centralized by the powers that be and is falsely presented as shared when in fact it is designed to influence us as consumers. The artists' aim is to show just how influential big corporations are through their control of the media, while laying bare their Achilles' heel. A thread of posts on the nettime mailing list[16] discussing the cease and desist letters sent to *Seppukoo* and *Web 2.0 Suicide Machine* led to the dusting off of an old project by UBERMORGEN.COM, when Hans Bernard suggested spamming Facebook with fake injunctions and restraining orders via *The Injunction Generator*[17] – much more effective than traditional cease and desist letters in creating legal pressure and turning up the heat. *The Injunction Generator* was created in 2003 in response to the legal furor over the *Vote-Auction* website.[18] Produced by ®™ark as a commercial website 'bringing capitalism and democracy closer together',[19] *Vote-Auction* was a media hacking performance which offered U.S. citizens the chance to sell their presidential vote to the highest bidder during the 2000 U.S. presidential elections of Al Gore versus George W. Bush. Restraining orders and injunctions soon shut down the website.

By providing a critical label to collect together various types of artwork that flout the law, the umbrella term 'Illegal Art' helped bring out into the media spotlight all those artists prepared to stick their neck out. As many battles were won, a change for the better was seen. Since the image of the artist sits comfortably alongside the idea of pranks and irreverent subversion, attracting legal action can be seen as something of a trophy. This is not, of course, to underestimate the seriousness of the consequences for the artists, or the burden of having to pay lawyers and dedicate time to litigation. Nevertheless, for the artists it proved a great opportunity for visibility. In interpreting legal action as a trophy, Paolo Cirio explains that it is 'evidence of having raised a problem concerning freedom of speech. I see it more as the conclusion of an action rather than its ultimate purpose'.[20] Or as Guy McMusker, spokesperson for Les Liens Invisible, puts it:

> In recent months we have been thinking a lot about what tone to give the supporter campaigns for works of ours that have attracted injunctions, cease & desist letters and prosecution. Striking a balance between martyrdom and the necessity of those actions being taken has always been of critical importance for us. The message that is very often conveyed, no matter what stance we take, is that there is a convenient, easy and safe way to express yourself and then there are things you just cannot do, for which we always end up becoming a living deterrent. The point is that an artist, especially a hacker, cannot bow to the rationale of power that lies behind these

16. Florian Cramer, 'Facebook Demands Cease & Desist for the "Web 2.0 Suicide Machine"', posting to the nettime mailing list, 13 January 2010, http://www.nettime.org/Lists-Archives/nettime-l-1001/msg00009.html.

17. *The Injunction Generator* (2003), by UBERMORGEN.COM, http://www.ipnic.org/.

18. *Vote-auction* (2000), by UBERMORGEN.COM, http://www.vote-auction.net/.

19. *Vote-auction* (2000).

20. Paolo Cirio, email message to the author, 28 April 2010.

machinations; by going beyond it, you inevitably attract injunctions and legal action. Therefore we don't believe so much in antagonism as a choice for making a stance; rather it is a necessity dictated by the desire for self-assertion, so we welcome turning the rationale of legal action on its head so that it becomes a trophy, if this can in some way incite people, rather than inhibit them for once, to question these so-called limits of the law.[21]

Last in order of appearance is the work *Face-to-Facebook*[22] by Paolo Cirio and Alessandro Ludovico, who stole the user profiles of one million Facebook users using software specially designed by them for the purpose. A professional job, if ever there was one! Putting this information together, they went one step further by importing and matching the profiles on a fake dating website (www.Lovely-Faces.com). As though reconstructing people's histories from scratch, they invented a virtual website that was fake, but built on real data. As people still tend to confine what they do online to the visual space of the screen, *Face-to-Facebook* questioned online privacy in practice, through one of the web's most iconic platforms. *Face-to-Facebook* was the final project of the series *The Hacking Monopolism Trilogy*, consisting of the works *Amazon Noir*, and *Google Will Eat Itself.*

Face-to-Facebook, 2011, Paolo Cirio, Alessandro Ludovico, website and mixed media installation. Copyright Paolo Cirio, Alessandro Ludovico.

Ironic Artivism

In 2010 Micah White, contributing editor at *Adbusters* and an independent activist, coined the term 'clicktivism'. He says: 'Clicktivism is the pollution of activism with the logic of consumerism, marketing and computer science',[23] where 'Its ineffectual marketing campaigns spread political cynicism and draw attention away from genuinely radical movements.'[24] It is 'activism degraded into advertising'.[25] He comments on how conveni-

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21. Guy McMusker of Les Lien Invisible, email message to the author, 29 April 2010.
22. *Face-to-Facebook* (2011), by Paolo Cirio and Alessandro Ludovico, http://www.face-to-facebook.net/index.php. See also, 'Face-to-Facebook, Smiling in the Eternal Party' in this reader, pp. 254-258.
23. Micah White, What is Clicktivism?, http://www.clicktivism.org/.
24. Micah White, 'Clicktivism is Ruining Leftist Activism', *The Guardian*, 12 August 2010, http://www.guardian.co.uk/commentisfree/2010/aug/12/clicktivism-ruining-leftist-activism.
25. Micah White, 'Why Gladwell is Wrong', *Adbusters*, Blackspot blog, 8 October 2010, http://www.adbusters.org/blogs/blackspot-blog/why-gladwell-wrong.html.

ent it is to be an activist without taking risks, seated comfortably at your desk instead of taking part in public sit-ins and seriously battling for a cause. Similarly he attacks the 'slacktivist' popularity of signing up to online petitions, which by unquestioningly adopting the methods of modern marketing are totally ineffectual, if not damaging to authentic activism. Exploiting the phenomenon of clicktivism, some artists have sought to make ironic use of such pseudo-activism to expose the absurdity of online petitions – what Slavoj Zizek calls 'interpassivity' or the illusion of doing something.[26] As White puts it elsewhere, 'Clicktivism is a Trojan horse, a tactical malware, […] What better way to cripple the revolutionary potential of a whole generation […] privileging a data-obsessed, metrics-oriented, technocratic approach which is closer to advertising than resistance'.[27]

Tweet4Action, 2011, Les Liens Invisible, website. Copyright Les Liens Invisible. Credits Tweet4Action. com is a 2011 commission of New Radio and Performing Arts, Inc. for its Turbulence website. It was made possible with funding from the National Endowment for the Arts. Copyright Les Liens Invisible.

The response of artists in this field has been to appropriate marketing campaigns for their own ends. In the work *Tweet4Action* by Les Liens Invisibles[28] – a tool to 'broaden your armchair activism horizons'[29] – the artists use the rhyming slogan 'Tweet for Action, Augment your Reaction' to encourage people to create their 'own insurrection' using the communications and image strategies of an advertising campaign. They incite slacktivists to action with the promise of becoming a leader at no risk, using the king of the social media protest movement: Twitter. Wonderfully tongue-in-cheek, the spoof actually gives people the tools to create their own protest campaigns. It also parodies the renowned U.S. website MoveOn.org, created in response to the impeachment of then U.S. President Bill Clinton, and which has earned its founders millions of dollars while colonizing activism with questionable technocratic methods. In one section of the *Tweet4Action* website, all it takes is a click to be taken through the process by a fun and friendly cartoon figure representing the guiding image of the activist whose dream it is to be a tousle-haired rebellious type with a placard in one hand and a

26. Slavoj Zizek, 'The Interpassive Subject: Lacan Turns a Prayer Wheel', in Slavoj Zizek, *How to Read Lacan*, http://www.lacan.com/zizprayer.html.
27. Micah White, 'A Vision of Post-Clicktivist Activism', *Adbusters*, Blackspot blog, 26 July 2011, http://www.adbusters.org/blogs/blackspot-blog/vision-post-clicktivist-activism.html.
28. *Tweet4Action* (2011), by Les Liens Invisible, commissioned by turbolence.org, official website: http://www.tweet4action.com/.
29. See, *Tweet4Action* 'How It Works', http://turbulence.org/Works/tweet4action/how-it-works.php.

megaphone in the other. The cartoon figure is an activist-style copy of a comforting advertisement for selling something safe – like a protest campaign on Twitter straight from your own smartphone. Admittedly, it does make you want to give it a go, to start your very own personal campaign of absolutely no interest to anyone at all, perhaps like the majority of posts that appear on Twitter. But that might just bring you face-to-face with the Twitter Cops,[30] vigilantes who for years have fought to stop people tweeting things nobody could care less about, like 'I'm taking a shower' or 'The cat's asleep'.

Repetitionr.com, 2009/10, Les Liens Invisible, website. Copyright Les Liens Invisible. Commissioned by Arnolfini Museum, Bristol. Copyright Les Liens Invisible.

A sister project to *Tweet4Action*, created by the same duo of artists,[31] is *Repetitionr*,[32] an online petition service. *Repetitionr*, commissioned by the Arnolfini Gallery in Bristol, enables people to start their own petition, gathering together a million fake, though plausible, signatures and sending them to the authorities straight from home. It parodies the illusoriness of the belief that corporate, centralized social networks can rally the democratic spirit that characterized the utopias of the early life of the World Wide Web. Instead, social networks show the failure of representative democracy, as they have proven to be utterly ineffective from a political, social, and economic point of view. They also mark the emptiness of participatory democracy, as they create the illusion of taking action and being part of a decision-making process that ultimately does not give any cause a concrete outcome. For Les Liens Invisible, 'In the post-idealist era the success of a campaign is increasingly reliant on instantaneous statistical surveys promoted to shift opinion towards defined positions'.[33]

According to Geoff Cox, who curated *Repetitionr*, in parodying the very concept of democratization,

> The project reflects the acknowledged need for new institutional forms that challenge existing systems of governance and representational structures, as a blatant expression of non-representational democracy. [17] The approach challenges the limits of representational democracy and the discourse of neo-liberalism in general, offering a means to rethink politics within network cultures. If this is an example of over-identification with real existing participatory democracy, then the provocation is that we need to develop far better strategies and techniques of organisation.[34]

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30. See, http://www.youtube.com/watch?v=xIWjInz8fqA&feature=fvsr.
31. Les Liens Invisibles is Clemente Pestelli and Gionatan Quintini.
32. *Repetitionr* (2010), by Les Liens Invisibles, http://www.repetitionr.com/.
33. Les Liens Invisibles, 2010, http://www.lesliensinvisibles.org/2010/05/repetition-com-tactical-media-meet-data-hallucination/.
34. Geoff Cox, 'Democracy 2.0', http://www.anti-thesis.net/contents/texts/democracy.pdf. Note [17] in the original text reads: '"Non-representational democracy" describes democracy decoupled from sovereign power, as discussed in Ned Rossiter's *Organized Networks: Media Theory, Creative Labour, New Institutions.* Rotterdam: NAi, in association with the Institute of Network Cultures, Hogeschool van Amsterdam, 2006, 39. Rossiter also cites Paolo Virno's *The Grammar of the Multitude*. New York: Semiotext(e), 2004'.

That provocation has been taken up by many artists who work on the development of new networks and new forms of participation.

Spatial Art: Alternatives in Social Media

While some artists set their sights on 'clicktivism', aiming their weaponry against the useless protest network that thrives on the internet, others focus their work on designing and promoting alternative spaces for expression. Artists who use augmentation, information and immersion in specific contexts, both in public and private spaces, without authorization, aim to create interventionist actions and collective experiences within an experimental, augmented framework, and alternatives to social media, by occupying collective space with new forms of collective communication. One of the results of all of this is 'Spatial Art',[35] which incorporates many of the aspects involved in developing new forms of social media.

In Spatial Art, artists play on the ambiguities in defining what reality is – how it is perceived, felt and detected, and how it is possible to evert the social network into physical social space. Recently Gibson went on the record to say, 'Now cyberspace has everted. Turned itself inside out. Colonized the physical'.[36] Decentralized social networks have enormous potential to develop offline and bring new forms of civic engagement into collective space. *The Invisible Pavilion*[37] is one such example; an exhibition organized using social media through a blog. The aim was to set up a joint protest with the artistic collective Manifest.A.R. within the spaces of the 54th Venice Biennale. *The Invisible Pavilion* was an uninvited, experimental experience of squatting in the exhibition spaces of the Biennale. It itself was not a social network, but the way the exhibition was curated can be considered a model format for social media. The idea was not to use the augmented space to reproduce the same curatorial scheme as the visible Biennale. Rather, artists were asked not for one piece from a collection but for a 'stream' of pieces, which they unleashed on the Biennale at their leisure through blog posts. The connections and relationships between the streams spread to fill the Venice Biennale, in particular the Giardini concourse, with social media, as it was natural for the artists to dialogue spontaneously with the other artists and people sharing the same space. *The Invisible Pavilion* project led to a new partnership with the artistic collective Manifest.AR and their *Venice Biennale 2011 AR Intervention*. Together a format was built that stepped up the interventionist component of the projects. The curatorial experiment helped us understand how to make the most of augmented space to create a new sort of network.

Other artists are also exploring the potential of new forms of social media. Sander Veenhof's work particularly focuses on this field, as he himself explained in an interview with Kevin Holmes:

> I've foremostly been exploring the domain of dynamic multi-user augmented reality, by which I mean the non-static placement of content into the global virtual public

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35. Simona Lodi*, 'Spatial Art'*, *Leonardo Electronic Almanac. Not Here Not There,* forthcoming, 2012.
36. William Gibson, 'Google's Earth', *The New York Times*, 31 August 2010, http://www.nytimes.com/2010/09/01/opinion/01gibson.html?_r=2.
37. *The Invisible Pavilion* (2011), by Les Liens Invisibles and Simona Lodi, http://www.theinvisiblepavilion.com/.

space: a parallel reality with a radical lack of any kind of boundaries. I've been creating tools and mechanisms to open up this virtual space to anyone wanting to contribute, as with the Cityshapes[38] project in Dortmund, Germany. And to highlight what extent this new hybrid reality stretches out, I co-organized an uninvited AR guerrilla exhibition[39] within the walls of the MoMA in New York. Taking that approach one step further, Mark Skwarek and I launched virtual Twitter-connected items inside the Pentagon and inside the Oval Office of Barack Obama, creating a public communication hotline straight to the president's desk.[40] If an iPhone were to be allowed inside the White House, that is.[41]

Cityshape Dormunt, 2010, Sander Veenhof, augmented reality toolkit. Copyright Sander Veenhof.

Tamiko Thiel's *mARp My City*[42] is a new work in progress to create a crowdsourced narrative for a city. *mARp* is a term coined by Thiel meaning 'map with Augmented Reality'. The idea is for participants to go to their favorite sites in a city and place augments and a brief text there using their smartphones. Once the augments have been placed, anyone can view them at the site through their smartphones, take screenshots and upload them onto the *mARp*. The augments are also marked on an interactive online map enabling anyone on the internet to view documentation of them, but to experience the augments, people have to visit the sites for themselves. Jonathon Baldwin has instead created 'social maps for wireless community networks' through the project *Tidepools.*[43] The map system he has developed is what he calls the result of a 'Ushahidi' meets 'The Sims' map interface for local needs and culture, to provide and sustain low-cost internet mesh networks'.[44] The project highlights the importance of

38. *Cityshapes*, by Sander Veenhof, http://www.sndrv.nl/cityshapes/.
39. *Augmented Reality Art Invasion* (2010), by Sander Veenhof, http://www.sndrv.nl/moma/.
40. *Infiltr.AR* (2011), by Sander Veenhof, http://manifestar.info/infiltrar/. See also http://www.youtube.com/watch?v=wyEy2DLu7Wk.
41. Kevin Holmes, 'User Preferences: Tech Q&A With AR Visionary Sander Veenhof', The Creators Project, 17 August 2011, http://thecreatorsproject.com/blog/user-preferences-tech-qa-with-ar-visionary-sander-veenhof.
42. *mARp My City* (2012), by Tamiko Thiel, http://www.mission-base.com/tamiko/AR/mARp-My-City.html.
43. *Tidepools* (2011), by Jonathan Baldwin, http://tidepools.co/.
44. *Tidepools* (2011).

maps today – not just any kind of map though, but maps that are crowdsourced and designed to drive social change. The project is based on the implementation of a wireless local area network and a game-inspired interface.
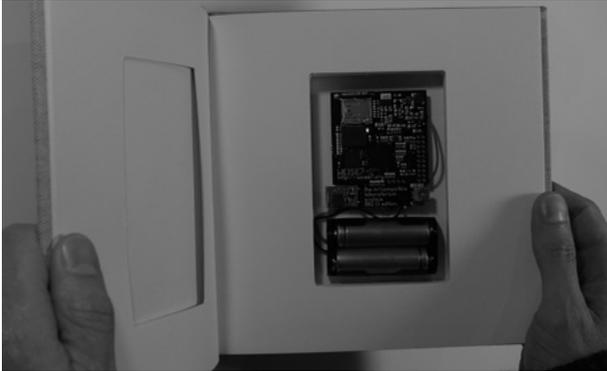
The Weise7 in/compatible Laboratorium Archive, 2011, *internet independent* wireless server, computer, the book, Weise7 - Servando Barreiro, Brendan Howell, Julian Oliver, Bengt Sjölén, Gordan Savicic, Danja Vasiliev. Copyright Weise7.

Another project based on mesh technology, created by the Weise7 collective, takes the shape of a book that acts as an internet-independent wireless server. Run by a portable, custom-made Wi-Fi device, *The Weise7 in/compatible Laboratorium Archive*[45] is a record of the Weise7 Studio for Labor Berlin 8, featured at transmediale 2011. This clever little object is notable both for its utility and for the aesthetic choice of giving it book-form, considering that books were one of the first analog archives to be digitized.

Tales of Techno-activism and Turning Business on its Head

Reflecting on the new concepts of democracy that are emerging in our global media age, it is interesting to note that in the lead-up to the Occupy Wall Street protests, radical thinker Micah White called on 'culture jammers, augmented reality game designers, live action roleplayers, revolutionary flashmobbers, clandestine street artists and activists from the future' to 'show us that what comes after clicktivism is a people's revolution'.[46] That call was answered by many such creative types. Augmented reality, for instance, was used by artists such as Patrick Lichty, Will Pappenheimer, and many others for the Occupy Wall Street demonstrations. It shows that new revolutionary work by artists coming out of the centralized Web 2.0 is confronting and spreading throughout society.

The appropriation of consumerism, marketing, and advertising strategies by artists working on new forms of decentralized social media is a response that Tatiana Bazzichelli sums up as, 'Don't hate the business, become the business'[47] – playing on the

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45. *Weise7 in/compatible Laboratorium Archive* (2012), by Studio Weise7 - Danja Vasiliev, Julian Oliver, Brendan Howell, Bengt Sjölén, Gordan Savicic and Servando Barreiro, http://weise7.org/book/.
46. Micah White*, 'A Vision of Post-Clicktivist Activism'.
47. A kind of motto that Tatiana Bazzichelli is known to use. See also, 'Disruptive Business as Artistic Intervention', in this reader, pp. 269-273.

famous line 'Don't hate the media, become the media' by Jello Biafra, musician and founder of San Francisco punk rock band Dead Kennedys. This approach to activism critically embraces the ideology of marketing to use it against itself, attacking it with the very same advertising tactics and market research techniques used to sell soap, with a view to promoting social movements built on more brilliant solutions. An example is the decentralized application developed by Salvatore Iaconesi for activists during street demonstrations, designed to be citizen-centric.[48] The app is currently only available for activist groups, encouraging drastic action for a real social revolution. It works as a platform that captures information from a range of social networks, such as Flickr, Instagram, FourSquare, Facebook and Twitter, and processes it using natural language analysis to understand what the messages are saying. The system counts the messages evoking danger and those suggesting the situation is safe, and 'synthesises it into an easy-to-read interface'.[49] Users simply point their phone in a certain direction; areas suggested to be dangerous show up in red, safe areas in green. The system harvests the emotions of people, the way they express themselves through natural verbal communication, not by following a hash tag. It was tested during the UK riots in 2011, as well as at student protests in both London and Milan, as a real-time system for environmental and social change using digital ethnography studies.

We Need Something, 2012, Will Pappenheimer, augmented reality, located over Queens, New York City, smart phone screenshot. Copyright Will Pappenheimer.

All these artworks demonstrate that artists are directly engaged in the issue of what exactly is the 'social' in social media,[50] using techno-activism to usher in new forms of equality and social change. Bearing in mind that it is intrinsic to the nature of technology that it should fuel change above and beyond the control that we believe we have over it, it is imperative that we ask ourselves if this really is the sort of 'smart society' that we want and what the future holds in store? We need to take a critical and consistent approach to technology so as not to support and adopt the wrong solutions. It is in this way that it is possible to see techno-activism accomplishing an emancipatory, egalitarian social revolution that is decentralized and which faithfully embodies the social uprisings and true wishes of the people, instead of reflecting the ideology of consumerism, marketing and advertising.

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48. *App for Activists* (2012), by Salvatore Iaconesi (Art is Open Source), presented at TED Global 2012, http://www.artisopensource.net/2012/06/14/radical-openness-art-is-open-source-at-ted-global-2012/.
49. *App for Activists* (2012).
50. Geert Lovink, *Networks Without a Cause*.

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FACE-TO-FACEBOOK,
SMILING IN THE ETERNAL PARTY

/

ALESSANDRO LUDOVICO
AND PAOLO CIRIO

FACEBOOK   SOCIAL   PEOPLE
VIRTUAL   IDENTITY   FRIENDS
SPACE   PRIVATE   PARTY
IDENTITIES   DATA   PICTURE

Social networking is naturally addictive. It's about exploring something very familiar that has never been available before: staying in touch with past and present friends and acquaintances in a single, potentially infinite, virtual space. The phenomenon challenges us psychologically, creating situations that previously were not possible. Before the rise of social networking, former friends and acquaintances would tend to drift away from us and potentially become consigned to our personal histories. Having a virtual space with (re)active people constantly updating their activities is the basic, powerful fascination of the social network. But there's another attraction, based on the elusive sport (or perhaps urge) to position ourselves. The answer to the fundamental identity question, 'who am I?', can be given only in relation to the others that we interact with (friends, family, work colleagues, and so on). And the answer to this question seems clearer after we take a look at our list of social network friends.

So an intimate involvement and (endless) questioning of our online identity (often literally juxtaposing with our physical one) is perpetrated in the social networking game. But social network platforms are not public organizations designed to help support social problems but private corporations. Their mission is not to help people create better social relationships or to help them improve their self-positioning. Their mission is to make money. Economic success for these corporations rests on convincing users to connect to the several hundred people who await them online.

The market value of these companies is proportional to the number of users they have. The game can often translate into a form of social binging in which the number of friends a user has is never enough to satisfy. But what kind of space is Facebook? Facebook is not home – it is way larger and more crowded. And it's not the street, because you're supposed to know everybody in your space. Facebook is an eternal, illusory party, under surveillance and recorded for all time. Its structure invites you to first replicate and then enhance your real social structures, replicating your experiences on your own personal 'screen space'.

In this unending party, you meet and join old and new friends, acquaintances and relatives. As with most parties everything is private, or restricted to the invited guests, but has the potential to become public, if accidently shared. Here the guests' activity and interests are also recorded through their posts in different formats and media (pictures, movies, trips, preferences, comments). It's an induced immaterial labor with instant gratification. Guests produce content by indirectly answering the question 'who am I?' and they get new friends and feedback in the process.

FACEBOOK.COM NETWORK

PHP + DOM PARSER SCRIPTS

NETWORK CONSISTENCY TUNING

NETWORK CONSISTENCY TUNING

SUCKER OF PROFILES
FOR EACH 8 PUBLIC FRIENDS
FINE-TUNING OF RECURSIVE LOOP
ON: URL, LOCATION, KEYWORD

REMOTE ANONYMOUS SERVER

PHP + MYSQL

**UPDATING
DATA RELATIONS
DATABASE
SCRIPTS**

**DATABASE OF 1M. PROFILES
- PROFILE PICTURES JPG
- NAMES AND SURNAMES
- GROUPS, FANS AND LIKES
- NETWORK RELATIONS**

LOVELY-FACES.COM

SEARCH PROFILES FOR
FACIAL EXPRESSIONS
GENDER, LOCATION
AND KEYWORDS

**MANUAL
FACIAL
CHECK**

**1M. JPGS
FACE RECOGNITION
CROP PICTURES
RESIZE PICTURES**

**RECOGNITION
OF FACES / NOISE
TOLERANCE
TUNING**

**MANUAL
FACIAL
CHECK**

**250K. JPGS
GENDER RECOGNITION
THROUGH FACIAL ANALYSIS**

**SAMPLE OF
70 MALE AND
70 FEMALE
FACES SELECTED**

**250K. JPGS
EXPRESSION RECOGNITION
THROUGH FACIAL ANALYSIS**

**40 SAMPLES OF 6
DIFFERENT FACIAL
EXPRESSIONS SELECTED
FOR BOTH GENDERS**

LOCAL WORKSTATION

MATLAB + NEURAL NETWORK

In fact, Facebook's subliminal mantra seems then to be 'be personal, be popular, never stop'. It has even gone so far as to make it difficult to notice when a friend closes their account (you need to check your list of friends to have any idea). The more successful (and crowded) the party, the more the private funders are happy to put money into it. The price the guests are unconsciously paying is that they are giving away their (constantly updated) virtual identity. Guests, in fact, organize their own space, and therefore their own 'party', offering the party owner (Facebook) a connected, heterogeneous group of people who share interests.

As such they offer what can be termed 'crowdsourced targeting' – the indirect identification of people's targets and desires by the users themselves. In fact the spontaneously posted data provides an endless (almost automatic) mutual profiling, enriching, and updating of the single virtual identities, in a collective self-positioning. But can profile data be liberated from Facebook's inexorable logic? The answer is yes, but it's important to focus on the core of the Facebook profiles and see how they are recognized as virtual identities.

First, the profiles sublimate the owners' (real) social actions and references through their virtual presences. Second, they synthesize their effectiveness in representing real people through a specific element: the profile picture. This picture, an important Facebook interface, more often than not shows a face, and a smiling one at that. Our face is our most private space and simultaneously the most exposed one. How many people are allowed to touch your face, for example? And generally speaking, the face is also one of the major points of reference we have in the world.

There are even special regions of the human brain, such as the fusiform face area (FFA), which may have become specialized at facial recognition.[1] Faces are now so exposed that they do not remain private, but are thrust into the public domain and shared (they can even be 'tagged' by other people). So any virtual identity (composed of a picture of a face and some related data) can be stolen and become part of another identity, through a simple re-contextualization of the same data.

Furthermore, face recognition techniques can be applied to group vast amounts of Facebook pictures. This process is also quite paradoxical, because the surveillance aspects (face recognition algorithms are usually used together with surveillance cameras) here are not used to try to identify a suspect or a criminal, but to capture a group of people with similar somatic expressions. The resulting scenario is that different elements forming the identities can be remixed, recontextualized and re-used at will. Facebook data turns into letters of an unauthorized alphabet to be used to narrate real identities or new identities, forming new characters on a new background.

And this is a potentially open process that anybody can undertake. It becomes more tempting when we realize the vast amount of people who are smiling. When we smile in our profile picture, we are truly smiling at everyone on Facebook. So any user can easily duplicate any personal picture on his/her hard disk and then upload it somewhere

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1.   Wikipedia, 'Fusiform face area', 5 August 2012, http://en.wikipedia.org/w/index. php?title=Fusiform_face_area&oldid=505913139.

else with different data. The final step is to be aware that almost everything posted online can have a different life if simply recontextualized.

Facebook, an endlessly cool place for so many people, becomes at the same time a goldmine for identity theft and dating – unfortunately, without the user's control. But that's the very nature of Facebook and social media in general. If we start to play with the concepts of identity theft and dating, we should be able to unveil how fragile a virtual identity given to a proprietary platform can be. And how fragile enormous capitalization based on exploiting social systems can be. And it'll eventually mutate, from a plausible translation of real identities into virtual management, to something just for fun, with no assumed guarantee of trust, crumbling the whole market evaluation hysteria that surrounds the crowded, and much hyped, online social platforms.

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**ON PLEASELIKE.COM
AND FACEBOOK BLISS
/
LOUIS DOULAS
AND WYATT NIEHAUS**

FACEBOOK ROZENDAAL VIEWER
CLICK PLEASELIKE BLISS
ANTONELLIS BUTTON WEBSITE
SOCIAL LIKING VIEWERS GESTURE

Pleaselike.com

Pleaselike.com is a browser-based artwork by Rafaël Rozendaal made in 2010, consisting of an entirely white web page save for an embedded Facebook classic-blue thumbs up Like button positioned in the center. To the right of the button is a small Facebook icon and next to it, the names of two Facebook friends along with an ongoing number tally of 'others [who] like[d] this'. Accompanied below this tally is a display of six randomly generated Facebook friends.[1]

On October 27th 2011, the first version of this essay had been written, with the number of likes recorded at 18,085. Since then, the website has gained an additional 60,941 likes, and currently stands as of this date, November 21st, 2012, at 79,026 likes and counting. In 2011, for Facebook users who had yet to click 'Like', the following statement was generated: 'Be the first of your friends'. Now no such statement is displayed. Additionally, viewers who aren't Facebook members, or not logged in, will encounter the following message: 'Sign Up to see what your friends like'. It seems likely then that *Pleaselike.com*'s display interface will continue to change as long as Facebook continues to modify itself.
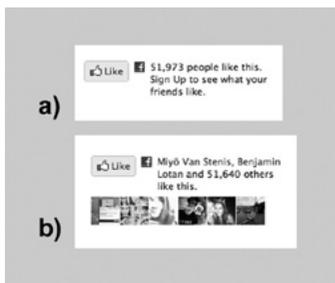
Rozendaal's website presents the viewer with an encouragement to submit to a seemingly undemanding request. And with nothing apparently at stake in the viewer's relationship to this request, either X clicks or X doesn't click. So, the viewer clicks and accepts, enlists in Rozendaal's playful game, chooses to be established as a 'liker', and perhaps proceeds to check their Facebook timeline to witness the immediate result of this action, then maybe continues onto the next website in their surfing queue. However, the relationship concludes at this point. Suppose, though, that the viewer *doesn't* click. What happens then? Why would *anybody* refrain from clicking?

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1. This description is accurate only if the viewer is a Facebook member and logged in while viewing the website. The artwork can be found at: http://pleaselike.com/.

One reason may point to the viewer being of the 'private' type, not wanting the results of their click to show up on their Facebook profile. However, anyone can hide stories like this from their timeline by configuring a simple setting in their privacy settings (alternatively via the 'Edit' or 'Hide all likes activity' tab). *Pleaselike.com* would still receive the user's 'like', but none of their Facebook friends would see this activity. Another reason may point to the viewer's unwillingness to forgo privacy, though again this tactic is thwarted: even if the viewer avoids clicking, their information will still be accounted for and collected by Facebook for merely just visiting the page.[2] Why else, then, wouldn't someone want to click and make Rozendaal's work 'complete'? Here we can postulate four theories:

– They aren't familiar with the *Pleaselike.com* site and never actually
cross paths with it.
– They express disinterest, moving on without further dispute.
– They express disdain for the artist by refusing to 'participate'.
– They wonder what it means *not* to click.

Without having access to the statistics of clickers to non-clickers, unique, and re-turning visitors, etc. the point of extending this thought is to illustrate that maybe the typical viewer doesn't always undergo such hypotheticals when confronted with the website. Or at least that: if they *do not* adhere to any of the above hypothetical situations they most likely have clicked, or will click 'Like'. The general lack of threat 'liking' poses and the briefly satisfying – if not mediocre – moment Rozendaal's button offers (the chance to be part of the 'others', to join one's peers and not feel left out, to be part of a potential artwork, etc.) only solidifies the motivation to click – at least this is what I'd like to suggest. So, 'liking' here then becomes the content itself, the viewer liking to fulfill the site's only existence, bridging the gap of intention the artist has built. By liking, the liker symbolically affirms the gesture of liking itself – a recognition of a recognition, while in the process, whether intentional or not, generates symbolic capital for the art-ist and data for Facebook. By not clicking, a viewer might refuse to contribute to an accumulation of 'likes' but still indirectly contributes to Rozendaal's website traffic, and furthermore is accounted for by Facebook in terms of information. In the end don't the viewer and the liker become one and the same?

The Facebook Like button is implemented on websites and blogs across the internet[3] as an expanded way to maintain and measure the success or impact an entity, or specific piece of content has, or perhaps ultimately doesn't. Generally speaking, the more 'likes' someone or something gets, the more potential viewership, which in turn – depending on interpretation – results in higher appeal, relevancy and even influence. From the user point of view, 'liking' symbolically signifies a preference or taste: a like-

2. Arnold Roosendaal, Facebook Tracks and Traces Everyone: Like This!, Tilburg Law School Legal Studies Research Paper Series, 2010, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1717563; and Riva Richmond, 'As "Like" Buttons Spread, So Do Facebook's Tentacles', *The New York Times*, 27 September 2011, http://bits.blogs.nytimes.com/2011/09/27/as-like-buttons-spread-so-do-facebooks-tentacles/.
3. Of the top 10,000 websites in the world, 24.3% employ some form of Facebook integration. ('How many sites have Facebook integration? You'd be surprised', *Pingdom*, 18 June 2012, http://royal.pingdom.com/2012/06/18/how-many-sites-have-facebook-integration-youd-be-surprised).

by-like construction of a user's identity. However, other than the positive affirmation of the 'like', Facebook offers no other button for alternate expression. And Rozendaal's two interchangeable titles – the website url, *Pleaselike*, and the title 'please like' listed on his website – amplify these positive inflections by conjoining the word 'please' with 'like', thusly conveying a charitable tone. 'please like' suggests a modest call for action from the viewer, 'It's no problem, *really,* I can click'. However, because Rozendaal's Like button exists only for itself, in that there is no obvious supporting content to which it references[4], these two titles can also suggest a command, implying that the viewer must do something on the page, and what is there to do but to click the only clickable item? Without supporting content, Rozendaal's Like button points to itself, leaving one with a composition of numbers. Without disdain or disapproval, in this context 'liking' might be seen as an empty meta-gesture. And thus, *Pleaselike.com* embraces the normativity of Facebook and exploits it to an absurd conclusion.

Facebook Bliss

Utilizing the popular metaphor of the attention economy, the transaction between Rozendaal and his audience is fairly lopsided. For one party, this is simply an empty gesture and for the other, a self-referential form of publicity with high yields of attention. Inversely, this project can be compared to *Facebook Bliss*, a work by American artist Anthony Antonellis.

In *Facebook Bliss*, Antonellis offers his viewers piece of mind by framing three notable Facebook icons (friend requests, private messages, and notifications) in the center of a screen. Nested just below these icons is a simple button prompting a click with the word 'Bliss'. Upon clicking, three new notifications appear – one in each category. With each subsequent click, the number grows.

Antonellis offers his viewers the pinnacle of virtual connectedness – an ever-growing cache of social influence. Where Rozendaal commits to the application of real social currency only for himself, Antonellis wants simply to replicate the comforting gesture of acceptance, internally, for each of his viewers. But perhaps the symmetry of these two works is in the banality of this gesture? *Facebook Bliss* is an idealistic appeal to the socially powerless. Just as Rozendaal leads us to an absurd end in *Pleaselike*, Antonellis leads us to the opposite absurdity – a circumstance where merely the symbolism connected with our networked sociality is enough to provoke a satisfying emotional response. However, Antonellis has not discovered a shameful detail of our unmitigated desire for social validation, but rather a nuanced account of what it means to desire in the late aughts.

Like much of Anthony Antonellis's work, *Facebook Bliss* is not an appeal to the cynical elements of networked culture, but rather an optimistic embrace of new technologies and how they come to affect us personally. His work often makes references to an internalized value of social media and emerging technology in a culture that is so rooted in concepts of social mobility and personal branding.

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4.   You can argue that while there is no visible content the Like button stands to support, it is, technically, supporting Rozendaal himself, however, this is still an *indirect* form of support.

Just as Rozendaal has created an isolated circumstance for his viewers to ruminate on the power of a symbolic action, Antonellis too has removed context. In *Facebook Bliss*, we are never meant to consider questions like 'who has added me?', 'what does this private message say?' or, 'to what event have I been invited?' Addressing these questions might stand only to trivialize the gesture. Removing such details liberates it from the burden of personalization. Antonellis offers us three simple symbols, which mean more and more to our networked society.

Facebook Bliss is a simple synthesis of how we categorize our desires for interaction in the 21st century. By presenting them in this tongue-in-cheek manner, Antonellis has ascribed the necessary brevity to a social circumstance that is exceedingly reflexive and self-aware. The piece takes full account of the breadth of emotional responses triggered by the variables of these simple symbols.

In total, *Pleaselike* and *Facebook Bliss* offer a spectrum of reactions to the symbols and gestures behind our everyday online exchanges. These keen manipulations of now ubiquitous icons are low-stakes invitations to explore and consider the value of our interactions online. Facebook is, for now, the ever-present social mediator of our time. Instead of critiquing this circumstance directly, both Rozendaal and Antonellis accept the framework but offer up a sincere reaction to its boundaries and limitations (on both ends).

Notions of personal and interpersonal are constantly in flux, on the web. *Pleaselike* and *Facebook Bliss* use this fluctuation very differently – and by doing so, offer to their viewers a gamut of interpretations of the Facebook framework that shapes our lives.

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**ART AFTER SOCIAL MEDIA
AS A REJECTION AND REFLECTION
OF FREE MARKET CONVENTIONS
/
BRAD TROEMEL**

SOCIAL   ARTISTS   MEDIA   WORK
PROPERTY   IMAGES   TIME
TELEVISION   PRIVATE   AUTHORSHIP

While the music, film, television, and print industries have each been radically over-turned by digital technologies, fine art remains locked in a transitional period, negotiating a complex and relatively new relationship with social media. On one hand exists a utopian vision for art on the internet: a world where intellectual property is part of a commons, where authorship is synonymous with viewership, and where the designation between art and everyday life is fluid. On the other hand is an unprecedented rise of artists applying managerial strategies to themselves, of artists conceiving their identity as a brand to be developed through Facebook, for instance. This is a world where today's 17-year-old creative arguably has a better handle on advertising techniques she can use to direct traffic to her Tumblr than our presidential candidates needed to have 70 years ago. Art after social media is both a shattering of art's traditional relationship to capitalism and the hyper-charged embodiment of it.

To qualify the idea that social media poses a challenge to the norms of art history, I'd like to start by identifying three conventions that are most threatened by art existing through social media.

1. Authorship must be attributed to a work of art
The last time in history authorship was unimportant was prior to the printing press. Marshall McLuhan said,

> The invention of printing did away with anonymity, fostering ideas of literary fame and the habit of considering intellectual effort as private property. The rising consumer-oriented culture became concerned with labels of authenticity and protection against piracy. It was at this time the idea of copyright was born.[1]

Art's history is now a series of aesthetic accomplishments abbreviated to first and last names.

2. Art is a form of property
Whether owned as a luxury investment, a civilizing tool for the middle class, a demonstration of aristocratic power, or a visual guide for religious narrative, art has always had an owner since the introduction of patronage.

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1.   Quentin Fiore and Marshall McLuhan, *The Medium is The Massage,* Berkely: Gingko Press, 1967.

3. Art must be placed in a context that declares it to be art

As many writers and theorists have suggested, art exists for discourses and people who recognize it as such. To this day, in museums and galleries we still cling dearly to the sanctity of all that appears in those buildings as being art and all that occurs outside of them as being part of everyday life. Artworks that are not found within institutions carry with them the formal and conceptual codes created by those institutions, just as dogs that run away from home can now be apprehended through invisible tracking devices beneath their skin.

These three mutually reinforcing conventions are what keep art tethered to being a commodity: all things that have an author are automatically a form of that author's property, property must be recognized in private contexts, and context is guided by authorship.

Then, like photography before it, social media was introduced and disrupted these rules by complicating where art exists. Postmodern theorists have long advocated an understanding of reality where there is no uniform vantage point, but a multiplicity of co-existing perspectives. This theory has real applicability when nearly every undergraduate art school student has a blog they are using to insert themselves in a historical discourse by creating online displays of their own work next to that of artists from the past forty years. Sometimes the perceptions of these different blog audiences overlap, though sometimes they remain separate. Online there is no more home base, no building or context that contains and describes art in a way that uniformly attributes meaning for all.

After photography, it became apparent that more people were viewing images of physical artworks in magazines, books, and videos than they were seeing in person. Similarly, through social media the majority of views an artist's work gets is not through her own website, but through the accumulated network of reblogs, links, and digital reproductions that surround it. One can think of this as the long tail of art's viewership. Unlike the previous mode of authorship, the divide between artist and viewer becomes negligible when viewers of social media are able to more powerfully define the context (and thus the meaning) of a work than the artist herself. To be an author isn't a fixed status but now a temporary role played alongside curator, promoter, and Wikipedia archaeologist.

The ease and speed of reblogging allows art to travel as far and quickly as its audience commands it to. Throughout this process the first bit of information to be lost from the artwork is often the name, title, and date. This information is occasionally omitted on purpose; a way for the savvy Tumblr owner to wink at her historically informed audience who are able to identify the work without textual description. Other times contextual information is omitted from art images because it was never included in the source, or because the image is being used for a purpose entirely unrelated to the artist's intentions. Here art is appropriated by non-artists as entertainment, office humor, a music video, or pornography. Murphy's Law dominates: art images will be used for whatever they can possibly be used for when placed online. Through social media, art is reintroduced as an object of everyday life, creating an infinite loop between the two distinctions.

Art's relation to property has changed not only in the sense that it is able to be used for a variety of new everyday purposes, but also in the way that an infinite number of alterations can be made to a digital file. Art historians are used to the slow, responsive process of Rauschenberg erasing de Kooning, but through image editing and social

networks the speed artists can respond to one another is at that of a real-time conversation. Portions of a work may be edited, added to, or re-arranged without destroying the original. Due to the balkanization of viewing audiences, many will inevitably interpret responsive artworks as originals – there is no home base.

To sum up this idea, the utopian potential for art online most idealistically views the near-infinite world of digital images as a kind of commons, a place where the value of art is not located in its ability to be sold or critically praised but in its ability to continue to be reused, remade, or reblogged for whatever purposes its network of viewer-authors find significant.

Without a traditional conception of property, authorship, or context in place, the work of artists using social media has transformed from a series of separated projects to a constant broadcast of one's identity as a recognizable brand. This is to say that what the artist once did by creating externalized products has been swapped for an internalization of artistic commodification, using tagged images and text to highlight one's self through humor, intellectualism, or camaraderie in social networks. The need to socially orient oneself has now been reversed from its normal position: today's artist on the internet needs an audience to create art, as opposed to the traditional recipe that you need to create art to have an audience. Posting work to the internet with no social network readily in place is synonymous with the riddle 'If a tree falls in a forest and no one is around to hear it, does it make a sound?' For young artists on the internet the answer to the forest question is 'no' – their work will easily go unnoticed, making their participation as a social brand an a priori necessity to contextualizing what they do as art. If Anton Vidokle suggested we are entering a period of 'art without artists', I'm instead suggesting we are present in a moment of artists without art.[2]

Due to the foregone conclusion that once released images of one's artwork online will be taken and used in whatever way possible, the new strategy of recognition is to contain conversation on one's *own* Facebook wall, Twitter feed, or YouTube comments. 'Follow me', 'Friend me', 'Subscribe and Comment' – these are the endless pleas of a branded generation of artists struggling to gain the greatest amount of attention as capital. While digital images make for a lousy form of private property, the attention an artist can accrue around herself through branding can be leveraged into a more traditional notion of paid success as seen through gallery exhibitions, magazine features, books, and speaking engagements.

The shrinking difference between social networking for the betterment of your art career and social networking as an art project unto itself may be part of a greater trend in our contemporary understanding of celebrity. Prior to reality television, the distinction between a celebrity's private and public life was tenuously kept but widely believed. Gossip magazines served to satisfy our lust for celebrities beyond the brief screen time we were able to spend with them as public figures. Though the narrative arcs created by gossip magazines intentionally resembled the plot lines of the movies and television shows their subjects starred in, the sensationalized nature of these publications

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2.   Anton Vidokle, 'Art Without Artists', *e-flux* 16 (May, 2010), http://www.e-flux.com/journal/art-without-artists/.

– disparagingly referred to as 'rags' – maintained an air of uncertainty over whether the private information being revealed in their pages was actually true or not. Reality television effectively banished these borders between public and private for the celebrities it created, ideally establishing a constant stream of people behaving as they would privately for the viewing of the public. The purportedly objective, documentary-style filming of people in everyday situations made the grainy, decontextualized still images of gossip magazines second rate material. The lure of real embarrassment, secrets, sex, violence, and all else quickly eclipsed the fictional characters portrayed by celebrities on sitcoms and other fictions, establishing a new dominance in cable television. Actors who once devoted time to projects, sets, and the performance of characters separate from themselves now increasingly choose to have the camera follow them in their day-to-day lives as celebrities. Similarly, artists who at one point may have made art now primarily spend time publicly exemplifying their lifestyle as an artist through Facebook.

Art after social media is paradoxically the simultaneous rejection and reflection of capitalist logic, though I believe these two developments are reconcilable because they each contain parts of the other. For all that is communal about a decentralized network of artistic peers sharing and recreating each other's work, the dispersion of this work takes the shape of free market populism, of the free exchange of information sorting itself out among those willing to produce and consume it. Without a bureaucratic establishment imbuing art with value, the art is free to be valuated in any way possible. This is a set up not unlike the secondary art auction market, where art critics' opinions of work for sale mean little to nothing, and the bidding power of a room of collectors takes precedence.

Oppositely, one can look at the highly individualized pursuit of brand recognition among artists employing social media as a constantly communal effort. Unlike the reality television star brand, young artists employing social media are not connected to a behemoth like Viacom or NBC and need to generate their popularity on a grassroots level. Brands are more often than not defined in relation to each other, and imply the ongoing support of a devoted audience. There is no successful artist brand built on an island, each requires a level of collaboration with viewers willing to share, follow, friend, and comment on the object of their interest. In other words, what is communal about the commons is run by an every-man-for-himself free market ideology and what is individual about personal branding is bolstered by a need for community. It's very fitting that the Silicone Valley-based forefathers of social media, the California Ideology technologists who juggled utopianism and capitalism in each hand are the ones who are responsible for a generation of media obsessed artists who are now doing the very same thing.

This text is a transcript of a lecture held on a Sunday Session at MoMA PS1, New York, on 18 March 2012.

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**DISRUPTIVE BUSINESS
AS ARTISTIC INTERVENTION**

/

TATIANA BAZZICHELLI

BUSINESS   NEW   DISRUPTIVE

HACKERS   NETWORKING

INNOVATION   SOCIAL

POSSIBLE   ARTISTIC   ART

This essay aims to introduce the concept of disruptive business as a form of artistic and hacktivist intervention within the market field of Web 2.0. The main approach is not simply to refute business, since it has often been part of counterculture and cultural development, but to instead reappropriate its philosophy, making it functional for social purposes beyond the realms of capitalistic logic.

In the past years, the whole idea of creating networks has become strictly connected with developing new business models for sharing knowledge and user-generated content. On the one hand, with the emergence of Web 2.0, we are facing a process of continuity: networking, which was previously a narrow artistic practice among the avant-garde, or in the underground creative scene during the 1980s and 1990s, has found a much wider audience today and is becoming a common mode of interaction. On the other hand, we are facing a deep change, or as many hacktivists and critical theoreticians argue, an involution in the modalities of creating networks, which are becoming ever more centralized and informed by the logic of business. Both what has been called Web 2.0 since 2004, as well as the whole idea of folksonomy, which props up social networking, blogging, and tagging, might be considered a mirror to the economic co-optation of the values of sharing, openness, participation and networking which inspired the early formation of hacker culture and peer2peer technology.[1]

However, it would be too easy to assume that hackers and technology practitioners – especially in Western countries – have been completely outside of the process of IT business development. Today, it should be of no surprise to find out that Google managers are adopting the strategy of employing hackers – or promoting the bohemian

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1. If we want to discover the roots of the process in which business intertwines with the ethics of sharing knowledge and DIY we should go back to a model which inspired both business entrepreneurs and geeks in the course of the 1990s: the Bazaar method. Eric S. Raymond conceptualized this in his paper 'The Cathedral and the Bazaar' initially presented at the O'Reilly Perl Conference in September 1997. The paper analyzed the ability to create software and other products of intelligence and creativity through collaboration among a community of individuals acting to open up communication channels (Eric S. Raymond, 'The Cathedral and the Bazaar', *First Monday* Special Issue #2: Open Source (3 October 2005), http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1472). Raymond, whose essay led to the formation of the Open Source Initiative (OSI), is clearly in favor of collaborative practices, but also an apologist for greater involvement of free culture in the marketplace. This is hardly surprising considering that Raymond is the co-founder of OSI – together with Bruce Perens – the organization which coined the term 'Open Source' in 1998 in Palo Alto, California, and which included various individuals connected with the O'Reilly community.

ethos of Burning Man among their employees, as Fred Turner points out in his 2009 essay 'Burning Man at Google'[2] – since many hackers in California have contributed to the development of the computer business in Silicon Valley.

By accepting that the digital utopias of the 1980s and 1990s were never completely extraneous to business practices, the aim is to start analyzing how cyclical business trends work in the present of network culture, and how artistic and hacker practices might emerge from business logics themselves. Is it still effective to adopt a critical position *against* business, or should we acknowledge that the anti-capitalistic battle has long since been lost, while at the same time being open to the possibility that new territories of intervention and creation *within* business might be identified and imagined?

The question is whether the business appropriation and co-optation of the rhetoric and the values of the first phase of hacker culture (openness, DIY, etc.) might be the only approach for understanding present-day developments of networking and hacktivism. Considering that many social media projects are built up involving and employing hackers and networkers, the question is not so much whether such people are exploited, but rather how hacking, sharing, and openness are still possible inside Web 2.0. If hackers and activists cannot avoid indirectly serving corporate revolutions, they might work on absorbing business ideologies to their own advantage, which, in short, means transforming and hacking its models from within: to reappropriate the appropriators by provoking a conscious understanding of the technology itself, as well as generating disruption within it.

Even if it is common to recognize appropriation as a cyclical business strategy among hackers and activists, it takes more effort to accept that business has often been part of counterculture and cultural development. In this phase of ambiguity, it is important to look back and analyze the reasons for the shift of networking paradigms and hacker values, but it is also necessary to break some cultural taboos and avoid dualistic oppositions, as a political and artistic strategy. Possible artistic scenarios might lead to a stretching of the limits of business enterprises, and imagining different strategies of participation, interaction and cultural innovation. Instead of refusing to compromise with commercial platforms, a possible model for artists and activists – but also for common users – might be to develop an understanding of the medium from within, revealing power structures and hidden mechanisms of social inclusion and exclusion.

Once again adopting the hands-on strategy as practiced by hackers, the objective therefore becomes to reflect on the intersections between art and business, focusing on disruptive art practices as tools for generating aesthetic, technological and socio-political criticism.

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2. Fred Turner, 'Burning Man at Google: A Cultural Infrastructure for New Media Production', *New Media & Society* 11.1-2 (April, 2009): pp. 145-66. http://www.stanford.edu/~fturner/Turner%20 Burning%20Man%20at%20Google%20NMS.pdf.

I propose the concept of *The Art of Disruptive Business* as a form of artistic and activist intervention within the business field of Web 2.0.[3] This notion describes immanent practices of hackers, artists, networkers and entrepreneurs that interfere with business, whilst at the same time generating new forms of business. Disruptive business is strictly related to the concept of disruptive innovation or disruptive technology, a term coined in 1997 by Clayton M. Christensen, Professor at the Harvard Business School. According to Christensen,

> A disruptive technology or disruptive innovation is an innovation that helps create a new market and value network, and eventually goes on to disrupt an existing market and value network. The term is used in business and technology literature to describe innovations that improve a product or service in ways that the market does not expect.[4]

Adopting this concept as an art practice offers an opportunity to imagine new possible strategies for art as well as creating innovations in the economic framework, which are only possible by getting directly involved in the business process. In this context, artists and hackers, conscious of the pervasive presence of consumer culture in our daily life, react strategically and playfully to create a change that comes from within the flow of business, in all its complexity. While disrupting the machine, and producing innovation, it might be possible to accomplish a new critical perspective.

Since the avant-gardes, artists have concentrated on the effect of producing shock and the unpredictable, while generating new forms of visual and artistic experimentation. In the neoliberal era, disruptive business logic deals with the unpredictable as well, as exemplified above by quoting the definition of disruptive technologies. As Stevphen Shukaitis argues in the book *Imaginal Machines*, it is not possible to discuss subversion as if it was an external entity, or an external enemy, of capital.[5] He points out that 'resistant aesthetics, anti-art and the avant-garde have greatly shaped the development of capitalism to the degree that it relies on rejuvenation through new images and imagery along with other forms of social energies'.[6]

If business tends to co-opt its opponents, artists and hackers can respond by appropriating the concept of disruption in the business framework, by generating a mutual interference loop between business and disruption. Performing *both* disruption *and* innovation means simulating the logic of the contemporary Web 2.0 business model, which works by adopting sharing values of networking and peer2peer collaboration, and producing new networking strategies. The social and political change comes from the inside, by performing within the system and finding its contradictions and the bugs

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3.   The concept of *The Art of Disruptive Business* is a result of an investigation I have been conducting since 2008 within a research group at Aarhus University in Denmark. This resulted in the completion of my PhD dissertation in 2011, *Network Disruption: Rethinking Oppositions in Art, Hacktivism and the Business of Social Networking* (to be published).

4.   Clayton M. Christensen, 'Disruptive Innovation', in Mads Soegaard and Rikke Friis Dam (eds) *Encyclopedia of Human-Computer Interaction*, Aarhus, Denmark: The Interaction Design Foundation, 2012, http://www.interaction-design.org/encyclopedia/disruptive_innovation.html.

5.   Stevphen Shukaitis, *Imaginal Machines: Autonomy & Self-Organization in the Revolutions of Everyday Life*, New York: Autonomedia, 2009.

6.   Shukaitis, *Imaginal Machines*, p. 24.

in the machine, or by using its own logic to transform it. In the era of immaterial economy and increasing flexibility, the act of responding with radical opposition no longer looks like an effective practice, while that of performing within the capitalist framework, keeping the dialectic open through coexisting oppositions, might become a possible path of exploration. Adopting a hacker's strategy, hacktivists and artists take up the challenge of understanding how capitalism works, transforming it into a context for intervention.

Disrupting the scheme of oppositional conflicts, the challenge becomes to create paradoxes and tricks, with the protagonists acting as chameleons to absorb the instances of the system and, by being able to find the system's weaknesses, turning such weaknesses around to produce innovative perspectives and critical interventions. In a scenario where business is intertwined with the values of hacker ethics and networking, and where the forms of criticism tend to freeze as soon as they emerge, the alternative to social media might be found within business itself.

Business innovation becomes art intervention.

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FACEBOOK RESISTANCE:
AUGMENTED FREEDOM
/
MARC STUMPEL

USERS   DISLIKE   BUTTON
SOFTWARE   BROWSER   ADD
HACKS   WEB   SOCIAL
HACKING   ZUCKERBERG
ENEMYGRAPH   INTERFACE
CUSTOMIZATION   COLOR

What is needed is an invention of social network software where everybody is a concept designer.
– Ippolita, Lovink and Rossiter[1]

Facebook Resistance,[2] initiated by digital artist Tobias Leingruber in 2010, is a creative intervention and research initiative that focuses on ways to change Facebook's rules and functionality from inside the system (Fig. 1). Its aim is to investigate and instigate modification of the platform to make it better suited to users' needs and wants, for example the desire for a Dislike button in response to the Like button. Facebook Resistance gathers people who reflexively resist hierarchical decisions in the programming

Fig. 1. Facebook Resistance graphic art, by Tobias Leingruber.

of the software with browser hacks in workshops[3]. While some Facebook users realize that 'hacking' can simply mean customization, Facebook promotes different connotations of the term.

In February 2012, Facebook's founder Mark Zuckerberg wrote a letter[4] to potential IPO investors.[5] This letter contained a peculiar paragraph about 'the hacker way': a new culture and management approach that would supposedly bring the hackers' spirit back and use it to improve Facebook and

1. Ippolita, Geert Lovink and Ned Rossiter, 'The Digital Given: 10 Web 2.0 Theses', *Fibreculture Journal* 14 (2009), http://fourteen.fibreculturejournal.org/fcj-096-the-digital-given-10-web-2-0-theses/.
2. FB Resistance Artists, http://fbresistance.com.
3. Facebook Resistance examines the interface and functionality laws through workshops all around the world. In the workshops, participants examine questions like: 'What if you could change Facebook's laws? What would you do differently? Can these ideas actually be realized?' To answer these questions they engage in unrestrained brainstorms and critical discussions about the laws of the software and its mutability. These brainstorms lead to ideas such as the 'gender slider', which critiques Facebook's narrow-minded attitude towards gender, or less serious ideas, such as adding a feature for Mormons that enables them to have more than one wife on Facebook.
4. Mark Zuckerberg, 'Letter to Shareholders from Mark Zuckerberg', *Financial Times*, 2 February 2012, http://www.ft.com/intl/cms/s/2/a2109a54-4d88-11e1-b96c-00144feabdc0.html.
5. An initial public offering (IPO) or stock market launch is a type of public offering where shares of stock in a company are sold to the general public, on a securities exchange, for the first time.

its features in monthly office hackathons. In the letter, Zuckerberg presented himself as someone who is affiliated with hacker culture, encouraging an 'extremely open' and 'meritocratic' approach. However, unsurprisingly, Zuckerberg does not mention anything about the possibility of Facebook's own users being hackers. Moreover, although the Facebook office hacker mantra 'Code wins arguments' as mentioned in the letter sounds quite powerful, it is weakened by the presupposition that hacking Facebook exclusively happens at Facebook headquarters.

In July 2012, Facebook invited so-called ethical hackers to attack its network, and announced payment for them finding security holes.[6] Although this can be seen as a step in the right direction, it leaves out the regular less tech-savvy users and their ability to make use of hacks. Obviously, there lies a big difference between assigned hacking with the goal of making Facebook more secure and freely utilizing exploits for other reasons, like adding a Dislike button or changing Facebook's colors. While in theory Facebook identifies itself with 'openness' and hacker culture, the company rather maintains an extremely *closed* and convulsive developer's mentality; whereas there are other innovative projects like Ouya,[7] a crowdfunded open source gaming console that literally welcomes hackers to help and improve the product's user experience through modification, as well as several open source social networking alternatives that thrive on crowdsourced development.

Facebook proclaiming the 'hacker way', should not pass without revisiting early hacker writings. For instance, the lack of possibilities that Facebook offers to its users for interface and functionality customization, clearly does not conform to Steven Levy's hacker ethic written in 1984, which states as its third tenet: 'Mistrust Authority – Promote Decentralization'.[8] The user's control over Facebook's interface and features is exercised through predefined options, preferences, and possible actions, which are rigidly imposed by a *centralized* authority. Thus, Facebook's promotion of hacking culture is not so much a plea for hacking in its original sense, as it is an example of typical discourse and image-making: 'Hey guys, check this out! Our new strategy to recurrently improve Facebook is hacking, which used to be cool back in the days. Awesome, right!?' In his letter to investors, Zuckerberg intentionally proclaimed hacking in a unilateral manner, by merely writing about hacking from Facebook's perspective and at the same time suspending hacks they don't like.

One can argue that this instance of PR communication demonstrates Manuel Castells' notion of 'discursive control',[9] that is, using particular framing that best supports the

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6.   Jordan Robertson, 'Facebook Widens "Bug Bounty" Program to Combat Internal Breaches', Bloomberg, July 2012, http://www.bloomberg.com/news/2012-07-26/facebook-widens-bug-bounty-program-to-combat-internal-breaches.html.

7.   Ouya on Kickstarter, http://www.kickstarter.com/projects/ouya/ouya-a-new-kind-of-video-game-console.

8.   Steven Levy, *Hackers: Heroes of the Computer Revolution,* 25th Anniversary Edition, Sebastopol, CA: O'Reilly Media, 2010, p. 25.

9.   Manuel Castells, *Communication Power*, Oxford: Oxford University Press, 2009, p. 53. For more examples of discursive control in relation to Facebook see, Marc Stumpel, 'The Politics of Social Media. Facebook: Control and Resistance', MA thesis, University of Amsterdam, 16 August 2010, http://marcstumpel.wordpress.com/2010/09/04/the-politics-of-social-media-facebook-control-and-resistance.

network's goal. Through the sudden unilateral framing of hacking, an image was established to win the trust of the investors, obscuring Facebook's history of 'security flaws' which is undeniably related to the concept of hacking. Some Facebook users may be shocked by the social network's *insecurity* once they become a victim of a malicious hack or discover the unsettling 15,200 articles from the web security company Sophos related to Facebook's security,[10] whereas there are also users that actually make use of security flaws. In December 2011, for instance, Zuckerberg's 'private' photos, ironically, were hacked and made public.[11]

When the terms 'hacking' or 'hacks' are used in everyday discourse, 'negative' examples and associations, such as stealing personal pictures, sustain the popular image of the hacker as a criminal with harmful intentions. However, with the letter to investors and the invitation of ethical hackers, Zuckerberg draws attention to a positive image of hacking. In spite of this seemingly more balanced comprehension of hacking, there is a significant positive connotation lacking in relation to the hacking of Facebook: modification of the system by its *users* to make it better suited to their needs. In doing so, participants in international[12] Facebook Resistance workshops are well aware that operational decision-making can actually be immediately *decentralized*; the users take matters into their own hands and become the decision-makers themselves.

By using browser add-ons, like Greasemonkey,[13] internet users can install, configure, and run user scripts; the browser hacks. These are tiny bits of JavaScript and/or CSS, freely available from userscripts.org,[14] processed by the web browser before a website is completely loaded. After user scripts are installed with a single click and running, they are capable of making on-the-fly changes to the Facebook interface design and even its functionality. Just by changing how and what code is processed when loading Facebook.com, users are able to enhance their[15] experience at will, for instance permanently adding or removing certain features (e.g. Timeline) from the user interface.

Facebook Resistance's workshops are both conceptual and concrete. On the one hand freedom is explored through the re-imagination of Facebook, and on the other hand ideas are actualized into prototypes, mock-ups, and functional user scripts. Critical, subversive, and fun ideas emerge out of the workshops. Moreover, the participants are also given the opportunity to experiment with browser hacks that are inherent to the initiative, actualized ideas that might be elaborated on. Furthermore, ideas of the

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10. Sophos, return for 'facebook' query, http://www.sophos.com/en-us/search-results. aspx?search=facebook.
11. 'Facebook Fixes Photo Privacy Bug After Founder Mark Zuckerberg has Account Hacked', *National* Post, 7 December 2011, http://news.nationalpost.com/2011/12/07/facebook-fixes-photo-privacy-bug-after-founder-mark-zuckerberg-has-account-hacked.
12. Facebook Resistance workshops took place in Berlin, Germany; Barcelona, Spain; Bangalore, India; Amsterdam, the Netherlands; and Aalborg, Denmark.
13. Greasemonkey for Firefox, https://addons.mozilla.org/nl/firefox/addon/greasemonkey/?src=search.
14. Userscripts.org: Power-ups for your browser, http://userscripts.org.
15. Modification through user scripts and browser add-ons is a local process on the client-side; Facebook's source code on its servers remains untouched. This means that in most cases the modifications are only visible to the individual user, and not to Facebook or other users.

participants, relevant available hacks, software projects, and artworks are ironically shared on an open Facebook Group: FB Resistance Artists.[16]

What kind of hacks are there to enhance the Facebook user experience and fulfill needs that the platform does not support? How to define the freedom that Facebook Resistance explores and cultivates, which is obscured by Facebook at the same time?

Liking the Dislike Button

A popular resistant concept is the 'Dislike button', the company's unwanted stepchild that brings a counterbalance to the pervasive Like button. Even though 3.2 million[17] users have grouped on Facebook to show their support of the Dislike button, the company is persistently against the thumbs down feature. While Facebook supposes that the opportunities for abuse would be too great, some people argue that the company just wants to protect the brands and advertisers, and their profitability; a bias towards markets.[18] As Pete Cashmore, reporter from CNN, puts it: '[...] it would damage the company's relationships with brands, businesses and web publishers – these groups are essential for building both web traffic and ad revenue'.[19] Even though Facebook acknowledges their users' need for a Dislike button,[20] the company seems to persistently obscure its commercial reasons for not adding it by putting forward an ethical argument, which shows the company in its best light.

Facebook's argument that the Dislike button would just cause more abuse or hate seems to be quite blunt. An opposing view is presented by a Dislike button developer: '[…] the Dislike Button is not for the haters! It was made to be the "yang" to facebooks "yin" […] to express our sympathy or shared resentment for the distasteful, the disgraceful and the downright rotten!'[21] Although such a statement implies having the best intentions, it does not tackle the issue of the supposed Dislike button abuse.

On the flip side, if being able to dislike likeable things is considered 'abuse', what about liking dislikeable things? One could argue that both the Dislike button and Like button could create opportunities for abuse. The James Holmes – Aurora shooter – fan page, for instance, had 800 likes and was shut down ten days after its creation.[22] In spite of the fan page removal, similar James Holmes pages and profiles keep arising,

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16. FB Resistance Artists open group page, https://www.facebook.com/groups/189135107782024.

17. Pete Cashmore, 'Should Facebook Add a Dislike Button?', CNN, 22 July 2010, http://articles. cnn.com/2010-07-22/tech/facebook.dislike.cashmore_1_facebook-users-facebook-ceo-mark-zuckerberg-dislike-button?_s=PM:TECH. The 'old' pro dislike button has been removed by Facebook in the process of group 'renewal'. Mari Smith, 'Facebook Old Groups Migration to New Groups – What You Need To Know', Mari Smith, 10 May 2011, http://www.marismith.com/facebook-group-owners-need-know/.

18. Dan Rowinski, 'No Haters Allowed: Why a Dislike Button is Not Coming to Facebook', *ReadWrite*, 25 April 2011, http://readwrite.com/2011/04/25/no_haters_allowed_why_a_dislike_button_is_not_coming_to_facebook.

19. Cashmore, 'Should Facebook Add a Dislike Button?'

20. Cashmore, 'Should Facebook Add a Dislike Button?'

21. Dislike-button.com, on the Internet Archive Wayback Machine, http://web.archive.org/web/20110202233840/http://www.dislike-button.com/.

22. Dino Grandoni, 'James Holmes Facebook Fan Page Apparently Taken Down', *The Huffington Post,* 30 July 2012, http://www.huffingtonpost.com/2012/07/30/james-holmes-facebook-fan-page_n_1720195.html.

all containing *just* the Like button. Is it not more horrific to see likes popping up to terrible events than dislikes in relation to a brand, organization, or individual that in some cases deserves to be disliked?

In 2010 working Dislike buttons started getting traction. The most popular was a Firefox browser add-on developed by FaceMod[23] which stayed available for quite a while, but became plagued by accusations of scamming Facebook users into clickjacking.[24] FaceMod was believed to mislead the users with a link to a fake Dislike button, that when clicked on, would hijack the user's status and post the fake 'Official Facebook dislike button' link to all of their friends, creating a cycle of spam.[25] Although FaceMod clearly stated the add-on was not affiliated with this scam,[26] the terms 'FaceMod' and 'the original dislike button' were abused by spammers who did spread the malicious links across the social network.[27] Some users, however, reported that the Dislike button worked just fine. The FaceMod Dislike button was tested in Facebook Resistance workshops to evaluate its functionality and – aside from adding external advertisements on Facebook[28] – did what it needed to do: adding a functional Dislike button to the posts and displaying dislikes for the corresponding posts to everyone who installed the add-on. Unfortunately, the FaceMod Dislike button is not available through its website anymore, but one can still visit the website using the Internet Archive's Wayback Machine.[29]

Fig. 2. Big Diss Like Button developed by Studio Underdogs.[34]

There are several other Dislike buttons that were functional before, but became blocked or unavailable over time.[30] However, in 2012 a Dutch creative collective called Studio Underdogs developed a Dislike feature, using the Facebook API, which is still functional *(*Fig. 2*)*. This project was more a fun stunt

23. Gene Byrd, 'Dislike Facebook Button Scam, Facemod Add-On to Social Network Not Connected', *The National Ledger*, 18 August 2010, http://www.nationalledger.com/news-tech/dislike-facebook-button-scam--233069.shtml#.UCeU_53N-ZM.
24. 'Clickjacking is a malicious technique of tricking a Web user into clicking on something different to what the user perceives they are clicking on, thus potentially revealing confidential information or taking control of their computer while clicking on seemingly innocuous web pages'. (Wikipedia, 'Clickjacking', 10 December 2012, http://en.wikipedia.org/w/index.php?title=Clickjacking&old id=527458947.)
25. Matthew Shaer, 'Dislike button? Not on Facebook', *The Christian Monitor*, 17 August 2010, http://www.csmonitor.com/Innovation/Horizons/2010/0817/Dislike-button-Not-on-Facebook.
26. Dislike-button.com.
27. Graham Cluley, 'Facebook Dislike Button Scam Spreads Virally', *Naked Security*, 16 August 2011, http://nakedsecurity.sophos.com/2010/08/16/facebook-dislike-button-scam-spreads-virally/.
28. These advertisements could be hidden with a user script: Facebook Dislike Button Adremover, Userscripts.org, http://userscripts.org/scripts/show/80594.
29. Dislike-button.com.
30. Two other examples of functional buttons are 'Dis.like.es', https://addons.mozilla.org/nl/firefox/addon/dislikes/; and http://dislikebutton.me, though both are now blocked by Facebook.

than serious software. It received a lot of media attention with the abbreviations BFL (Big Fucking Like) and BFD (Big Fucking Dislike), virally spreading 50,000 stickers and making the application available through idisslike.it.[31] The Big Diss Like button is a bookmarklet[32] that functions as a Dislike button, which can be clicked on when visiting any website. Subsequently, it triggers a 'Facebook share' of the hyperlink through a Facebook application. This shared link displays what the user dislikes, by accompanying it with a Big Diss Like image and an optional reason for disliking.[33]

Thus, the Dislike button is very much alive and *liked*. In fact, there is another functional Dislike button available on FBskins.com that comes with the 'Social Extras' plugin. Even though FBskins.com states its plugin is virus and spyware free[35] and their downloadable installer executable file passes the virus scanner flawlessly, it should be mentioned that there are mixed reactions to the plugin's credibility.[36] Studio Underdogs definitely offers a safer method for disliking.
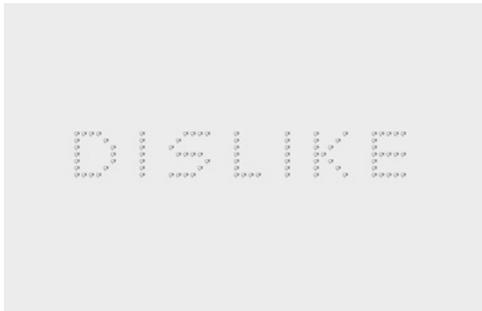
Fig. 3. NO DISLIKE. ONLY LIKE, by Amy Thornley (2011). [39]

The dislike phenomenon has driven several people to create a working feature in its name. Additionally, it has inspired artists, as exemplified by one of the Facebook Resistance artists, Amy Thornley, who posted a tribute to the Dislike button on the Facebook Resistance Artists Group page.[37] Her artwork (Fig. 3) 'NO DISLIKE. ONLY LIKE.' (2011) is '[…] about Facebook's denial of the dislike button, despite millions of its users wanting one.'[38]

Enemies and Unfriends

The idea that disliking actually connects and motivates people is embodied in EnemyGraph, a Facebook application that enables users to list their enemies, which can be a friend, user, page, or group. It was developed early 2012 by Dean Terry, director of the emerging-media program at the University of Texas, and Bradley Griffith,

31. Underblog, 'BFL + BFD = Vind ik stom-knop! Tegenhanger van de like button op Facebook gemaakt in Nederland', 2 April 2012, http://www.studio-ud.nl/index.php/nl/blog-underdogs/147-idisslikeit-is-the-dissbutton.
32. A bookmarklet is an applet, a small computer application, stored as the URL of a bookmark in a web browser or as a hyperlink on a web page
33. See, http://idisslike.it/more.html.
34. Presskit Studio Underdogs Houten, http://www.studio-ud.nl/index.php/nl/112-backlinks/146-presskit.
35. FBskins, http://www.fbskins.com/facebook-layouts/support.php.
36. For example see, 'Fbskins for facebook safe' on Yahoo Answers, http://answers.yahoo.com/question/index?qid=20110226184542AAFoNgQ; and 'Is FBSkins safe to use?', http://nz.answers.yahoo.com/question/index?qid=20110806172939AAfC9wv.
37. FB Resistance Artists open group page: https://www.facebook.com/groups/189135107782024/.
38. Amy Thornley, 'NO DISLIKE. ONLY LIKE', 18 October 2011, http://www.amythornley.co.uk/blogposts/no-dislike-only-like/.
39. Thornley, 'NO DISLIKE. ONLY LIKE'.

a graduate student. EnemyGraph is still functional and is considered a '[...] simple, expressive, often fun critique of the lopsided Facebook approach to online mediated social interaction [...]'.[40] Using the term 'enemy' as loosely as Facebook uses the term 'friend', the creators do not intend to stimulate hate speech and do not believe it will. Instead, by revealing dissonance through EnemyGraph they hope to generate conversations.[41] Moreover, EnemyGraph enables users to '[...] interact with [their] friends over common enemies [...] creating alliances based on shared animosities'.[42] By means of EnemyGraph, Facebook users can confront themselves with their negative relations and resist against the 'artificial niceness',[43] as Terry puts it.

Coincidentally, the idea of 'adding enemies' also emerged in a Facebook Resistance workshop in 2011.[44] Before EnemyGraph was launched, the developers initially worked on another application called Unfriends. However, they dropped the project after reading in Facebook's platform policies that applications should never encourage unfriending.[45] It is likely that the EnemyGraph creators were also unaware of the 'Unfriend finder' user script that already existed for quite a while.

The Unfriend Finder, available at unfriendfinder.com since 2009, notifies users in real-time of their *unfriends*: contacts who unfriended them or deactivated their account. It enables users to see who has been removed from their friends list, as opposed to the default where software only notifies them of pending and confirmed friend requests. Additionally, it even notifies the users when a friendship request has been declined.

Installing this user script adds an unfriend feature to the top-right corner and left sidebar of the user interface, notifying the user of their friend list losses. The Unfriend Finder has been installed over 45 million times, is supported by all browsers and is available in 65 languages.[46] These are rare numbers for a browser hack and signify the willingness of Facebook users to modify their online social networking experience.

The Dislike button, EnemyGraph, and Unfriend Finder are antagonistic concepts that represent an alternate perspective to the positiveness that Facebook imposes onto is users; obligatory rose-tinted glasses. They were created, not to harm, nor to abuse, but to pierce Facebook's unilateral ideology, which significantly renders its business model.

40. Dean Terry, 'EnemyGraph Facebook Application', dean terry, 21 February 2012, http://www.deanterry.com/post/18034665418/enemygraph.
41. Jeffrey R. Young, '"Social-Media Blasphemy" Texas Researcher Adds "Enemy" Feature to Facebook', *The Chronicle of Higher Education*, 25 March 2012, https://chronicle.com/article/College-20-Social-Media/131300/.
42. Terry, 'EnemyGraph Facebook Application'.
43. Terry, 'EnemyGraph Facebook Application'.
44. FB Resistance Artists open group page, https://www.facebook.com/groups/189135107782024/.
45. Terry, 'EnemyGraph Facebook Application'.
46. Unfriend Finder, Userscripts.org, http://userscripts.org/scripts/show/58852.

User Interface Intervention

> *Colors don't matter much to Zuckerberg; a few years ago, he took an online test*
> *and realized that he was red-green color-blind. Blue is Facebook's dominant color,*
> *because, as he said, "blue is the richest color for me – I can see all of blue".*
> – Jose Antonio Vargas[47]

In 2010 Mark Zuckerberg told Vargas, a *New Yorker* reporter, that Facebook was blue because of his color blindness. Whereas, Emil Kostov noted that it keeps the color as part of their marketing plan, for it is likely to distract us less than others.[48] From the latter perspective, one could also argue that the lack of customization possibilities is meant to keep the user interface as standardized as possible, regardless of the users that are not color blind, disallowing personal customization of profiles as MySpace did.

As Robert Gehl puts it: '[…] MySpace allowed its users to create a cacophony of "pimped" profiles that consistently undermined efforts to monetize user-generated content. In contrast, Facebook has proven to be extremely efficient at reducing users to data sets and cybernetic commodities, all within a muted, bland interface that does not detract from marketing efforts'.[49] According to Gehl, Facebook has successfully created a 'real software abstraction' unlike MySpace, covering up the code in a clean template-based software architecture that disciplines the users as immaterial laborers in an affective marketplace.[50] The code is concealed for the users who have to abide to Facebook's default settings, software standards, and template, reflecting what Anne Helmond calls the 'template culture of web 2.0'[51]: a culture that is essentially critiqued by Facebook Resistance for bringing Facebook users into line with very limited possibilities for customization, personalization, and individual expression. Hence, the Facebook Resistance workshop particularly focuses on dissolving those limits, disassociating the software abstraction in order to expand the possibilities for the user.

> *Facebook designing your online identity is like IKEA designing your apartment. The*
> *only individuality lies in the family pictures standing in your BILLY shelves.*
> – Tobias Leingruber[52]

Browser hacks that enable new possibilities for customization and individual expression are thus appealing to the initiative. Take the Facebook Colour Changer[53] for ex-

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47. Jose Antonio Vargas, 'The Face of Facebook', *The New Yorker*, 20 September 2010, http://www. newyorker.com/reporting/2010/09/20/100920fa_fact_vargas?currentPage=4.
48. Amit Agarwal, 'Why is Facebook so Blue in Color?', Digital Inspiration, 26 April 2012, http://www. labnol.org/internet/why-facebook-blue-in-color/17811/.
49. Robert Gehl, 'Real (Software) Abstractions: On the Rise of Facebook and the Fall of MySpace', Unlike Us Conference, Limassol, 23 November 2011, http://www.robertwgehl.org/text/Unlikeus_ talk.pdf, p. 3.
50. Gehl, 'Real (Software)', p. 3.
51. Anne Helmond, 'Transmediale: Results from the Facebook Resistance Workshop', Anne Helmond, 18 February 2011, http://www.annehelmond.nl/2011/02/18/transmediale-results-from-the-facebook-resistance-workshop/.
52. Tobias Leingruber, FB Resistance Artists, http://fbresistance.com.
53. Facebook Colour Changer, Userscripts.org, http://userscripts.org/scripts/show/9475.

Fig. 4. Screenshot of Facebook, personalized with several browser hacks (2011).

ample, which makes it possible to easily change and save the color scheme to the user's tastes. Somewhat similarly, the Auto Colorizer[54] changes the user's color scheme automatically, corresponding to the colors of a picture that is displayed. In addition to introducing 'otherworldly' colors, users can easily personalize their Facebook page with background images[55] (Fig. 4).

As opposed to commercial parties that offer customization options, like Fbskins.com, Facebook Resistance is not charmed by customization add-ons that add more advertisements to Facebook. Instead, the initiative is interested in bringing the possibilities for ad-blocking on Facebook to light. Although there are Facebook users who claim to be 'banner blind' and marketers who love advertisements, many users find online ads very annoying. As Vratonjic et al. declare:

> Online advertisements have become a serious problem for many Internet users: while some are merely annoyed by the incessant display of distracting ads cluttering Web pages; others are highly concerned about the privacy implications – as ad providers typically track users' behavior for ad targeting purposes. [56]

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54. Auto-Colorizer, Colors Facebook: Userscripts.org, http://userscripts.org/scripts/show/3626.
55. There are several ways to add these to Facebook. First of all, users can enter a simple line of Javascript in the URL bar and save it as a bookmarklet, with the code instead of a URL. Subsequently, clicking on the bookmarklet would instantly change the background to the path's image. To sustain this modification, and executing it automatically when visiting Facebook, the code needs to be run as a user script. In that case, the users can easily enable and disable their (background) modifications via Greasemonkey or another user script manager. Secondly, users can install the Facebook Background user script that adds a simple configuration button, which enables them to change the background by adding a URL or choosing a gradient color. Thirdly, FBskins.com offers thousands of Facebook themes via its Social Extra's browser add-on. The downside of this last method, however, is that it also adds external advertisements to Facebook.
56. Nevena Vratonjic et al., 'Ad-blocking Games: Monetizing Online Content, Under the Threat of Ad Avoidance,' 2012, http://weis2012.econinfosec.org/papers/Vratonjic_WEIS2012.pdf.

Notwithstanding, the many browser add-ons, like Ghostery[57] and Do Not Track Plus,[58] that block (Facebook) tracking on the web, the social network still displays advertisements that its users might want to hide.

There are several ways to block ads on Facebook. Firstly, AdBlock Plus[59] is a popular free browser add-on: a community-driven open source project with over 100 million downloads[60] and 12 million daily users, making '[...] browsing the web less taxing on both your computer and your sanity'[61] by preventing ads from being displayed. Secondly, to remove 'sponsored stories' from being displayed in the News Feed, users can run the Remove Sponsored Stories user script.[62] Finally, the Unfuck Facebook[63] user script hides advertisements as one of its many features.

In addition to advertisements, users dislike other pushed Facebook features as well and updates have recurrently met with discursive resistance, for example, the Timeline layout.[64] These critical manifestations of discourse can sometimes lead to a reconfiguration or retraction of features implemented by Facebook.[65] However, as Facebook's disregard for the contestation against Timeline demonstrates,[66] 'default' users have to abide[67] to the company's software pushes; making use of the mandatory Timeline interface.

By using browser hacks users can escape the default interface. There are several browser add-ons that offer many options for doing so. For example, Facebook Purity[68] is capable of removing Timeline, or as mentioned above, the Unfuck Facebook user script, which has many features: customize Facebook layout through a graphical settings menu, block all app-stories, remove recent activity from the News Feed and more. Unfortunately, these add-ons don't make the user's customization visible to others. Perhaps, customized interfaces would be better experienced if they were being stored on and retrieved from a remote server. Then, the users could also view each other's customizations, something that is currently only possible with the less authentic Social Extras plug-in from FBskins.com. If Facebook Resistance cranks up its operations, a future browser add-on might fulfill this need.

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57. Ghostery, http://www.ghostery.com.
58. Do Not Track Plus, http://www.abine.com/dntdetail.php/.
59. Adblock Plus, http://adblockplus.org/en/.
60. Justin Scott, '100 Million Adblock Plus Downloads', Mozilla Add-ons blog, 17 November 2010, http://blog.mozilla.org/addons/2010/11/17/100-million-adblock-plus-downloads/.
61. Adblock Plus, Chrome webstore, https://chrome.google.com/webstore/detail/cfhdojbkjhnklbpkdaibdccddilifddb.
62. Remove Facebook Sponsored Wall Ads, Userscripts.org, http://userscripts.org/scripts/show/136641.
63. Unfuck Facebook, Userscripts.org, http://userscripts.org/scripts/show/11992.
64. Other examples of features that were protested against include 'Ticker', a renewed News Feed with 'popular posts', and a new chat interface.
65. Stumpel, 'The Politics of Social Media'.
66. Arrgh, 'Hate Facebook's Timeline? You're not alone...', CNN iReport, 16 May 2012, http://ireport.cnn.com/docs/DOC-790757.
67. Rob Waugh, 'You WILL Reveal Your Past! Facebook's Timeline Feature Becomes Mandatory for All Users - with Just 7 Days to "Clean Up"', *Daily Mail*, 26 January 2012, http://www.dailymail.co.uk/sciencetech/article-2091735/Facebook-Timeline-mandatory-users--just-7-days-clean-up.html.
68. Facebook Purity. http://www.fbpurity.com/remove-facebook-timeline.htm.

As exemplified above, there are many reasons for users to try and hack their user experience, whether through scripts or add-ons. Firstly, they might want to get rid of a certain feature, or add a function that is missing. Secondly, they might simply want to have fun with modifications. Thirdly, they might want to expand their aesthetic freedom to better express themselves. Finally, they might want to critique Facebook's artificial niceness with antagonistic concepts.

However, the vast majority of Facebook users do not dare to dream about changing how Facebook operates. Of course, in spite of Facebook's glorification of 'openness', it is ultimately a closed and proprietary system. Users need to become aware of their *freedom* to use browser hacks.

Augmented Freedom

> *If the users don't control the program, then it's the program that controls the users,*
> *because it does what it does and the users are stuck with it.*
> – Richard Stallman[69]

For Richard Stallman, founder of the Free Software Movement, non-free proprietary software generates a system of unjust power. According to him it is an evil that exercises power over its users by deciding for them how the software operates.[70] Moreover, in the case of Facebook, the users are subjugated to a system of mass surveillance.[71] From this perspective, Facebook's statement on its homepage is deliberately deceptive: 'It's free and always will be'. Thus, Stallman would instead argue that Facebook is the exact opposite to what he defines as free software, which essentially enables four essential user freedoms:

– The freedom to run the program, for any purpose (freedom 0).
– The freedom to study how the program works and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this.
– The freedom to redistribute copies so you can help your neighbor (freedom 2).
– The freedom to distribute copies of your modified versions to others (freedom 3). By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.[72]

Obviously, Stallman's four definitions of freedoms are written for the proliferation of the Free Software Movement. However, when these freedoms are juxtaposed to the freedoms of users who modify their Facebook experience with browser hacks, it becomes apparent that the freedoms can actually be exercised, to a certain extent, by a Facebook user. Unsurprisingly, Greasemonkey is licensed under an MIT free software license and can be run for any purpose. Another significant similarity is that the user scripts are open source, which enables the users to study how the script works and change or improve it, according to their liking. Moreover, they can easily redistribute

69. Richard Stallman, 'Richard Stallman on the Definition of Free Software', YouTube, 13 July 2012, http://www.youtube.com/watch?v=Tt3bjUDqJGM.
70. Stallman, 'Richard Stallman on the Definition of Free Software'.
71. Richard Stallman, 'Stallman: Facebook IS Mass Surveillance', RT, 2 December 2011, http://rt.com/news/richard-stallman-free-software-875/.
72. 'What is Free Software?', GNU Operating System, http://www.gnu.org/philosophy/free-sw.en.html.

their modified scripts with their 'neighbors' and the community via userscripts.org. Surely, Facebook modifiers might have a hard time studying how the software works, because of its predominant closed source code. However, they can partially reclaim control over what Facebook does and thus don't always have to be 'stuck with it', as Stallman argues, experiencing a greater freedom than the 'default' users.

The configuration of Facebook users *expanding* their freedom(s) to change the operation of the system, produces what I propose to call 'augmented freedom', a term that is derived from the concept of 'augmented browsing': the experience of using technologies, like Greasemonkey, to automatically augment or improve information on web pages.[73]

Facebook embraces 'the hacker way', but does not embrace nor acknowledge their users as potential hackers who are capable of customizing the platform. In contrast, Facebook Resistance embraces modifications in various ways; conceptually and concretely, artistically and practically, critically and enjoyably. Instead of moving away from the rigidly changing laws of the software, the laws are critically examined and bent. The resistance takes place both offline and online; in the minds of 'resistors' and mediated by their internet browsers, add-ons and user scripts. Antagonistic concepts are 'liked' by Facebook Resistance, such as the Dislike button, the Unfriend Finder and Enemy-Graph, as they provoke against wearing Facebook's rose-tinted glasses. Furthermore, as shown, there are several browser hacks that lead to more possibilities of individual self-expression, customization, and personalization.

Many of these hacks can improve the Facebook user experience, and can be easily applied by non-tech-savvy users. User scripts can be sustained, updated, or modified, if necessary. Thus, features can be permanently added or removed by the user. As shown, there are various reasons for modifying Facebook. When Facebook users apply browser hacks to change the operation of the software, they expand and exercise their freedom beyond the default: augmented freedom.

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73. Wikipedia, 'Augmented Browsing', 14 December 2012, http://en.wikipedia.org/w/index.php?title=Augmented_browsing&oldid=493613237.

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THE TACTICS OF OCCUPATION: BECOMING COCKROACH

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PAVLOS HATZOPOULOS AND NELLI KAMBOURI

COCKROACHES OCCUPY MACHINIC SQUARE TACTICS SOCIAL OCCUPIED BECOMING FACEBOOK CHEMICALS SYNTAGMA POLICE OUR NEW MEDIA MOVEMENT

We begin with a snapshot: June 29, 2011, a day of protest in Syntagma square against the emergency austerity measures that were about to be voted on by the Greek parliament.

Since yesterday, June 28, we live like cockroaches in Syntagma square. We are sprayed continuously with chemicals by the Greek police regardless of what we do or what we say, but we persist. We leave Syntagma square for a while to catch our breath and keep on coming back. We rest a bit and return to the square. Even before the chemicals began exploding yesterday morning, we were just sitting on the pavement and the riot police stormed and arrested a person sitting nearby. When we protested against the arrest, the riot police responded by arresting another passerby who was just exiting a coffee shop with a coffee in his hand. To be just standing close to Syntagma square seems dangerous and certainly suspicious. The arrests are being enacted to disperse the crowds, but we keep on moving closer to the square instead of leaving.

As we are becoming cockroaches we begin, without really realizing it, to adopt tactics of stasis, of perseverance and endurance that were previously unknown to us. Chemicals keep on flying, sound bombs keep on exploding all around us making terrible noise and the crowds respond by not leaving, by remaining at Syntagma square. Becoming cockroaches and growing more and more resistant to the chemicals, our bodies begin to mutate. In gas masks, painting Maalox on our faces, wearing sunglasses and ski masks, we persist. The figures in gas masks and Maalox recognize each other even when they meet further away from Syntagma square.

Even now that the austerity law was approved in the Greek parliament, the crowds are not leaving, they are reinforced. "Let's have an assembly now", said someone in the midst of a cloud of chemicals. Like we did when we "staged the music concert yesterday", he explains. Yesterday, we were cleaning and washing the square with water for hours to disperse the smell of the chemicals and then from a defunct PA system the Tiger Lillies played live on Syntagma square. Chemicals and sound bombs started to explode again all around Syntagma, but everybody remained on the square and kept on dancing.

The classic urban tactics of demonstration (marching in a linear fashion, protesting in front of the Parliament, dispersing after the end of the demonstration) or confrontation (like throwing marbles, stones, and Molotov cocktails against the police

and destroying symbolic targets like banks, multinational commercial chains etc.) seem and are secondary in face of our tactics. Cockroaches do not attack, they do not make much noise, nor do they destroy something. But we cockroaches are far more persistent and productive than other animals that are slowly disappearing.

When we wrote this passage we were not simply thinking of a denunciation of police violence and repression, neither did we try to call for solidarity in support of humans 'treated like animals'. At the time, Syntagma square (the central square of Athens located outside the Parliament building) was already occupied for several weeks by protestors: indignados, left-wing and anarchist activists, as well as nationalist groups who camped and organized open discussions and mobilizations against the government austerity measures.

The occupy Syntagma movement was only an instance – perhaps the most celebrated in the Greek context – in a long series of occupations that started to proliferate like an epidemic since the revolt of December 2008.[1] Local assemblies and occupations have multiplied and diversified our experiences of 'becoming' with others ever since. The state response against the occupation epidemic is to attempt to enforce a politics of hygiene. As the economic and social crisis deepens, the Greek state reverts to less economic forms of power: symbolic and direct physical violence tend to replace policies of control.[2] The state increasingly tends to represent protests against its policies as a hygiene problem. Political mobilizations are associated with efforts to make urban spaces filthy, radical protest groups are named 'the unwashed', antiracist initiatives are accused of impeding the state from 'de-filthing' Greek cities from the presence of destitute migrants. Occupied spaces are constantly attacked by police forces and are (in most cases temporarily) closed down. The police usually barricades occupied spaces with steel doors or cement walls in order to avoid further contamination. Supplementary hygienic policies are also devised: the Greek Ministry for the Protection of Citizen announced in 2012 (although it is yet to be seen whether this measure is going to be implemented) that instead of chemicals, water cannons are going to be used for dispersing protests.

What we tried to convey with the opening passage was a bodily experience of becoming with others in the midst of these conditions. As we tried to defend the occupied space against the violent attacks by the police, we were able to act in common (although not always in a synchronized and well-rehearsed manner) despite our very different and often radically opposed standpoints. Wearing gas masks, painting our faces with Maalox to withstand the tear gas and other chemicals or adopting tactics of perseverance and endurance did not mean that we 'humans' were forced at this instance to mimic or pretend to be like an 'inferior' species, nor were we suddenly reduced to acting like insects. At these moments, rather, our bodies began to mutate in a process of living in common, which required different tactics of resistance – tac-

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1. On the December 2008 revolts, see Dimitris Dalakoglou and Antonis Vradis (eds) *Revolt and Crisis in Greece: Between a Present Yet to Pass and a Future Still to Come*, Oakland, CA: AK Press, 2011.
2. For the transition from disciplinary societies to societies of control see, Gilles Deleuze, 'Post-scriptum sur les sociétés de contrôle', in Gilles Deleuze, *Pourparlers*, Paris: Les Editions de Minuit, 1990, pp. 240-47.

tics that defy the limits between the human, the animal and the machinic.[3] Our bodies were not accustomed to these types of tactics no matter how long some may have participated in past militant mobilizations. This becoming required a de-skilling and a re-learning in common.

In a similar fashion, in Tahrir square, after six successive days of murderous suffocation by teargas and other chemicals and of shootings of protestors with rubber bullets and live ammunition by the Egyptian security forces (from 19 to 24 of November 2011), Twitter user @El_Deeb wrote: '#Tahrir has turned into a lifestyle, a way of living, a utopian city'.[4] The repeated refusal of the protestors in Tahrir to leave the square, their perseverance in the face of what was previously thought of as 'unlivable conditions', effected the transformation of occupied space.

Becoming cockroach is a process through which new possibilities are emerging for the propagation and expansion of the occupy movement beyond the confines of a particular urban public space.[5]

The Production of Occupied Spaces
What connects the occupy movements across different locales is not a mutually shared opposition to the capitalist crisis, nor a collective identity (of the 'indignados' or of the 99%), nor a consensual political project (for real, authentic, or direct democracy). The multiplicity of occupations in different settings is primarily interrelated by the common desire to occupy space in order to remodify and remodel it. The call to 'occupy' is directly associated with the potentiality of the cooperative production of space through the very act of occupation.

The global occupy movement uses a tactics of stasis: a primary refusal to move, instead of marching. From Tahrir, to Piazza del Sol, to Syntagma, to Zucchotti Park, immobility embodies the desire of the protestors to dissociate their occupied public spaces from existing networks of power. These tactics of stasis are not directly disruptive. They do not intend to block traffic or to close down the roads: to disrupt, in other words, the main networks of urban mobility. They are, instead, devised as a cause for themselves. Stasis operates through contagion and absorption: it constitutes the desire to absorb the entire everyday urban life into the occupy mode itself.

This is how stasis relates to the existing organization of urban space-time. In a way, the occupiers adopt a politics of asymmetry in relation to power. Their tactics are not intended to destroy, head-on, the way that power organizes the space-time of urban life, nor to attack it in some of its weakest chains (although this is also done by certain groups that are part of these protests). Occupied public spaces are intended to devour, within their bordering, all of the existing activities and subjectivities that operate in the

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3.   Donna Haraway, 'A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century', in Donna Haraway, *Simians, Cyborgs and Women: The Reinvention of Nature*, New York: Routledge, 1991, pp. 149-81.

4.   @El_Deeb, '#Tahrir has turned into a lifestyle, a way of living, a utopian city', Twitter post, 25 November 2011, 1:56 AM, https://twitter.com/#!/El_Deeb/status/140006010197786624.

5.   Gilles Deleuze and Felix Guatarri, *A Thousand Plateaus: Capitalism and Schizophrenia*, London: Athlone Press, 1988, p. 239.

non-occupied city space.[6] The call to 'occupy everything' does not, then, directly aim at the destruction of existing structures of domination, but at the production of occupied zones within which multiple and often contradictory desires are possible and may co-exist.

In occupied zones, we tend to become cyborgs. The possibilities of meeting, communicating, acting in common, and resisting repression depend on our ability to extend our bodies by means of machinic prostheses.[7] We use technologies to resist the effects of chemicals, to find places to hide, to trace the movements of the police, to help other protestors and connect with them. The bodies of more experienced militant protestors have clearly mutated and do not seem to be affected by the chemicals: they navigate their way easily across demarcating lines covering their noses and mouths with pieces of clothing. This allows them to enter into direct confrontation with the police forces. Most protestors, however, depend on their machinic prostheses: their gas masks that help them to breathe and their mobile phones that allow them to use Twitter or text messages in order to organize their mobilities, protect themselves and find a safe way back to the occupied space. The machinic prostheses of occupying bodies may not always be sophisticated but they enable a multiplication of bodily affects.

Machinic Cockroaches

The entanglement of social media activism with the global occupy movement creates the conditions for a becoming machinic cockroach. In 2007, an experiment was performed by a group of scientists at the Free University of Brussels. Scientists, there, created a set of tiny machinic cockroaches with the purpose of having them socialize with real cockroaches and of ultimately affecting their behavior.[8] The machinic cockroaches were basically tiny robots, of about the same size as real cockroaches and programmed to exude the same smell so that they would fool the real ones into believing that they were real, too.

The experiment tried to test the predominant hypothesis that cockroaches find shelter on the basis of two criteria: a) how dark it is – choosing the darkest place available and b) how many other cockroaches are to be found in that spot. The researchers programmed the machinic cockroaches to prefer a less-dark hiding place than the ones available. During the experiment all the cockroaches scurried around randomly for a while, but the robots eventually settled under the lighter, less shadowy spot – and the real cockroaches followed. The machinic cockroaches had tricked the real ones into following them – even to places where a sensible roach would never venture. In a similar fashion, the occupy movements are using tactics of becoming machinic cockroaches for organizing their activities in social media platforms.

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6. The most direct use of this strategy has come from the Occupy the Buffer Zone (OBZ) movement in Cyprus. OBZ transformed a part of the 'buffer zone' between the Greek-Cypriot and the Turk-Cypriot border into the only space on the island where a symbiosis amongst members of two communities became possible. 'We are living the solution' was appropriately one of the main slogans of the occupation. See http://occupythebufferzone.wordpress.com/.
7. See, Haraway, 'A Cyborg Manifesto'.
8. Michael D. Lemonick, 'Robotic Roaches Do the Trick', *Time*, 15 November 2007, http://www.time.com/time/health/article/0,8599,1684427,00.html?imw=Y.

Take the story of the 'We are all Khaled Said' Facebook page, for instance. In a recent interview, the administrators of this Facebook page, which played a prominent role in the initial mobilizations in Egypt, remembered how 'in early November 2010, the page disappeared through an organized attack from the state security electronic department'. Their agents flooded Facebook with complaints that the Khaled Said page 'violated Facebook's terms and conditions'. The administrators of the page recounted how 'activists in Egypt instantly campaigned Facebook through mass e-mails and threats to boycott Facebook' and how they 'immediately made calls to the Facebook headquarters in California' demanding that the page be put back online. The page was up again in a few hours.[9]

Or take the story of Amira Yahyaoui, a cyber activist from Tunisia living in exile in France. The desire to prevent her blog from being blocked in Tunisia (internet censorship was heavy there from the beginning of the revolts) prompted her to basically change the URL of her blog on an almost daily basis. From 'delle3a' it became 'delle3b' and then 'delle4a', and so on, with Amira giving a tip in code the previous night of what the new URL would be.[10]

In these examples, social media activism adopted strategies of becoming machinic cockroach, not only in the sense of perseverance and mutation that made it possible for activists and their digital prostheses to remain visible online, refusing to vanish under the power of censorship and control, but also and most importantly for this argument, took on tactics of contagion and absorption. It enacted the 'contamination' of social media platforms with data flows and activity that ensured the peopling of social media. Having '#tahrir' or '#ows', or '#tunisie' as Twitter world trending topics, or preventing a particular page or group or profile from being taken down by Facebook or from getting trolled by organized user groups, can be seen as an attempt to absorb digital flows at the borderline that an occupied zone is.

In effect, like a machinic cockroach can disturb the dark habits of a band of cockroaches, these practices disturb the personalized, a-political, banal social interactions that normalize Facebook and Twitter usages. This is not to say, that the dominant social media platforms do not try to resist machinic cockroaches or that they do not attempt to appropriate them. The argument, instead, is that there is a radically new social media activism that is emerging via the global occupy movement. Radically different from previous practices of clicktivism, of enhancing and facilitating mobilizations, and of collectively articulating political demands, this new activism operates by attempting to transform social media platforms into occupy zones. Through becoming machinic cockroach, Facebook and Twitter users and data flows subvert the original usage of these media, destroy their common sense functioning and reclaim them as a plane where occupation is propagated, where the contagion of occupy zones proliferates.

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9.   Anver M. Emon, Ellen Lust and Audrey Macklin, 'We Are All Khaled Said: An Interview with the Administrators of the Facebook Page that Fuelled the Egyptian Revolution', *Boston Review*, 3 November 2011, http://www.bostonreview.net/BR36.6/khaled_said_facebook_egypt_revolution.php.
10. Amira Yahyaoui, interview with authors, 25 September 2011.

The reaction of social media monopolies to redefine and normalize these practices is ever present, but machinic cockroaches tend to reappropriate social media as planes of renewed struggle and of a continuous renegotiation of their potential usages.

'From the Arab Spring, to the European Summer, to the American Winter To…'

The global occupy protest movement is proliferating by 'contagion, epidemics, battlefields, and catastrophes'.[11] The occupy movement is not developing in a genealogical, linear fashion, evolving from past forms of mobilization and protest, but it rather emerges directly out of the exceptional material circumstances of crisis contagion and catastrophe that spread like an epidemic in different locales. The occupy movement is not linear, synchronic, nor evolutionary. Its failure to produce a new permanent structure for real democracy or for organizing future mobilizations or a new 'species' of revolutionary subjects is also its strength. The occupy protest movement is, strictly speaking, not a movement at all, but a block of strange and unfamiliar becomings that take place simultaneously in different on and offline locales.

Becoming cockroach embodies an ephemeral symbiosis of different life forms (natural and machinic) that are normally incompatible and even hostile. It is an ephemeral borderline phenomenon triggered by the political and socioeconomic crisis and by state and police violence in specific conditions. Becoming cockroach is, however, just one block of becomings that takes hold of different life forms. It is of crucial importance to resist the evolutionary analysis of these becomings that inevitably lead us to questions about the origins and the direction of protests: 'where did they come from?' and 'what is born out of them?' Occupy movements spread like contagion from one urban context to the next, from one social medium to another. They are always to be found in the 'middle of a line' that does not necessarily lead to a new power configuration, a new species or a new medium, but rather to a new set of becomings.

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11. Deleuze and Guatarri, *A Thousand Plateaus*, p. 241.

**OCCUPY SOCIAL NETWORKS:
THE PARADOXES OF CORPORATE
SOCIAL MEDIA FOR NETWORKED
SOCIAL MOVEMENTS**

/

**TIZIANA TERRANOVA
AND JOAN DONOVAN**

MEDIA   OCCUPY   SOCIAL
PEOPLE   FACEBOOK   TWITTER
MOVEMENT   ONLINE
COMMITTEE   CAMP   CORPORATE

Since at least 2004, the internet, and more specifically the web, has witnessed a notorious and controversial shift away from the model of the static web page towards a social web or Web 2.0 model where the possibilities of users to interact with the web have multiplied. It has become much easier for a layperson to publish and share texts, images and sounds. A new topology of distribution of information has emerged, based in 'real' social networks, but also enhanced by casual and algorithmic connections. Commerce, advertising, and gaming constitute the business models by which social networking platforms monetize users' attention.

Together with the increasing relevance of mobile and wireless communication, this mutation in the ongoing evolution of the web has profoundly reshaped its culture. Many have argued, however, that this new phase has seen an even more intense embedding of the internet with corporate culture and cognitive capitalism. Corporate social media platforms such as Facebook, Twitter, YouTube and the like not only reintroduce a client-server topology and hence more centralized control, but they also stand accused of other things. The most influential version of this scenario is of course Jodi Dean's indictment of the social web as something that actually stops people from real actions inasmuch as it keeps users trapped in a circuit of sterile communication, hooked onto small nuggets of enjoyment such as those carried by news, updates, messages, etc.[1]

However, we can also think of critics such as Geert Lovink or Sherry Turkle expressing similar concerns, not to speak of the whole onslaught of popular internet critiques by writers such as Andrew Keen, Nicholas Carr, and so on. Corporate social networking sites (SNS) are generally condemned, then, for promoting a neoliberal version of subjectivity, narcissistic and voyeuristic, incapable of real intimacy, and ultimately powerless to affect any real social change. As a consequence, there's a kind of commonsense view developing that social networking platforms produce a kind of armchair activism, where signing a petition or joining a group is a safe and ultimately harmless way to vent one's anger. Also given the widespread skepticism about 'Facebook and Twitter Revolutions' in North Africa, it seems important to talk about some of the practices and experiences which have actually been developed by activists when dealing with corporate SNS in what Donna Haraway once called 'the belly of the beast',[2] that is California, USA.

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1. Jodi Dean, *Blog Theory: Feedback and Capture in the Circuits of Drive*, Cambridge, UK: Polity Press, 2010.
2. Donna Haraway, 'A Cyborg Manifesto' in Donna Haraway, *Simians, Cyborgs and Women: The Reinvention of Nature*, London: FA Press, 1991.

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Having met at a panel about social media and political movements at a conference of the Italian Association for Science and Technology Studies in Rovigo, Italy, in the summer of 2012, Tiziana and Joan started talking about Joan's involvement in the Occupy LA movement in relation to Tiziana's experience with the Italian militant scene. They started this email conversation in the summer of 2012 and met again in Los Angeles in November of the same year, where Tiziana interviewed Joan for the Italian web radio Radio Uninomade.

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Tiziana Terranova: Joan, you were an active member of the Occupy movement in Los Angeles, and were specifically very much involved with the media and communications side of the protest. Can you start by telling us in broad terms what the strategy was and what tactics were used by that movement with relation to corporate social networking platforms such as Facebook and Twitter?

Joan Donovan: When Occupy LA formed in September 2011, the idea was to use social media as an outreach tool to get people to come to the local occupation, but this has changed as new uses became apparent. A small media committee developed before the occupation settled at Los Angeles City Hall, but quickly expanded as people joined the physical occupation. I have actively declined invitations to become an admin on the Occupy LA Facebook and Twitter accounts for reasons I will discuss later.

While the Occupy movement initially used Facebook and Twitter to communicate between activists using the hashtag #OccupyWallStreet, the search term quickly became impossible to follow as thousands of 'occupy' related accounts were registered. To combat the problem of information overload, I helped with the development of an online platform for communication at InterOccupy.net, which uses conference calls and email groups to network occupiers with similar interests. Facebook and Twitter are important for promoting these conference calls and populating our homemade network, but they are not as important to InterOccupy as they are for organizing and developing infrastructure for local movements. There are many reasons for this difference in use of social media. But the main reason is that InterOccupy is most interested in forging internal ties amongst people already invested in the Occupy movement and organizing widespread direct action, while local occupations need to reach many people to make these actions effective and to sway political opinions.

The tactic of occupation has so many working parts and requires a lot of people power to make it function, so Facebook and Twitter were important tools for recruiting the

public and obtaining resources for Occupy LA. An occupation must provide all of the supports that people are accustomed to in their normal life such as clean water, sanitation, food, entertainment etc. We were occupying at City Hall in LA which is about an acre and a half of land, so we needed hundreds of people and tents to fill the space.

Though there were numerous committees people could join, I was interested in the media committee because of its closed social dynamics compared to the rest of the camp. The media committee began as an insular group and has remained that way more or less. In my opinion, the seclusion has a lot to do with the equipment required to participate, such as mobile phones and computers, and the infrastructure of social media platforms themselves. The media tent was an ever-expanding mesh of large barracks-style canopies perched on a hill next to the City Hall building. During the days of the encampment, you had to be well-liked to get into the media tent so that you could access the generators to charge your laptop or phone. Restricted access to the media tent was justified by appeals to the cost of equipment and the threat of theft. If you gained access to the media tent, (meaning you were known to the person tending the sign-in sheet), it was a mess of loose wires, random computer parts, and attitude.

In the tent people were managing numerous platforms simultaneously, including Facebook, Twitter, the Occupy Los Angeles website with hundreds of registered users, LiveStream, a YouTube channel, a very active email group, and answering information requests from the media, public, and other occupations. The tasks were endless and the work exhausting as many shuffled around on little to no restful sleep. It is remarkable that within this public space made private, Occupy LA was able to stage a full-time broadcast network capable of communicating across the globe through the use of these corporate social networks who made the 'Occupy' message publicly available.

In one sense, I think you could say that protester's speech across these networks is made possible by this configuration of private companies having amplified the connectivity between people for the purpose of selling us more products. The mining of information and data for marketing demographics is just one way in which people using these networks are exploited. But, in my own opinion, I think these all-encompassing social networks have paradoxical effects on our lives. You give up a lot in terms of privacy and freedom from the police to participate, but you gain the ability to stay in touch with old friends and make new ones without much effort. It can also feel very rewarding at times. I do agree with you that it makes it very easy for the police, or anyone with minimal skills, to map the network. We should not forget that this was a major challenge for police during the Red Scare, and not having so many points of connectivity to map back then may have saved a lot of people from jail or worse. So, yes, these networks make it easier for state surveillance and there is a lot of political repression in America of Occupy protesters or those that the media has labeled anarchists.

TT: But there's also a more general distrust of the social web by those who think that it comes with huge potential for social control. In Italy, for example, the police have easy access to Facebook accounts, and this kind of Facebook policing has become commonplace in murder cases, but we can only assume that it has made it a lot easier for the police to reconstruct the graph of networks of activists, groups of people with dissident ideas etc. At the same time, corporate social

**networking platforms have become absolutely essential to movements oppos-
ing state violence and capitalist power worldwide. This is for the same reason
that has made this phenomenon such a huge success in terms of appeal to us-
ers: they mobilize real existing social relations, from the strongest to the most
tenuous, within a digital milieu that allows for a daily intimacy. And yet all of this
comes at a price: a new visibility of the underlying topologies of those social rela-
tions. In the case of collective accounts expressing the point of view of a move-
ment, things become even trickier. I can imagine how personal and impersonal
relations overlap, and also this difficult kind of becoming visible for networks of
dissents. Given these constraints and the threat of policing, how were these net-
working platforms managed?**

JD: While the walls of the tent may have been one way to exclude people from the
media committee, the way that social networks are structured with a single point of
entry posed a bigger problem: who has the password? Because you need a password
to communicate through those channels, the passwords were vigorously guarded from
people who were deemed provocateurs. An elaborate set of rules and requirements
developed around access to these passwords, specifically for the Occupy LA Face-
book and Twitter accounts, which have tens of thousands of followers. These accounts
were operated as a 'boat' with about six captains, who decided what would be posted
and what would be ignored. If you knew someone who had the passwords, you could
approach them in the camp or by email and ask to have something posted. If those
people knew you and liked you then you would get your post online.

There is a difference between operating a single account as a group versus the way we
have become accustomed to using Facebook and Twitter as individuals. When the ac-
count speaks, the operator is representing the entire mass of people who identify with
Occupy LA. But, because Occupy LA had not agreed upon a set of community values
and protest tactics, some posts – usually those that supported good relations with the
police – left the operator to defend themselves against both online and face-to-face
opponents. This made for a hostile environment, where some people with passwords
actively concealed their identity after receiving a backlash online.

If you did not know who to contact, then you had to attend several media committee
meetings and repeatedly request access to the accounts. At these meetings, there was
a lot of talk about maintaining a 'unified and coherent' message for the press and gen-
eral public. Thus, concerns about the content of 'the message' were highly contentious
and often derailed meetings into accusations about members' outside affiliations.

After lots of complaints about the control of outward communications, a new protocol
developed where people could email the media committee and have their action or
statements promoted through social media, but only if the actions/statements were
agreed upon at the General Assembly. However, this posed a new set of obstacles
because the General Assembly is comprised of whoever showed up to the nightly
meeting and voted on a specific proposal. Moreover, these meetings could be at-
tended by hundreds of people, which meant minor issues could not be addressed. So
effectively, the media committee shifted the burden of regulating communications to
the facilitation committee of the General Assembly, who were the ones that decided
which proposals would be appropriate to be debated at the nightly meeting.

As a result of all these hurdles, the Twitter and Facebook communications served to promote the views, actions, and opinions of the small group of admins, who were routinely insulted by other members of Occupy LA who accused them of pushing a 'reformist agenda'. But, it is true that the opinions of those in Occupy LA who were doggedly anti-authoritarian were often ignored by admins or left to be argued in the stream of comments on the Facebook page.

TT: This is an interesting dynamics from the point of view of thinking about the implications of using corporate SNS, especially massive ones such as Facebook. Do you think that because it feels so much like a mass medium there is the tendency, or at least the temptation, that whoever manages the account will marginalize other points of view? Do we have something akin to the politics of representation of mass media at work here in a different technology?

JD: Yes, it was like pre-policing, but as tensions in the media committee boiled over, a group of anarchists developed their own media group and named it Occupy LA Anti-Social Media. In the vein of Anonymous, they routinely posted personal information about the Occupy LA admins via Facebook, Twitter, and Tumblr without revealing their own identities. Their posts included using the media committee's real names and linking their places of business or union affiliations in posts. However, the anonymity of this group did not extend to their offline presence at Occupy LA. At one point, the Occupy LA Anti-Social Media group used the General Assembly strategically to prevent the 'official' media committee from issuing press releases. Before this, the media committee was relatively free to issue press releases that were agreed upon during their regular meetings; the Anti-Social Media Group sought to have all press releases be agreed to by the General Assembly with 100% consensus. This meant that all press releases could be blocked or amended by members of Occupy LA Anti-Social Media without having to attend the 'official' media committee meetings. Therefore, it could be up to 48 hours before a press release was issued, making any response to a mainstream media story ineffective. The online personal attacks (which led to animated physical confrontations), coupled with the loss of the camp, led to most of the original Facebook and Twitter admins giving up and leaving the media committee and Occupy LA.

Interestingly, the loss of the camp revealed a lot about the motivations of many in the media committee. Subsequently, we found out that some who were using the media committee's resources, such as power and access to Wi-Fi, never intended on sharing the video footage they captured during the days of the camp; they were either embedded mainstream media who were filming for a private company, others were paid by unions to push a certain agenda, or they were independent documentary filmmakers who seemed to disappear with the camp. Consequently, the accusations made by Occupy LA Anti-Social Media that some were motivated by money or were being paid to control the message were true, but during the camp days the warnings went unheeded. This split seems to be characteristic of occupations in general and was extremely similar to what happened in 1968 according to the Situationists, where the media committee was staffed by amateur journalists seeking employment. In addition, as Occupy LA became less of a news story, it was just not very exciting to be on the media committee. For some that remained, if they had not been pushed out, they left when attention faded.

This is when I started doing interviews with media outlets, including *The Huffington Post*, *Al Jazeera*, *Ms. Magazine* and so on, to fill the gap left by those moved on from Occupy LA, in addition to working in internal communications across occupations. Being in touch with mainstream media outlets is stressful though, as you never know what small piece of what you say will be published and you can certainly never be sure of how they will describe you. But I felt that engaging the media is important for showing people that the movement is still working even after severe police repression. As a sociologist, I was interested in knowing more about how the mainstream media worked, so I often had many questions for the reporters who were usually very happy to talk about their process.

TT: So, you eventually got involved with talking to the media, but outside the confinement of the committee structure. How has using corporate SNS benefited the Occupy movement?

During the camp and presently, Twitter and Facebook as well as LiveStream are instrumental for getting the word out about actions and also bringing in new people and resources. Imagine how much work it would be to try to create a social media platform with all the capabilities of Twitter and Facebook (such as posting and sharing massive amounts of data) coupled with the scope of the network itself with tens of millions potential points of contact. There is no reason for trying to duplicate such an immense resource, but it is advantageous to build a network of protesters alongside these platforms, like InterOccupy has done, so that the internal flow of information can be verified and channeled appropriately. While many people use social media networks like Twitter and Facebook every day to enrich their lives, activists can use these channels to raise awareness and crowdsource funds, resources, and allies.

For example, the LiveStream provided those who might have been timid about joining the occupation a safe vantage point to view what happened at the occupation. The LiveStream was often promoted using the Facebook and Twitter accounts. On the night of the raid by the Los Angeles Police Department, while tens of thousands watched the live action clash with the police online, thousands of newcomers descended upon the camp. Several remarked to me that this was their first time at the camp, but that they watched online daily and felt an affinity with certain people who frequently broadcasted on the stream. This kind of identification and personalization of the occupiers with the online audience was integral to funneling resources to the camp as those watching at home could feel a sense of participation by sending money, blankets, pizza, and water to the camp in place of their physical presence. However, when time came for the camp's denouement, some of the audience chose live action over a passive role.

Social media networks becoming obligatory facts of our everyday lives makes it possible for a very small group with a troubled infrastructure, like Occupy LA, to become politically influential if they can capture the attention of enough people. To affect local politics though, these networks need to manifest in a corporeal form. One thing that has not changed with social media is that politicians must literally see that their constituents are invested in these issues, otherwise the politicians will not be swayed to support our cause. This is why occupation made sense as a tactic, with online tools for sharing information aiding in organizing a public with a vast range of opinions and ide-

as. With the aid of some hashtags, #OccupyLA and #OccupyWallStreet, we developed into Occupy Los Angeles, a loose community of seasoned activists, disaffected youth, and disenfranchised citizens. This is not to suggest that people only heard about Occupy LA through the internet, but these networks and search terms were integral to getting the public organized and co-located at City Hall.

As the online network grew, so did the number of people visiting the camp and joining the occupation. The online community grew much more rapidly than the occupation itself. All told, at the height of the occupation, about 2,000 people were living on the grounds of City Hall, which is not really a critical mass compared to the population of LA. However, the online reach of Occupy LA now stands at 52 thousand people on Facebook and 28 thousand on Twitter, which helps the movement sustain itself when occupying public space is not an option.

Ultimately, leveraging networks already in place seems to be an important factor in whether new social movements get off the ground, i.e. how they enroll new allies and garner mainstream media attention. But managing the community that materializes within and out of those networks is rather messy, especially when the community has a diversity of opinions and wants access to the means of broadcasting their ideas. This is all to suggest that while the Occupy movement received sizable cash donations and spent most of the money on bail, one of the most valuable outcomes of the camps continues to be the networks of people united by their experiences and ability to wield hashtags like weapons.

TT: You are describing very interesting dynamics. It seems clear that a movement such as Occupy LA has used corporate social media as broadcasting media to interact both with mainstream media and with a potential public of millions. This has involved several problems, insofar as the Twitter and Facebook accounts expressed what were the 'official' views of the movement, and hence had to be severely restricted and connected to the assemblies in ways that made their use very controlled, and at the same time, quite controversial. While many efforts went into guarding the passwords to those accounts, it seemed that it was the very structure of those accounts, of that kind of mass, corporate social network, that made it liable to some kind of manipulation by media quasi-professionals! It seems to me that you are pointing to an interesting phenomenon: corporate social networking platforms are the new mass media; they are giving you access to a potentially mass public and carrying over all of the issues inherent in communicating with a mass public to a new technological interface and protocol.

In Italy I have also noticed something similar to what you've described: group accounts or accounts which express the view of a collective are indeed very awkward media to use! They involve multiple levels of organization: on the one hand, the relay with the collective whose views they are expressing, and on the other, the internal dynamics of the group running the account, and finally, the interaction with the users posting comments to the account or retweeting etc. In Italy, the use of corporate SNS, in spite of the hostility of many activists and militants against corporations, has been quite intensive with a strong presence of anti-racist networks, student protest movements, precarious workers, and environmental struggles such as the No TAV movement in Northern Italy, on Facebook and Twitter.

Less strong is the presence of work and labor-related issues. This active use of corporate SNS, I believe, has allowed Italian social movements to develop a kind of online culture where social relations between people who know each other offline have been consolidated, while new, more fleeting relationships are formed.

The event app on Facebook has also proven crucial. What we have here is not so much mass mobilization over time, but a proliferation of small events, often built around occupied spaces (such as theatres, schools, universities and all kinds of spaces left empty and dismissed by the budget cuts in local administration and general neglect). In a city like Naples, traditionally being a hot bed of militant left activism that also holds a strong cultural presence in the city (especially with musicians who got started within this culture), this has resulted in a kind of revitalization of common life, that at the same time has not led to the kind of mass uprisings that some people would wish for given the state of things (austerity, debt economy, privatization, unemployment, corruption etc.) At the same time, the general mood of what we could call 'the Italian Facebook', following Daniel Miller's statement on the importance of referring to Facebook specifically,[3] is more inflected by the affect of anger and indignation directed at politicians than more structural economic and political issues. It is also possible to see how Facebook works in redesigning our political culture in the way a certain language, which we could define as 'troll-like', is emerging: aggressive, direct, popular.

So I would first like to ask you in which way you believe that communicating to a virtual mass public and mainstream media on social networking platforms is different from the more direct relation with the mainstream press, and how these two modes of media strategy interact? What were the features, for example, of the sociality of such platforms that you encountered or witnessed in comments etc.? Secondly, what do you think of the anti-social media activities during those times?

JD: I think you are right that there are three levels of organization, but they are all framed within how the platform itself channels communication. One thing that I noticed initially about the interaction between the general accounts and the commenters was that Facebook allowed for more dialogue to develop between many users, while Twitter focused the discussion between the account and the commenter more directly. In fact, when arguments developed on Twitter and more than four people got involved, it was nearly impossible to follow or provide a detailed response. In these situations the discussion would switch to Facebook or to the Occupy LA email list. When that failed, the discussion would come before the General Assembly or a special meeting would be held to address the issue. While you would never see a headline in the mainstream media that reads: 'Eighty Activists Meet Downtown to Address a Facebook Post', it was often the case that online communications and offline communications were held to the same standards of community accountability.

An early occasion of this involved the formation of The Committee to End Police Brutality, which consisted of about fifteen people who wanted to hold meetings that addressed police violence. Because the General Assembly runs on 100% consensus,

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3.   Daniel Miller, *Tales from Facebook*, Cambridge, UK: Polity Press, 2011.

this committee was blocked from forming by some of the more liberal police sympa-
thizers. Those who wanted to form the committee did so anyway through a Facebook
group called 'The Committee to End Police Brutality at Occupy LA'. This act of form-
ing online when the General Assembly refused to sanction them angered one man so
much that he printed out the members list from Facebook and began handing them
out at the General Assembly. As the flyers circulated, people began screaming about
the targeting of activists by the Los Angeles Police Department (LAPD). Of course, at
that time, no one knew who had made the flyers, so the cops were the first suspects.
Later, the person who made the flyers admitted it via email and was ostracized even
by those who did not agree with the committee. There was quite a bit of symbiosis
between the online and offline social worlds that led to both deeper confrontations
and some heartfelt resolutions.

Also, there was an issue with internal communications that was never really ad-
dressed that compounded the problems with Facebook and Twitter. For example,
while I never thought about the Occupy LA Twitter or Facebook as representatives of
the movement, just as I do not view the missives of the bureaucracy at my university
as representative of my views, others who were invested in the ideology of horizontal-
ism obviously did view the social media accounts as having a kind of representational
power over the General Assembly. But because there was no way to hold people
accountable to the General Assembly, as the camp grew so did the concerns about
the online accounts being mismanaged and the media committee developing their
own hierarchy. This perspective of social media as representative of group identity
definitely affected what content was deemed fit for broadcast and discussion, both
online and in the camp. Importantly, those ideas certainly affected who was selected
to speak to the mainstream media, but control over who spoke to the mainstream
media was only possible when interviews were away from the campsite.

**TT: At the campsite, there was less control of the contact between occupiers
and mainstream media than through online contact?**

JD: Life at the camp was, in a word, chaos. When it became apparent that the City
was going to shut down the camp, there were many reporters who showed up and
interviewed anyone willing to talk. Additionally, by the end of the camp many began
to devalue the roles of the General Assembly and committees in favor of doing what-
ever they wanted in the name of Occupy LA to get media attention. For instance, one
afternoon a small group wrote a letter to President Obama asking him to address
the Occupy Movement and they decided to hold a press conference to announce it.
Many in the camp would have disagreed with such a statement, but somehow the
press conference was tweeted out and announced on Facebook. This was the first
time that the national mainstream media showed up, including CNN. This enraged
those on the media committee who were staunchly opposed to the American gov-
ernment. Luckily for them, the press conference was not aired on any news stations
because the letter itself was difficult to understand and full of embellished rhetorical
statements. I think the mainstream media could tell there was deception afoot.

In sharp contrast to the civil rights movement in the 1950s and 1960s, where there
were some definitive leaders who represented the collective, Occupy remains leader-
less. In the current situation, the mainstream media has trouble connecting to and

narrativizing the Occupy movement because of its leaderless and decentralized principles. There is simply no one to contact for an authoritative interview about the movement. As well, organizers in the civil rights movement wanted to report accurately to the media, so that their stories would be covered more often. They did not want to overestimate their numbers or exaggerate the facts, but with Occupy LA the relationship with the mainstream media was strained from early on. In some instances it seemed like the media did not want to report on what we were actually doing, especially with the *LA Times* who often reported more about what they smelled in the camp than our large-scale actions. Other press outlets such as *Russia Today* and *Al Jazeera* reported more sympathetic accounts of the camp though. *Russia Today* were often in the media tent at the camp charging their cameras and talking to people about the movement. One reporter, Eddie Saade, from *Al Jazeera* slept several nights in the camp to get a feel for the community and he wrote a fair piece about it.

TT: How would you characterize the coverage of Occupy LA by the mainstream media compared to that by Occupy LA?

JD: Nothing was more telling about the mainstream media's coverage of Occupy LA than their focus on the camp's eviction. Many of us at the camp knew the raid was coming because we were friendly with the cleaning crew of City Hall. The cleaning crew was called and told not to come into work for the night. They relayed the info to us so that we could ready the masses, which included making sure homeless persons were escorted to a safer area and those with immigration problems had time to pack their things. Someone put together a Facebook event page for the 'Eviction Block Party' and over 20,000 people were invited. Your point about the importance of the Facebook event feature is true of the American Occupy movement as well. Being able to spread the word about an action to thousands of people without spending any money is incredibly important for networked social movements with few resources. As well, the event feature provides a space for dialogue so that participants can fine-tune the action, set up a code of conduct, and arrange transportation.

Hours before the eviction a limited number of media press passes were issued by the LAPD. Most were snatched up quickly by outlets who often covered the LAPD in a favorable way. So, outlets that were friendlier to the LAPD were able to grab footage from inside the camp, while other outlets, such as independent bloggers, streamers, and the Occupy LA media committee, were barred from covering the event with the threat of arrest. Eventually, all of the press were moved to the opposite side of the street when things got ugly and protesters who had climbed trees were being shot with rubber bullets.

All things considered, I thought the Occupy LA media committee did a good job that night of holding it together, filming as many arrests as possible, and publicizing information about bail. #OccupyLA was trending on Twitter and the admins were pushing minute by minute updates from the camp, so that people following could either find a way out of police blockades or into the camp if they so desired. All told, 1,400 police stormed the camp and 292 people were arrested that night. While the mainstream media portrayed the LAPD as heroes for showing restraint, those who were arrested tell a different story of malicious officers excited by the opportunity to twist arms and legs. Post-raid, those who were previously critical of the media committee were

relentless on Facebook and Twitter when commenting on the fact that not many on the media committee were arrested and that many of the streamers left the area after the first order to disperse. However, I am unsure if these critics take into account how important Twitter has become in directing the mobile masses during large-scale actions and that those feeds are operated by real people, who need to stay out of jail to remain effective.

Overall, the current mainstream media does not have a way to view the Occupy movement from the periphery. In order to understand it, they need to be embedded within it. While they are used to obtaining press releases and dealing with representatives with talking points in hand, occupiers eschew representation in many different ways. This makes it difficult for journalists to create a metanarrative and for academics to develop informative *petits récits* about the movement. Simply put, there is a dearth of traditional access points.

Perhaps the importance of paid journalists is now waning, as embedded bloggers tend to have more accurate and reliable firsthand accounts. When you are enmeshed in those social networks or if you know the right keywords, it is not difficult to find informative blog posts about direct actions from the point of view of the public. Also, juxtaposing many accounts of a single event in different formats from text to visual is now possible. In these contemporary social movements there is a substantial amount of the 'free labor' you have written about, where the work of creating and facilitating the movement is unpaid yet spontaneous and rewarding.[4] Granted, some have been able to finance their activism through donations, and electronic transfers of cash have greatly altered how money circulates within movements.

Back to the question about the mainstream press though, they have a relationship to people in power such as the City Council, the Mayor, and the police that grants them privileged access and legitimates the stories they decide to tell. It is their framing of the situation with verbal and visual cues of 'violent protesters' that sets in motion an apparatus of state oppression acceptable by the public-at-large. The task of independent social media is to switch that perception and show that Occupy is not just a 'non-violent movement', but rather, it is a 'peaceful assembly'. Because Occupy's largest access point to the public is corporate social media sites, these are channels that must be used to counter negative press. However, the use of corporate SNS allows the movement to link to counter-narratives located in other non-corporate spaces.

In any case, I would like to return to an earlier point you made about the networks solidifying old ties between people who already know each other offline and those that form online. I have witnessed a lot of online 'drama' play out where the argument hinges on someone's ability to mobilize more support online for their position. It's like an online version of tyranny of the majority, where some people are scared to voice their opinions online. The tone of the speech online seems to be much more divisive than that of the assemblies too. Still at Occupy LA, we attempt to have open face-to-

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4.   Tiziana Terranova, 'Free Labor' in Tiziana Terranova, *Network Cullture: Politics for the Information Age*, London: Pluto Press, 2004.

face meetings to discuss these problems or difficult issues, which have kept some great organizers from leaving over petty problems. Lately, this has shifted to attempting to remove argumentative and attention seeking people (trolls) from online forums, but there is no way to ban them from public spaces. So, the online space with the help of admins is easier to make homogeneous than the heterogeneous space of the commons. There is an important basic sociological point to be made here that groups thrive when they have consistent and well-articulated values that bond the members, but the main problem of the Occupy movement has been its extremely broad base and inconsistency in maintaining group values. This has led to many problems maintaining group solidarity.

In this situation, I think the thesis that SNS leads to more social isolation is probably true for some people. But for me, I must say it is not true. Throughout an average day, I use about ten different networking tools to communicate with other Occupy protesters: phone, Twitter, Facebook, websites, texts messages, video streams, conference calls, email, IRC, and Tumblr. It is a lot to manage and some is certainly more entertainment than involvement. There will always be people who experience this kind of pluralized connectivity as completely overwhelming. In my own research, I call this rhizomatic communication because of its many points of entry and contact. The most important way to guard against the Occupy network becoming too centralized or effacing the promise of horizontalism is to maintain the way our communication infrastructure is spread out across many different corporate and non-corporate networks. So, the only recourse for police is to attempt to pluck the nodes of the rhizome, one by one, but where one is squashed another sprouts.

TT: Yes, that is a feature of the underlying architecture of the internet, the internet protocol, that is difficult to undercut completely, even in these centralizing times. But how has the issue of corporate ownership of data produced by users affected the Occupy movement?

JD: Weirdly, when Twitter and Google ended their contract and the public became unable to search through tweets using Google Replay, it also became harder for the police to take out the key actors in new social movements. One occupier, Malcolm Harris, arrested in September 2011 along with 700 other protesters on the Brooklyn Bridge, had his Twitter account subpoenaed by the New York Court under suspicion that he was somehow directing people on to the bridge. Now Twitter is using its own lawyers to fight the case saying that these tweets, which were once public, are now protected by the Stored Communications Act. At first, Harris and his lawyer attempted to defend against this search and were told that he did not own the tweets anymore, Twitter did. Obviously Twitter does not agree with that because it would effectively make them responsible for the content of everyone's speech on their site, which would lead to much more trouble.

I don't know how this will end, but Twitter only allows you to see about 3,200 of a user's most recent tweets, maybe even less now. As well, even when a tweet is deleted, if it was once published, it remains in Twitter's archive. The saying, 'The internet is forever', is very true in the case of Twitter, who now sells access to its archive for a very hefty sum. Critically, this court decision will dictate how far the gaze of surveillance can reach into someone's online social world. But for many activists, using

Twitter or SNS in general to coordinate direct actions comes with the assumption that all the wires are tapped.

TT: So at the end of it all, or maybe still in the middle, and returning to our initial question: from your perspective, can corporate social networking platforms constitute valuable tools to organize dissent or do they tend to neutralize it in limited acts of virtual dissent? What is the value of corporate social media for anti-corporate social movements?

JD: There is a definite contradiction in the use of corporate social media for movements like Occupy, 15M, and Take Back the Square. There is also a lot of discussion about how to build our own software, tools, and even hardware. But this is where movements with few resources run into major problems. It's not just that you need finance to start up, but the maintenance of servers and cost of materials can be staggering. For instance, the site OccupyLosAngeles.org was bought from GoDaddy.com for about $12 for a year. Because an individual bought it with their credit card, they, not the collective, are entitled to renew it. This person is now asking for $2,000 to sell it to Occupy LA. Right now Occupy LA does not have the funds to purchase it, so the public facing web page will probably disappear soon. However, because so many are invested in circulating information about Occupy LA through Facebook and Twitter, this is just a kink in the chain of communication.

Also, this class war is not just about mobilizing people in the streets, it is also about access to information. The role of Anonymous and WikiLeaks in politicizing the internet as a space to be fought over has given many activists insight into the importance to truthful intelligence about American politics. In addition, if Web 2.0 is about connecting people's real identities together and bridging offline networks with online lives, then the option of remaining anonymous is essential for those who are mobilizing on the margins of legality. However, given the constant logging of IP addresses and the integration of mobile phones with GPS, it is becoming more and more difficult to organize untraceably outside of corporate spaces.

Given these conditions, many in the Occupy movement yield to the already built communication infrastructures of Facebook, Twitter, and YouTube because they are familiar, useful, and give access to the broadest possible audience. Critically, this is not to the exclusion of building and populating our own networks. InterOccupy has been working on providing a batch of tools and a series of hubs for coordinating distributed direct actions internationally. InterOccupy initially developed out of the New York City General Assembly's Movement Building Committee, who convened a conference call in October of 2011 with nearly eighty encampments on the same call. It was not obvious that local occupations desired to coordinate until some started suffering police repression and a need to share tactics developed. Also, email had failed to unite the movement as numerous email lists developed, but users quickly became overburdened by the volume of communications. Conference calling allowed for real-time dialogue with people who could be questioned to ascertain the veracity of their claims.

As a matter of telling the history of InterOccupy, it is crucial to understand that I can only provide one perspective at the moment. Each encampment that decided to reach out to others did so for very specific reasons. For instance, Occupy LA was

centrally located near approximately twenty other camps. I began traveling to San Diego, Irvine, and Long Beach in early October to help these assemblies avoid the pitfalls we encountered in LA, such as dealing with the medical needs of the homeless, gaining the approval of City Council, and acquiring enough food to feed everyone. I didn't expect to be mainly dealing with identifying provocateurs.

When Occupy San Diego was under extreme police pressure and facing eviction, a man kept interrupting the General Assembly stating that he was from Zuccotti Park and that Occupy Wall Street (OWS) was sending '1,000 people to [Occupy San Diego] to fortify their camp'. I did not think that was possible given what I read on blogs about the amount of people and funds in New York, but I had no way to prove it. When I dropped in on Occupy Long Beach the next day I heard a very similar claim about OWS sending people to Occupy San Francisco, who were also battling the cops. A friend at Occupy Los Angeles put me on the phone with his brother at OWS, who quickly confirmed that these were rumors. At that point, I knew that the best way to combat infiltration was going to involve building a robust online and offline network that allowed for all types of communication to flourish: face-to-face, phone, discussion boards, IRC, websites, social media, and so on. As luck would have it, I was contacted by the Movement Building committee around the same time. It was with members of the Movement Building working group in NYC, as well as members of various other occupations, that we were able to rapidly develop the communication infrastructure of InterOccupy and build solidarity across the movement.

Ironically, because the Occupy movement is comprised of local autonomous assemblies it was difficult to construct a trusted private social network because of fears of co-option and centralization of the means of communication. InterOccupy is managed by a group of about ten volunteers who engage with daily maintenance and about fifty others who help with tasks. InterOccupy has always remained an open group and publicly advertises how new volunteers can engage. Despite this openness, it was disheartening to read people's comments on our website saying that InterOccupy 'must be financed and staffed by the FBI'. Others in Facebook comments accused InterOccupy of being 'a front group for the Obama campaign'. Of course, none of this has turned out to be true, but I was also leery of some people's motivation after my experiences with Occupy LA. However, it may be true that actions organized through InterOccupy are less radical than those coordinated in face-to-face meetings as it is difficult to develop trust over the telephone.

Over the last year though, InterOccupy has helped organize the May First General Strike, the West Coast Port Shutdown, the Anti-ALEC protests, OWS's anniversary celebration and the Global Noise initiative, among many other actions. We also used some of the tools of InterOccupy to help spread information about the Quebec Student Strike that led to many global solidarity protests. For Occupy and other networked social movements, the question is not about whether corporate social media is good or bad, but rather how can we leverage all available communication tools and infrastructures to inform the public and bring them into our networks. Ultimately, activists pay the price in terms of privacy when initiatives for social change are promoted through corporate social media, but this may be a problem of online and mobile coordination more generally. Just as they build apparatuses of surveillance, we must develop the tools to undo them. For now, the trade-off of using corporate net-

works is the capacity to build a social movement with very few monetary resources by reaching and resonating with people all over the world. In the future, we hope to undo the need for them too.

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**MEETING THE ALTERNATIVES:
NOTES ABOUT MAKING PROFILES
AND JOINING HACKERS**

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LONNEKE VAN DER VELDEN

SOCIAL   PRIVACY   NETWORKS
DATA   DIASPORA   PROFILE
DIFFERENT   ALTERNATIVE
PUBLIC   PLATFORMS   LOREA
ENGAGEMENT   DECENTRALIZED

'But that's no better than Facebook!' was the response from the audience to a small research project on alternative social networks and their default settings.[1] By looking at the defaults, the ways to get connected to a network, and how to 'manage' one's profile, our team aimed to sketch out the different environments that social networking platforms had to offer.[2] Most of the decentralized, non-corporate platforms we chose to investigate had profile pages set to 'public' by default, even those that manifested a high level of privacy awareness. Given the severe criticisms against Facebook for opening up profile pages to the public, that finding surprised us. However, it also suggests that the priorities of alternative social networks lie elsewhere, beyond issues of profile management. These notes present some of my findings to the question: what are the issues being put forward by alternative social networks?

Debates about social media monopolies are often framed in terms of surveillance, data privacy, and user control. The collection, analysis, and trade of personal data are said to be the very condition of what we have come to understand as social media.[3] Meanwhile, activists and developers have been working on social networking technologies using alternative methods. 'Alternative' social networks are not widely known – let alone commonly used. Some criticasters blame this on their non-usability while defenders note they are still in an experimental phase.[4] Still others suggest that successful adoption of social networks depends on achieving social, economic, and regulatory alignment. For such arguments, Narayanan et al. provide interesting insights as in their research they have encountered about 80 decentralized networks.[5] But focusing solely

1. This was a research project of a few days during the Digital Methods Summer School 2011 that I conducted with Alex Haché and Sanjay Sharma. Networks that we included were: StatusNet, Crabgrass, Diaspora, Elgg, Cyn.in, N-1 (part of Lorea), Pinax, Smob, Open Atrium, Buddypress, Noosfero, Friendica, Mistpark, Thimble, Google wave, LinkedIn, Hyves, Twitter, Facebook, and Myspace.
2. Of course, default settings can be changed, however research on a slightly different area (browser settings) suggests that users hardly change default settings. See for example, Aleecia M. McDonald, 'Footprints near the Surf: Individual Privacy Decisions in Online Contexts', PhD diss., Carnegie Mellon University, 2010.
3. Dmytri Kleiner, 'Privacy, Moglen, @ioerror, #rp12', @dmytri, 8 November 2012, http://www.dmytri.info/privacy-moglen-ioerror-rp12/.
4. Debate between Harry Halpin (W3C) and Spideralex (Lorea) during the Unlike Us #2: Understanding Social Media Monopolies and their Alternatives conference, Amsterdam, 10 March 2012.
5. See, Arvind Narayanan et al. 'A Critical Look at Decentralized Personal Data Architectures', Cornell University Library, 21 February 2012, http://arxiv.org/abs/1202.4503. There is a presentation of this paper given by Narayanan available at: 'Centralized Collection and Control of Personal Data: Due for Disruption or Unstoppable Trend?', presentation at Mozilla, July 2012, https://www.youtube.com/watch?v=8gvjwgGJuHA.

on the success factors of alternative social networks risks biasing the comparison to-wards the issues associated with existing social networks. The work that follows tries to look at alternative social networks from a different angle by asking what a number of relatively new, experimental technologies might have to offer in the debate on social networking in terms of conceptual input. By turning away from the big platforms and turning towards projects that try to do things differently, a more significant array of is-sues can be added to the conversation. If centralized social media are conditioned by a business model of surveying and monetizing personal data, then what kind of models do experimental social networks rely on? How do they position themselves in this de-bate – if at all? What do they do with personal – and potentially useful – data? Do they throw data away or use it for the common good, or maybe something creative? What do alternative social networks want to achieve and for whom?

End User Meets Decentralized Social Networks at the Interface

Diaspora and Lorea are known as decentralized federated social networks. 'Decen-tralization' is a contested term: here it means that data is not stored on the servers owned by one central actor, but on federated servers. For instance, you can start your own 'Diaspora-pod', a sub-network hosted on a server of your choice, or a 'node' to connect up with the Lorea network. Diaspora has been broadly announced as a 'privacy aware' alternative to Facebook.[6] I looked at how Diaspora was generally intro-duced and I registered for an account at joindiaspora.com. Within the Lorea Network I registered at *N-1* (at n-1.cc), a platform that has been used by protesters of the 15M Movement in search of an online place to assemble and organize[7] – and later by sev-eral occupied squares in the winter of 2011. The comparison took place in January 2012 and many things have changed since then, still, I hope it serves as a description of what it feels like for a lay user first encountering alternative social networks.

Diaspora is the Privacy Aware Open Source Social Network that puts you in control of your information.

With Diaspora you decide what you'd like to share, and with whom.
Choice
Diaspora lets you sort your connections into groups called aspects. Unique to Diaspora, aspects ensure that your photos, stories and jokes are shared only with the people you intend.

Ownership
You own your pictures, and you shouldn't have to give that up just to share them. You maintain ownership of everything you share on Diaspora, giving you full control over how it's distributed.

Simplicity
Diaspora makes sharing clean and easy – and this goes for privacy too. Inherently private, Diaspora doesn't make you wade through pages of settings and options just to keep your profile secure.

Diaspora is a community supported Diaspora pod where you can open your account. You can also run your own pod! See diasporaproject.org

Code was updated from Github: 2012-03-14 13:12:57 -0500

Fig. 1. Diaspora's key terms.

How do these platforms define themselves and what are their core concepts? I'll start off with Diaspora, which is '[…] a free personal web server that implements a distrib-

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6.   See for instance, 'Facebook Alternative Diaspora Goes Live', BBC, 24 November 2010, http://www.bbc.co.uk/news/technology-11828245.

7.   As explained by X.net and Democracia Real Ya, Barcelona in a Skype session with Geert Lovink at 'Media Squares: over nieuwe vormen van protest en hun media', De Balie, 30 September 2011.

uted social networking service', where the project is about social freedom: '[…] a fun and creative community that puts you in control'.[8] Diaspora announced its agreement to abide by the Computer Freedom and Privacy's Social Network Users' Bill of Rights, which has a strong emphasis on data ownership, control, the right to self-definition, and the right to withdraw.[9] There are three important key terms: 'choice', 'ownership', and 'simplicity' (Fig.1).

In contrast, Lorea does not present key points but, whilst referring to the influence of the philosophy of Deleuze and Guattari,[10] declares itself to be 'a "hotbed" of social networks on an experimental field land'. The description goes as follows:

> Permanent Assembly of the Lorea Project: Its aim is to create a distributed and federated nodal organization of entities with no geophysical territory, interlacing their multiple relationships through binary codes and languages [...][11]

Their 'about' page makes clear that Lorea aims to 'create a distributed and federated organization of autonomous entities' and focuses on specific groups: 'We are developing social software for activist networks, we desire visibility but not to give up our privacy and security'.

Let's hold on to Diaspora's key terms: 'choice', 'ownership', and 'simplicity'. 'Choice' refers to being able to label your contacts, with the help of certain 'aspects', to ensure that you share your stories or pictures with the right people, such as friends, family, or colleagues etc, but also categories that users can define themselves. N-1, which offers options to 'circles' of friends, enables you to do the same. You can share with 'friends' and 'friends collections', but you can also join 'groups' defined by yourself or others. Diaspora's second key term 'ownership' highlights more differences between the two. Both platforms are non-corporate, but they show dissimilar ideas about how connections between users, their data, and the network should be organized. In Diaspora, data ownership is said to be with the user that posted the data. With 'ownership' Diaspora means that the user retains control over the data in the sense that they decide who to share, or not share, it with, such as a corporation that sends your data to third parties.[12]

One could argue that N-1 offers similar settings, however, the language used reveals more loosely articulated connections to one's data traces: it does not stress ownership as such. One can also see this in the functionalities, such as N-1's database of profile themes where inhabitants are invited to share their profile images. When I was trying to construe a new background for my profile page (a 'theme') to cheer up the default black profile page, N-1 turned out to have an enormous amount of profile templates: carefully designed images, including very personal ones, don't always stay with its

8.   The Diaspora Project, http://diasporaproject.org/ (accessed 20 January 2012).
9.   The Bill was drafted at the CFP's annual conference in 2010. The whole list can be read at, http://blog.diasporafoundation.org/2011/10/24/diaspora-adopts-computers-freedom-and-privacys-social-network-users-bill-of-rights.html.
10. Gilles Deleuze and Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia,* London: Continuum, 2009 (1987).
11. Lorea, http://lorea.org (accessed 20 January 2012).
12. This would also depend on who owns the server that is hosting the specific Diaspora-pod.

author, but they are there for common use (for an example see Fig. 2). Therefore, modifying one's profile page in N-1 is more than decision-making about what a person shows about him or herself ('who/what am I in what circles'), it also includes *adding* something to the network, in order for it to be re-used.

Fig. 2. The top bar is a shared profile picture, created by LaPaqui.

One of the future plans for the Diaspora project is the ability to export your data and take it with you (Fig. 3). In this way, Diaspora aims to provide you with a high degree of mobility for your 'data body part' in relation to the network, and to be able to travel on.

Fig. 3: Export your data body part in Diaspora

In their language and options, Diaspora and N-1 provide us with different imaginaries about how to relate to one's profile: dropping a part of your profile in the network or keeping it close with you. The point here is not that the respective platforms would be technologically unable to design the options the other one is offering, but that they present us with different ideas of what social networking could be about. A similar thing is noticed in the way they talk about privacy. In Diaspora this is related to the third keyword: 'simplicity'. In Diaspora decision-making about sharing should be 'clear and easy', especially when privacy is concerned. This means: no confusing pages with endless options. As such, 'privacy' in Diaspora must be something easily managed. What is privacy and simplicity for N-1? After logging in, at the bottom of the page, 'privacy' leads you to a Spanish page saying 'Estamos en ello [...] por ahora puedes leer Acerca de N-1', which means: 'We're on it [...] for now you can read *About N-1*'.[13] The 'About N-1' page states that privacy is something the contributors are concerned about. Privacy is not to be 'given up', and self-managed servers for individuals and activist groups are stated to be key for guaranteeing better security and privacy. For

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13. n.1, https://n-1.cc/pg/expages/read/Privacy/ (accessed 20 January 2012).

N-1,'privacy' seems to be understood in the context of data storage and an issue of trust in collectively managing the storage, and less, as in Diaspora, an issue of self-managing your presence. Moreover, decision-making about sharing on N-1 is all but 'clear and easy'. The default sharing option is sharing with logged-in inhabitants. Changing settings must be done for every widget separately, which includes pages, blogs, wire-posts, agenda, activity, message board, and more (Fig. 4). Widgets are present on the homepage and on the profile page: does that mean that one needs to reconfigure them twice?[14], questions that can be posed in the developers' forum. On N-1, privacy, at least for beginners, is not to be decided about in a clear and easy manner, but requires some effort and participation.
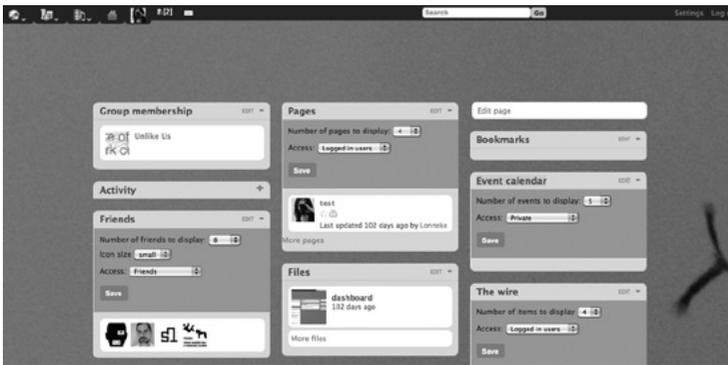

Fig 4. Widgets on N-1: for each Widget you can decide who can access.

These two social networks could be analyzed in terms of their push of different (political) agendas: Diaspora being closer to a liberal notion of the individual subject and manifesting a legal understanding of how to organize human rights within the social networking world, and N-1 expressing a more rhizomatic point of view of the world in which various experimental nodes can be productively interconnected and in which the status of the individual and the law is less explicitly defined.[15] At the same time, however, these social networks do more than simply draw on different available agendas: they also attempt to reformulate what is at stake in social networking. The work on 'participatory objects' by Noortje Marres is useful here, as it proposes to focus on how technological practices facilitate certain matters of concern.[16] According to Marres, we should not evaluate technological objects as solving issues of engagement, but look at how they reformulate different understandings of engagement and its impact. To give an example, in her work on practices of carbon accounting, Marres encounters different repertoires of engagement. One prevalent idea is that engagement should be made 'easy' and 'effortless', a specific liberal trope and an articulation of engagement in which technology helps you to be engaged with no disruption to your everyday practices.[17]

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14. The widget called 'pages' on my 'home' shares only with a specific group, but the exact same widget with the same files also shares with 'public' on my profile page.
15. Influenced by the concept 'rhizome' from Deleuze and Guattari, *A Thousand Plateaus.*
16. Noortje Marres, 'The Costs of Public Involvement: Everyday Devices of Carbon Accounting and the Materialization of Participation', *Economy and Society* 40.4 (2011): 510–533.
17. Marres, 'The Costs of Public Involvement', p. 523.

She also highlights an alternative articulation that makes explicit the labor that comes with carbon accounting: the hassle, the failures, and the way it changes everyday life. Freely translating her input, the question posed about experimental social networking platforms becomes not whether they *solve* problems of 'privacy' or 'data-monopolies', for instance, but how they provide terms in which such problems can be couched.

By looking closer at Diaspora and N-1 two different understandings of privacy are emphasized: privacy as the self-management of profile-sharing, and privacy as related to trust in a collective that takes care of data storage.[18] The social networks are also experimenting with user data attachments. Should data be carefully 'kept' with the one who produced it? Is it valuable, or usable, and to whom? The one emphasizes ownership and the mobility of profiles, the other works with a model providing spaces for common profile elements. In that way they work out different ways of dealing with data traces in the network. Finally, there are also different repertoires of engagement at play through the ways Diaspora and N-1 relate being on these networks to social life. Similar to the two articulations of engagement in Marres' work, we find in Diaspora's promise, that its privacy design entails no further disruption of one's everyday social life, an appeal to an idea of easy engagement. Privacy at N-1, on the contrary, is a matter of active involvement. Not only does N-1 point out the hard work on the server-side, but the widgets on your dashboard also keep reminding you of the fact that you relate to others in different ways for different activities, and in that way, its design refuses to reduce privacy to easy decision-making but makes it a continuous task.

As such, Diaspora can be understood as pitching the idea of mobile data, or the ability to pack up parts of your data body, whereas N-1 offers shared profile themes and stresses the need for safe data storage. These are valuable ideas to explore further: Should the mobility of data become an individual right? Which data should belong to individuals, which data should be common? And how should the safety of the server infrastructure be taken care of? Can this be taken up as a general goal by broader social movements? Moreover, if we think about 'privacy' as a concept that has been endlessly defined, contested, and reconsidered,[19] could the notion of participating objects be useful for privacy debates as well? Can we extend our discourse about 'privacy by design', which suggests that privacy has a certain shape or demands to be 'embedded' or 'implanted' in a technological architecture, to a repertoire concerned with 'privacy-aware technology', those technological practices which make one 'do' privacy?

Distributed Networks Working Together
The issues sketched above – interface design, profile options, philosophies – all relate to what alternative social networking platforms present front stage. The second Unlike Us conference, in March 2012, was an opportunity to get to know a few of these projects better. For me it was an incentive to spend more time with developers and have a closer look at what is happening backstage with these alternative networks, and come

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18. Felix Stalder touches upon related issues when making a distinction between privacy at the front end and privacy in back end in 'Autonomy beyond Privacy?', *Surveillance & Society* 8.4 (2011), p. 509.
19. Colin J. Bennett, 'In Defense of Privacy: The Concept and the Regime', *Surveillance & Society* 8.4 (2011): 485–496.

to terms with the ambitions envisaged by those involved in their development. Last May I got the following invite by SecuShare:

> We are setting up a hackathon event together with our friends from TheGlobalSquare on the topic of Distributed Social Networks. The plan is to sit down together and synchronize our development efforts; to distribute tasks, share code and reduce duplication. Hereby we want to invite you to hack with us.

Even though I was not familiar with the practice of hackathons, I decided to join anyway. Wanting to know what the targets are of these alternative social networks, what could be a better place than an event aimed at discussing the differences and commonalities of distributed architectures? According to Bruno Latour, contexts of 'innovations' are promising sites to study the 'social' being enacted.[20] With that idea in mind, I spent four days in one of the Berlin hacker spaces. Regular attendees were Secushare, The Global Square, Briar, Lorea, and GNUnet. Many others popped by for a day or so, including DeepaMehta, Project Danube, and Bitcoin, amongst others. Even people that were not in Berlin were included in the discussions through the IRC channel.

To summarize the goals of the hackathon I rely on a collaborative pirate pad that was used and on personal correspondence with the participants. The general goal was to work on decentralized solutions that were fast and secure, and more usable than centralized ones. At the hackathon, 'decentralized' had another meaning than that expressed with the discussion of Diaspora and N-1 above: the decentralized solutions the hackers were working on referred to distributed architectures, and not federated servers, which were considered as vulnerable. The 'architectural goals' of the hackathon can be summarized as follows:

– No central points of failure
– Resilience against attacks
– Unbreakable event distribution
– Resilience against legal attacks

A distributed architecture is expected to be more powerful: it will be more flexible, and diminish the chance for system breakdown, but it will also provide a better environment against censorship or aggressive (state) intermingling. With regards to wanting to offer protection but reach large groups at the same time, one of the common problems discussed was 'multicast encryption', which deals with how to encrypt information between a group of trusted peers, and also how to (re)configure the exchange of keys, in case of flexible group membership. For example, a use case could be: how to reorganize keys if one group member, that initially had a key, is excluded from the group? How to code this without having to start a new group? This also sparkled questions such as whether the history of the group stays visible for new members, and whether not just humans, but also the protocol itself, could leak group IDs. In other words: who communicates and who is included and excluded? Through such topics, the developers scrutinized and improved each other's methods.

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20. Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press, 2005, p. 80.

What this discussion about multicast encryption clarified for me was not the technicalities, but the imagined publics and the potential users for the participating platforms. As it turned out, there are a lot of differences between these several projects. The Briar project is less concerned with big groups, and more with highly secure one-to-one encryption. Briar focuses on designing a protocol that enables people to run existing applications in an encrypted way. Therefore, Briar aims at much more specific user groups than the other projects in the room because it wants to support people under heavy surveillance that need to communicate in a restricted network in which they already know each other. The mode of transport is not (necessarily) internet-based, but can be through USB sticks, Tor, TCP, and dialogue modems. Being dependent on the equipment that is available, Briar tends to be more device-centered. This makes Briar different than the other projects present at the hackathon that tend to work according to a format in which there is a protocol that 'grounds' the rest: a base on top of which other applications can be attached. For example, GNUnet is a peer-to-peer framework developed by an international network of developers that serves as a platform for many decentralized applications. Hence, social networking applications could be built on GNUnet. GNUnet and SecuShare are currently exploring collaboration. SecuShare would enable encryptions from many-to-many, which is currently lacking in other social networks. According to them, 'SecuShare dives into depths of encryption and privacy protection unheard of in chat and social platforms so far, so it is just what it takes to *really* leave Facebook behind. Federated social networks won't do'.[21] Lorea, as discussed earlier, is such a federated social network, providing the possibility for sharing messages, profile updates, and collaborative work. One outcome of the hackathon was that Lorea, in the future, might also be able to operate on top of GNUnet with SecuShare as an intermediary and make the move from the federated web to a distributed base.

The idea for 'The Global Square' (TGS), the final project to be discussed here, arose from from the Occupy Movement. Central goals include enabling mass collaboration, and ensuring open and public knowledge. The platform will be conditioned by Dispersy, a peer-to-peer architecture being developed by a research group from the University of Delft.[22] The platform aims to offer a communication infrastructure for the inhabitants of (previously) occupied squares and assemblies. It also wants to provide a niche for a real-time uncensored knowledge repository that will be made accessible through an Android app. At the hackathon, we spent an afternoon talking about user scenarios. TGS is being designed from scratch: that means that distinctions need to be made between different units and practices, such as Squares (places where people meet), Concentric User Groups (groups organized around a certain topic) and Systems (creations or instances of mass collaboration on topics of global interest). One prominent example of a 'System' is the 'News Commons'. The News Commons is an idea that was pitched in June 2011 by Wikileaks Central, an unofficial WikiLeaks resource site, which envisioned a combination of a crowdsourced news platform and a forum for citizen government:

> […] we wanted a place for a collaborative effort, but a very dynamic, Twitter speed effort, to handle all important information and news (the news we require in order to

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21. SecuShare, http://about.psyc.eu/Secure_share (accessed 26 November 2012).
22. See, https://github.com/triblerteam/dispersy.

govern ourselves). We would then take that information, analyze it against what we already know, match that to relevant law etc., and create action to stop corruption.[23]

This idea is going to be implemented in TGS. One challenge for TGS is enabling the dissemination of ideas through all of the different places and channels. Stigmergy, which indicates spontaneous self-organization through (indirect and) mediated effects, plays an important role in their philosophy. Therefore, in terms of potential user groups or publics, TGS seems to envision a self-organized vigilant public. As we see here, just as in the comparison between Diaspora and N-1, the various projects have different expectancies of the level of involvement of the people that will use these technologies, varying from a more pragmatic approach of motivating people to enhance existing devices already in use, in the case of Briar, to a higher anticipation of public engagement by providing a space for a whole new form of social networked journalism and action, in the case of TGS.

Decentralized Networks and their Publics

The question at hand is, of course, whether a larger public will become more familiarized with these networks – will they remain in an experimental phase or can they become part of everyday life? The issue of scalability is an important concern for developers, something everybody is aware of. I think Lorea's N-1 serves as a useful case study because it is an example of a social network that actually managed to grow by linking up with the 15M Movement. Yet, this did not happen without investment: the N-1 team organized workshops to familiarize people with this new technology, just as there were other kinds of workshops on the square.[24] That means that starting to use N-1 was part of a broader context of learning practices and also that its use had aims larger than the social network technology itself. N-1 is of course only one example of a network that has expanded in a particular context, in this case in the middle of persistent Spanish mass protests. But the other projects at the Berlin hackathon are concerned with particular issues as well, which could potentially bring in specific publics. It isn't probable that any will become 'the privacy aware alternative' to Facebook. However, it might even be more productive to not want them to fulfill this role, and instead look at them in their engagement with particular issues. Precisely here also lies potential for alliances with the public.[25] One example of such a move is given above: TGS's News Commons, a space that is not just for friending, but also for practices of analysis and journalism.

At this moment, there seems to be no 'public' for privacy in the context of social networking – at least not for privacy only. Perhaps this is because there is nothing to share through a notion, that in general, only appeals to the protection of the individual, despite all academic efforts of nuancing, socializing, or contextualizing the concept.[26]

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23. Heather Marsh, 'Needed Now: A News Commons', WL Central, 6 November 2011, http://wlcentral.org/node/2330.
24. Ideas presented by Spideralex at *Occupy Technology*, 11 March 2012, http://schijnheilig. org/2012/03/occupy-technology/.
25. Noortje Marres, 'No Issue, No Public: Democratic Deficits after the Displacement of Politics', PhD diss., University of Amsterdam, 2005.
26. See for instance, the work by Colin J. Bennett, 'In Defense of Privacy: The Concept and the Regime', *Surveillance & Society* 8.4 (2011): 485–496; and Helen F. Nissenbaum, 'Privacy as Contextual Integrity', *Washington Law Review*, 79.1 (2004): 119-158.

But the alternative social networks have much more to offer, both in their concepts of what social networking means to individual users, and in their ideas about what technologies could provide to collectives. At the same time, they express high expectancies from, and requirements of, potential users and publics. It is crucial to think through these requirements, and in that way, support these networks to push forward significant issues of our time.

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FACEBOOK VS. DIASPORA: A CRITICAL STUDY

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SEBASTIAN SEVIGNANI

USERS ALTERNATIVE PRIVACY
SOFTWARE INTERVIEW SOCIAL
ALIENATION EXPLOITATION
INFORMATION DATA FREE
PRODUCTION SURVEILLANCE SELF

> *I donated. I think it is a cool idea. [...] It's just their approach that the world could be*
> *better and saying, "We should try to do it."*
> – Mark Zuckerberg, CEO Facebook Inc.[1]

In an interview with *Wired* magazine, Mark Zuckerberg, Chief Executive Officer of Facebook, Inc., the world's largest social networking site (SNS) and one of the most visited web pages on the globe,[2] revealed that he has financially supported the development of Diaspora, an alternative, non-commercial SNS.[3] Mr. Zuckerberg is right in supporting alternative SNS. We should contribute to alternatives, such as Diaspora, in ways that are suitable for us, ranging from developing code and donating money, to simply using alternative SNS and helping make them known. The theoretical discussion that follows is based on empirical data gained in a qualitative interview study that was part of the three-year research project 'Social networking sites in the surveillance society'[4] and reveals that Facebook and other commercial SNS exploit their users and contribute to their alienation from their own achievements, themselves and other users structurally. Diaspora and other non-commercial SNS are meaningful alternatives and worth support from a perspective that ultimately wants to overcome exploitation and alienation.

A Comparison Between Facebook and Diaspora
Commercial SNS are steadily under pressure to gain profits. This became notable once again when Facebook published its business plans and figures in the course of its

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1. Ryan Single 'Interview with Mark Zuckerberg: I Donated to Open Source, Facebook Competitor', *Wired,* 28 May 2010, http://www.wired.com/business/2010/05/zuckerberg-interview/.
2. See, http://www.alexa.com/topsites for a daily update of the world's top websites.
3. Ryan Single 'Interview with Mark Zuckerberg: I Donated to Open Source, Facebook Competitor'.
4. For more information about the Social Networking Sites in the Surveillance Society project, including detail about the research methodology, see, www.sns3.uti.at. The research project has been funded by the Austrian Science Fund (FWF) and has further developed a critical political economy approach to social media. As part of the research project a qualitative interview study was conducted. We included a group of interviewees who are especially critical of (economic) surveillance and have a high knowledge of privacy issues, as well as a group of less concerned (standard) users. It eventually consisted of 30 Austrian students aged 20 to 34 (two-thirds women and one-third men), who have used or were using SNS, and that we found in the area of Salzburg, Austria. Participants came from a wide range of academic disciplines and study at one of the universities in Salzburg.

stock market launch[5] in February 2012. For instance, within these documents Facebook points to the increase of mobile access to its platform and promises shareholders it will heighten efforts to implement monetization strategies for its mobile users. Obviously the status quo situation and the status quo revenues are insufficient for Facebook and its potential investors; it plans therefore to also extend advertising to its users' mobile phones and to introduce targeted advertising ubiquitously.

How do commercial SNS, such as Facebook, make profit? Several critical media scholars have stressed that exploitation processes lie at the bottom of commercial media and SNS.[6] Most generally, exploitation is the structural appropriation of societaly-produced surplus: one societal group profits more from the achievements of another group than the latter group itself is able to profit from their own achievements.[7] This is only possible, when 'a complete separation between the workers and the ownership of the conditions for the realization of their labor'[8] is established. Facebook consequently is not owned by users, but owned by a small circle including Zuckerberg, banks, investors, stockholders, and so on. Exploitation is a major root of social inequality and the unequal distribution of opportunities in capitalism; exploitation causes and maintains the difference between the poor and the rich and reproduces the fact that on average the rich have more and better opportunities to realize a fulfilled life than the poor.

People are not only using social networking sites but are also producing something that is appropriated by the SNS's owners and sold to others in order to realize profit. Therefore we can speak about users as *prosumers*, a portmanteau of producer and consumer.[9] The SNS owner buys technical infrastructure, such as server parks and software components, as well as a labor force, like accountants, software developers, etc., and produces the SNS on which users can interact. While people use the site for different reasons, such as getting news, providing information, staying in touch with friends, making new relations, or organizing events, they produce a wide range of data. In this way, they are watched very accurately by the owners of SNS. Profit-oriented SNS develop massive systems of user surveillance and store 'literally everything', as a

5. David A. Ebersman, 'Facebook, Inc Registration Statement on Form S-1', Securities and Exchange Commission, 1 February 2012, http://www.sec.gov/Archives/edgar/data/1326801/000119312512034517/d287954ds1.htm; David A. Ebersman, 'Facebook, Amendment No. 2 to Form S-1 Registration Statement', Securities and Exchange Commission, 1 February, 2012, http://sec.gov/Archives/edgar/data/1326801/000119312512101422/d287954ds1a.htm#toc287954_2.
6. Amongst others, see for example, Mark Andrejevic, 'The Work of Being Watched: Interactive Media and the Exploration of Self-Disclosure', *Critical Studies in Media Communication* 19.2 (2002); Mark Andrejevic, 'Social Network Exploitation', in Zizi Papacharisi (ed.) *A Networked Self: Identity, Community, and Culture on Social Networking Sites*, New York: Routledge, 2010, pp. 82–101; Christian Fuchs, 'Labour in Informational Capitalism', *The Information Society* 26.3 (2010): 176–196; Christian Fuchs, 'The Political Economy of Privacy on Facebook', *Television & New Media* 13.2 (2012): 139-159.
7. Karl Marx, *Capital: A Critique of Political Economy: Volume One,* Middlesex: Penguin, 1976 (1867), pp. 270-272; 344; 486; 729-730.
8. Karl Marx, *Capital: A Critique of Political Economy,* p. 874.
9. Alvin Toffler, *The Third Wave: The Classic Study of Tomorrow,* New York: Bantam, 1984; Axel Bruns, *Blogs, Wikipedia, Second Life, and Beyond: From Production to Produsage*. New York: Peter Lang, 2008.

Facebook employee has admitted.[10] This puts the SNS owner in position to appropriate the data product that is generated by the users, and to sell it to the advertising industry. The advertising industry is very interested because Facebook's prosumer commodity enables them to place their adverts in a more targeted and efficient manner. In comparison to traditional TV broadcasters, for instance, who have a less clear image about their audience, Facebook can target detailed segments; scattering losses for the advertising industry are avoided. When our mobile phones are increasingly becoming advertising pillars, as Facebook has announced, we now know this has something to do with the appropriation of user-generated products and therefore the exploitation of users.

Exploitation is interwoven with another ethical key concept of critical theory, namely alienation.[11] According to Marx, alienation is given in capitalism as workers, or prosumers in the context of Facebook, cannot self-determine the circumstances of the realization of their labor force, and therefore cannot recognize themselves in their work and the products they have made. Marx speaks about four forms of alienation[12]: first, the producer is alienated from her/his product (product alienation); s/he has no control over the things that s/he is producing. On Facebook, users produce a wide range of data and engage in interactions, the control over this data, however, lies with the owners of Facebook and not with the prosumers. Second, the worker/user is alienated from the processes in which s/he produces things (process alienation). On Facebook, the owners of the SNS control the production side. For instance, Facebook decides which messages appear to the users and shapes or co-determines the interactions on the site. Marx then speaks of the consequences of this alienated laboring for the self (self-alienation) and for society (societal alienation). Self-alienation and societal alienation, broadly speaking, means that in capitalism, man-made things exercise force over man[13] and constrain people's freedom. That is, that the individual is other-directed and not in control over his or her life, on the one hand, and on the other, that individuals together are societaly alienated if they cannot consciously shape the society in which they would like to live. Users' own labor, their interactions, communications, and cooperation on SNS are exercising force over them: the more users participate in Facebook, the more powerful and profitable Facebook becomes due to prosumer exploitation, hence, the more it is able to monopolize and concentrate the means of communication and cooperation in the internet, the less it is bound to the common good and the more it can enforce its owners' private interests against the individual user and ultimately against all users together. An example would be that Facebook is able to dictate complex, confusing, and lax privacy policies, and present its users with sink or swim opportunities to accept them or be excluded from the world's biggest social networking site.

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10. Phil Wong, 'Conversations About the Internet #5: Anonymous Facebook Employee', *The Rumpus*, 11 January 2010, http://therumpus.net/2010/01/conversations-about-the-internet-5-anonymous-facebook-employee/3/.
11. Edward Comor, 'Contextualizing and Critiquing the Fantastic Prosumer: Power, Alienation and Hegemony', *Critical Sociology* 37.3 (2010): 309–327; Mark Andrejevic, 'Surveillance and Alienation in the Online Economy', *Surveillance & Society* 8.3 (2012): 278–287.
12. Karl Marx, 'Economic and Philosophic Manuscripts of 1844', in *Economic and Philosophic Manuscripts of 1844 and the Communist Manifesto*, Amherst: Prometheus, 1988 (1844), pp. 13–168.
13. Wolfgang Fritz Haug, *Vorlesungen Zur Einführung Ins 'Kapital'*, Berlin: Argument, 2005.

Exploitation and alienation are not only analytical concepts but also imply the goal of their abolition. On the way to this goal is one important strategy, and while this is not the only one and is probably not sufficient, it is supporting alternative, non-commercial SNS. Diaspora gained some attention in this context, not only because Facebook CEO Mark Zuckerberg donated to it. In 2010, four young New York university students were listening to a speech by law professor and free software foundation advocate, Eben Moglen, titled 'Freedom in the Cloud: Software Freedom, Privacy, and Security for Web 2.0 and Cloud Computing'.[14] Moglen, also known as the author of the dotCommunist Manifesto,[15] where he, inspired by Marx, propagates a contradiction between free information and multi-national capitalism in the age of the internet, describes in his speech the surveillance-based heteronomy that users face within an internet controlled by large corporate monopolists. Corporations, such as Facebook and Google, are able to dictate 'take-it-or-leave-it' terms and provide users with a dubious but working privacy-threatening deal: 'I will give you free web hosting and some PHP [personal home page tools] doodads and you get spying for free all the time'.[16] Moglen challenges the status quo by stressing that the situation need not be the way it currently is. Technological means that are currently available, he points out, provide us with a potential alternative to an internet controlled by powerful centers. He calls upon his audience:

> We're technologists, we should fix it [...] You know every day that goes by there's more data we'll never get back. Every day that goes by there's more data inferences we can't undo. Every day that goes by we pile up more stuff in the hands of the people who got too much.[17]

The four students were inspired by Moglen's call, and started developing Diaspora that soon and perhaps too soon was celebrated as the potential Facebook-killer. The euphoria came, on the one hand, from Diaspora's quick success in fundraising: via an internet platform, they were able to raise 200,000 USD to get their project running. On the other hand, Facebook has faced several privacy problems as well as growing user discontent.

By now, Diaspora has been released to a broader public and has about 380,000 users.[18] It has ensured itself further funding, and has built up an organizational structure, but the software is still in its alpha phase and remains a work in progress. Apart from Diaspora's early stage of development, it looks similar and provides features akin to those of well-known commercial SNS. In fact, it provided some functionalities first

14. Eben Moglen, 'Freedom in the Cloud: Software Freedom, Privacy, and Security for Web 2.0 and Cloud Computing', speech at a meeting of the Internet Society's New York Branch, New York, 5 February 2010, transcript published at http://www.softwarefreedom.org/events/2010/isoc-ny/FreedomInTheCloud-transcript.html.
15. Eben Moglen, The dotCommunist Manifesto, http://emoglen.law.columbia.edu/my_pubs/dcm.html, 2003.
16. Eben Moglen, 'Freedom in the Cloud: Software Freedom, Privacy, and Security for Web 2.0 and Cloud Computing'.
17. Eben Moglen, 'Freedom in the Cloud: Software Freedom, Privacy, and Security for Web 2.0 and Cloud Computing'.
18. See, https://diasp.eu/stats.html for a listing of Diaspora statistics. Last updated 24 November 2011.

that have then been adopted by commercial SNS. In August 2012, the founders of Diaspora announced that in a step-by-step fashion they plan to hand over complete control of the further development of the software to the community. This step gives more evidence that Diaspora is and will remain an alternative SNS project.

Not only is Diaspora an alternative to existing SNS in terms of its funding, it also differs fundamentally in its infrastructure and how it is produced. It is useful to distinguish here between two levels. One is the code level, where we are interested in how Diaspora's software is produced, what the means to produce SNS look like, and in which social relations they are embedded. The other level is that of the user, where the use value of Diaspora, such as its ability to satisfy users' needs, according to privacy for instance, is of interest. We will see that the code level interacts with the user level in a manner quite alternative to Facebook.

Let us start with the code level. In the information economy, the traditional business strategy to make profit is to close the source code of any program. This means that others are excluded, on behalf of private property rights, from copying and modifying the software. SNS production is, to a large extent, informational production. As it is widely known for the music and video industry, with the free circulation of media content on the web, and the criminalization of those who download it, informational goods come potentially into conflict with capital interests for the following reasons[19]:

– Information is produced and diffused by networks.
– Information is hard to control in terms of accessibility and ownership.
– As information is intangible, it can easily be copied and owned by many, which consequently undermines individual private property.

Facebook nevertheless enacts exclusion from the means to produce the SNS. It owns the operating software code to run its platform and also holds property rights in the database about its users' interactions.

The situation is different with Diaspora. It's mode of production, which can be called 'peer production',[20] is able to accommodate the new qualities of informational production. Peer production is a way of producing goods and services that relies on self-organizing communities of individuals who come together to develop and create a shared and desired outcome. Instead of being exchanged, outcomes and inputs of the working process are shared in the Diaspora developer community. Contributors to the code really own the conditions for the realization of their programming, thereby ensuring that work and the realization of their work cannot be torn apart and alienated from each other.

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19. Christian Fuchs, 'Information and Communication Technologies and Society: A Contribution to the Critique of the Political Economy of the Internet', *European Journal of Communication* 24.1 (2009): 76-77; Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom,* New Haven: Yale University Press, 2006, p. 60.
20. Yochai Benkler, *The Wealth of Networks: How Social Production Transforms Markets and Freedom*; Michel Bauwens, 'The Political Economy of Peer Production', *Post-autistic Economics Review* 37 (2009): 33–44.

Karl Marx argues that:

> At a certain stage of their development, the material forces of production in society come in conflict with the existing relations of production, or – what is but a legal expression for the same thing – with the property relations within which they had been at work before.[21]

In today's information economy we can observe the truth in Marx's argument; the Diaspora project is a concretization of the conflict he speaks of. The relations of production are those of peer production and in terms of property relations, Diaspora is licensed under the GNU's Affero General Public License (AGPL). This license for software code, which is provided by the Free Software Foundation, follows a principle called 'copyleft'. Richard Stallman, founder of the Free Software Foundation, describes how copyleft works:

> I make my code available for use in free software, and not for use in proprietary software, in order to encourage other people who write software to make it free as well. I figure that since proprietary software developers use copyright to stop us from sharing, we cooperators can use copyright to give other cooperators an advantage of their own: they can use our code.[22]

Copyleft uses existing property regimes to subvert them, and uses the power of the right to property to avoid exclusive appropriation of software code.[23] It can be understood as a self-protecting measure for peer production and as an expression of the conflict between technological developments, social relations within which it is produced in the information economy, and society's legal institutions to secure certain modes of production. It is self-protecting for it requires any adaption of the free software code to again be presented as free software and licensed under the copyleft principle. This clearly runs contrary to Facebook's model of excluding others from access to the operating SNS software and the aggregated user data, in order to make profit. Copyleft production suspends the capitalist logic where it is employed. There is then no more separation between prosumers and the ownership of the SNS. Prosumers can – if they are skilled enough – even participate in further developing the software and improving it.

One may correctly argue that SNS not only consist of information aspects, such as software; there is also material infrastructure, like server parks, that is necessary to run SNS, and here the copyleft does not apply. As with Diaspora, the software is not exclusively owned and controlled as users can become productive in a third way: they can run their own servers with the free Diaspora software installed (Diaspora calls this a

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21. Karl Marx, *A Contribution to the Critique of Political Economy*. Chicago: Charles H. Kerr & Company, 1909 (1859), p. 12.
22. Richard M. Stallman, 'Copyleft: Pragmatic Idealism', in *Free Software, Free Society: Selected Essays of Richard M. Stallman*, Boston: Free Software Foundation, 2010, pp. 129.
23. Paul B de Laat, 'Copyright or Copyleft?: An Analysis of Property Regimes for Software Development', *Research Policy* 34.10 (2005): 1511–1532; M. J. Wolf, K. W. Miller and F. S. Grodzinsky, 'On the Meaning of Free Software', *Ethics and Information Technology* 11.4 (2009): 279–286.

'pod'), and this way, they can contribute to a decentralization of the SNS. Unlike Face-book that processes user data in huge server parks, Diaspora consists of a potentially unlimited number of interoperating servers that are locally distributed and not con-trolled by a single organization. This means that uploaded user data are not stored and managed centrally. Theoretically, it is possible for everyone to operate such a pod. An alternative to setting one's own pod is that the software allows users to migrate from non-trustworthy pods to trustworthy ones. If the single user does not run their own pod and is not the SNS provider at the same time, Diaspora still hands over the control to users, and frees them from the dependency of powerful centers that use their data for advertising purposes, for instance.

Therefore, the Diaspora project should be seen in the context of initiatives that seek to empower users to run personal, self-controlled servers easily. For instance, the Free-dom Box initiative describes itself as 'a project that combines the computing power of a smart phone with your wireless router to create a network of personal servers to protect privacy during daily life'.[24]

Currently, there are a limited number of pods[25]; as such, Diaspora is not yet distributed widely. Nevertheless, the principle behind Diaspora is aimed at this direction as they say: 'Get started on a community pod and then move all of your social data to a pod you control. Diaspora's distributed design means that you will never have to sacrifice control of your data'.[26] The effect of this structure is that 'as soon as it becomes public that a company is exploiting the data of the users of its pod, they move away and the company is dead (in that sector). So the product shifts from you being the product to the software being the product'.[27]

We can now see how the code level affects the user level and enables greater user control and self-determination. In fact Diaspora avoids user exploitation and alienation:

> Yet our distributed design means *no big corporation will ever control Diaspora*. Dias-pora will never sell your social life to advertisers, and you won't have to conform to someone's arbitrary rules or look over your shoulder before you speak.[28]

In comparison to Facebook, the alternative SNS Diaspora is a progressive, capitalist commodity production-transcending outcome of the contradictions between develop-ing material forces of production and capitalist social relations within which they are embedded.

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24. Freedom Box Foundation, flyer about FreedomBox, http://freedomboxfoundation.org/doc/flyer. pdf.
25. See list at, http://podupti.me/.
26. Diaspora, The Diaspora Project, http://diasporaproject.org/.
27. Diaspora github wiki contributors, 'Why client side encryption is a bad idea', April 2012, https://github.com/diaspora/diaspora/wiki/Why-client-side-encryption-is-a-bad-idea/ fafbd3a6d10e021d996dc6c93b7429c9b20c8675, accessed November 2012.
28. 'Diaspora means a brighter future for all of us', Diaspora, http://blog.diasporafoundation. org/2011/09/21/diaspora-means-a-brighter-future-for-all-of-us.html, 21 September 2011. (emphasis in original).

Users' Need for Alternative SNS

One may ask, what do critical theories of exploitation and alienation have to do with the concrete usage of SNS? Aren't exploitation and alienation philosophical concepts that are too abstract to have any relevance? In our research project we conducted a study, and in interviews with users, found concrete empirical evidence for both concepts.

We assume that one aspect of feeling exploited is that users are kind of aware that people who own and control the SNS are appropriating societaly-produced surplus, and those interviewees therefore want compensation in return. Because we perceive SNS users as prosumers we can say that 'nobody is unproductive since each human being is producing and reproducing the commons appropriated by capital' and 'capital should in return give something back to society'.[29] We mainly identified one influential line of argumentation among those users who want compensation: interviewees see a bad or exploitative ratio between the SNS's profits and their own benefits of using the SNS. Interviewee 12 expressed this clearly:

> Facebook is earning so much money; therefore it is my opinion that one should receive something extra to using the site for free.

When criticizing exploitation, critical theorists not only disparage the extent of exploitation but also its preconditions, i.e. the right to have others work for you and the private control over the means to realize the work force (which is traditionally the private property in the means of production). Within this strand of criticism, alternative SNS with alternative preconditions become crucial. To only moan a bad ratio between SNS profits and the received advantages is based on a limited understanding of exploitation. Exploitation remains exploitation even when compensation is paid to the user in return. However the call for compensation, which we have found among eight of our interviewees, shows that a feeling of being exploited on SNS exists. From a critical point of view, compensation payments are progressive as they support the exploited and would limit the power of capital at the same time. In the context of an advanced critique of exploitation, we found an interesting argument among those who do not want compensation in exchange for the usage of their data. Interviewees argue that personal data should not be traded at all and that receiving compensation will not stop this; any compensation payment is based on such trading. For instance, interviewee 24 argued that it is not acceptable to trade personal data,

> [...] because my privacy means a lot to me and I think it cannot be compensated with material goods. Privacy is about my decision and my freedom so that I do not lose my self-control. They should not [be allowed to] exercise so much power over me.

Interviewee 9 is in line with this thinking when s/he argues that this would 'basically be a form of selling myself', and adds,

> Of course, in principle, right now I'm also selling me, however without receiving money in exchange. If one would really receive money then this would perhaps shed more light on the fact that they really take something from you [...] currently it is not recognizable.

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29. Christian Fuchs, 'Labour in Informational Capitalism': 193.

Interviewee 25 argues: 'I believe such things [...] information should not be for sale [...] In fact, I would then sell my privacy. I wouldn't do that, but maybe there are people that want to make such easy pickings'. Interviewee 27 contrasts these 'easy pickings' with 'honestly earned money that s/he prefers. These interviewees resist something that Facebook constantly does in its practice. Campell and Carlson call it the 'reconceptualization of privacy in the consumer's mind from a right or civil liberty to a commodity that can be exchanged for perceived benefits'.[30] Privacy, either in theory or in practice, is no longer perceived as a human right but as an alienable good that can be exchanged for money or other benefits. It is crucial to see that exploitation on SNS would not work if privacy was not for sale.[31]

We also found some evidence of prosumer alienation in our interviews that particularly concerns trade-off strategies between privacy needs and perceived user benefits, which users typically employ when they participate in SNS. Ellison et al. have conducted a study about trade-off strategies that SNS users employ in order to balance the tension between privacy needs, on the one hand, and benefits that are generated through SNS usage, on the other.[32] They describe three strategies for managing audiences: adjusting friending behaviors, which is to consciously reflect on which relationships are accepted on SNS; making privacy settings, the regulation of who can see what information; and limiting information disclosure, considered the lowest common denominator strategy for users where the only information released is that which is seen as appropriate for all potential audiences on the SNS. Contrary to the study at hand, Ellison et al. do not take into account institutional and economic surveillance, and privacy threats. Therefore their observed strategies cannot simply be adapted for our purposes. The strategy of adjusting friending behavior does not affect the economic surveillance threat that comes from the commercial SNS provider. As users cannot regulate surveillance for advertising purposes effectively by adjusting privacy settings, and Facebook is in any case able to collect and process user data regardless of user privacy setting choices, this strategy is of limited relevance in our study. The only thing SNS users can do is to limit their information disclosure, no matter if they are SNS literate or not. Indeed we found this strategy the most influential among our interviewees. It helps them reach a point where they say that the benefits of SNS outweigh the surveillance and privacy threats clearly. However, this strategy has the disadvantage that it may also limit the value of social networking for the user. A further, but rarely employed, trade-off strategy that we found in our interviews can be termed as 'subversive usage'. Interviewees are making false statements, using pseudonyms or separate email ad-

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30. John Edward Campbell and Matt Carlson, 'Panopticon.com: Online Surveillance and the Commodification of Privacy', *Journal of Broadcasting & Electronic Media* 46.4 (2002): 588.

31. For a more advanced analysis of the problem of privacy in capitalism as applied to alternative SNS see: Sebastian Sevignani, 'The Problem of Privacy in Capitalism and the Alternative Social Networking Site Diaspora', *tripleC: Journal for a Sustainable Information Society* 10.2 (2012): 600–617; Sebastian Sevignani, 'Privacy on Social Networking Sites within a Culture of Exchange', in Wolfgang Stützl, Felix Stalder, Ronald Maier and Theo Hug (eds) *Media, Knowledge and Education: Cultures and Ethics of Sharing*, Innsbruck: University of Innsbruck Press, 2012, pp. 89–104.

32. Nicole B. Ellison, Jessica Vitak, Charles Steinfield, Rebecca Gray and Cliff Lampe, 'Negotiating Privacy Concerns and Social Capital Needs in a Social Media Environment', in Sabine Trepte and Leonard Reinecke (eds) *Privacy Online: Perspectives on Privacy and Self-disclosure in the Social Web*, Berlin: Springer, 2011, pp. 19–32.

dresses, and propagating critical, 'subversive' information about the SNS on the SNS. Subversive information, for instance, is information about effective privacy protection opportunities and existing alternative SNS shared by the users on Facebook. Some of our interviewees are using browser applications that block advertisements and make them invisible to them. We interpret this closely connected to the subversive trade-off strategy. Subversive strategies, in our view, are a marker of user alienation.

Another interesting point that arose is that interviewees shared several reflections about the conditions of their trade-off strategies. Besides pointing to the dynamic nature of their trade-offs (for instance, that their trade-offs will change when their life situation changes), a third of our sample argued that there is a kind of heteronomy that determines the outcome of their assessments. What do interviewees mean with heteronomy? First, they stated that they have a lack of knowledge about how their data is exactly processed and that there was no informed consent in agreeing to the terms of use and privacy policy. Second, interviewees see a sort of dependency on Facebook. They said that it is simply impossible to waive all the social contacts and relations because it would denote a social exclusion for them. Third, interviewees feel powerless because there is only an in or an out, and no real opportunity to make differentiated decisions, such as an opt-out opportunity for advertising. In their view, SNS, such as Facebook, also put the burden of all responsibility for privacy protection on the user. Fourth, they argued that there is a lack of alternatives to Facebook's monopoly. Fifth and finally, we observed a kind of fatalism among the interviewees that can be interpreted as an experience of heteronomy too. In this context interviewees argued, for instance, that nothing is for free in life, that the situation will always be like it currently is, and that they, as members of the internet generation, are simply used to giving up privacy and accepting surveillance. The opportunity to change the problematic situation with commercial SNS does not come to their mind, although users own work, the interactions and data produced by them, is the precondition of how Facebook became that powerful – man made things exercise power over man.

We can see the following results as a conclusion to our conversation about alienation:

– First, there are clearly limitations to the decision-making freedom of SNS users. This becomes obvious when interviewees state that they have a lack of knowledge and as such have not given informed consent to the SNS terms of use. Several authors have outlined that SNS do not foster informed user content, but rather, they intentionally impede it.[33] This situation gives evidence of a first concrete form of alienation on SNS.
– Second, SNS users may indeed be free to chose, but not free to determine the spectrum of potential decisions. Empirical evidence for this form of alienation is given when users point to a loss of the 'social' in social networking, for instance, when advertisements automatically pop up on users' walls where they usually receive information

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33. For example, Jan Fernback and Zizi Papacharisi, 'Online Privacy as Legal Safeguard: The Relationship Among Consumer, Online Portal, and Privacy Policies', *New Media & Society* 9.5 (2007): 715–734; Marisol Sandoval, 'A Critical Empirical Case Study of Consumer Surveillance on Web 2.0', in Christian Fuchs, Kees Boersma, Anders Albrechtslund, and Marisol Sandoval (eds), *Internet and Surveillance: The Challenge of Web 2.0 and Social Media*, New York: Routledge, 2010.

about friends. Users only have 'sink or swim' opportunities regarding the acceptance of terms of use and potential changes, and also their acceptance of advertising and economic surveillance. The limited disclosure strategy is notable here. In fact, it means that users are forced to relinquish some social benefits that are inherent to SNS.

– Third, there are also indirect forms of limiting users' freedom on SNS that are harder to access empirically. Users voluntarily adopt views and forms of behavior that contribute to their further exploitation and alienation. We speculate that users' fatalism and the very acceptance of the status quo situation could be expressions of alienated self-governance. Another aspect is that interviewees welcome targeted, surveillance-based advertising on SNS not only because they do not fear privacy invasion, but also because they think that targeted advertising provides useful information, and respects and takes their needs seriously. Those users lack, or have skewed awareness of, the problematic implications of surveillance, such as discrimination and social sorting, lack of democracy and transparency, power concentration, limitations of freedoms and alienation, as well as commercialization, exploitation, and structural social inequality.[34] Contrary to this view we can point to the strong line of argumentation about the manipulating effects of (targeted) advertisements on SNS, which were also notable among our interviewees.

Attitudes Towards Alternative SNS

Although Diaspora received some attention and media coverage, particularly because Facebook faced and continues to face public outcries regarding their irrespective behavior towards privacy, due to the strong monopoly position of Facebook and Google it was hard to find interviewees that were familiar with these kinds of alternatives. General knowledge about alternative SNS, which is mirrored in our sample, was absent or nearly absent. As alternative SNS are mostly unknown and seldom used we provided users with information about existing alternative, non-commercial SNS, Diaspora and kaioo in particular, and asked them what they thought about these.

It is salient that all interviewees expressed a supportive attitude towards the introduced alternative SNS. The arguments of why interviewees support these are the following: first, users think that they embody the real network idea, which surrounds social relationships and community-building, instead of other purposes like gaining profit; second, interviewees were supportive because alternative SNS avoid the abuse of personal data and potential state surveillance; a third argument was that alternative SNS are non-commercial, free of advertising, and therefore do not need centralized power architecture; and fourth, these alternatives enable participation, self-organization, and self-determination (more) effectively than Facebook in the view of our interviewees. We were able to observe a close link between the arguments highlighting the non-commercial quality, the participation/self-determination aspect and those that point to the advantage of privacy protection.

We were further able to differentiate between two forms of user support. One is support in a non-material way and one is monetary. Whereas all interviewees supported alternative SNS, at least in terms of an idea, nearly half of our sample (14 out of 30)

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34. Christian Fuchs, 'New Media, Web 2.0 and Surveillance', *Sociological Compass* 5 (2011): 134–147.

replied positively to the question of whether they would also support alternatives monetarily. The amount of money they would spend varies between less or equal to 10 euros a year and more than 100 euros a year, where most of the supporters would pay less or equal to the 10 euros a year mark. Regarding monetary support for SNS, we could observe significant changes in attitudes once users became aware of, and informed about, the existence of alternative SNS: we asked our interviewees whether they would pay (directly or indirectly) for SNS, such as Facebook, if the sites would abandon (targeted) advertising, and most of them (17 out of 30) answered that they would not pay for it. Those who remain non-monetary supporters are in particular users who state that they find SNS not so important at all.

Although all interviewees supported the introduced concepts of alternative SNS, most of them however expressed doubts or criticism (in particular those who supported alternative SNS theoretically but would not support them monetarily), or at least talked about their potential challenges (in particular those who would also support them monetarily). The first and most frequent challenge that interviewees see for alternative SNS is that the number of their user will be (remain) limited. People are not aware of the existing alternatives and only particularly 'skilled' users, such as informatics or 'IT-nerds', will contribute to the alternatives actively. On the other hand, there is a monopoly of Facebook that is based on network effects. The more users an SNS has, the more attractive it is for potential users. The second perceived challenge, presented often as an influential line of argumentation, was to question the sustainability of alternative SNS funding. Users think that donations are an insecure funding model. In a way, this argument is connected to the third line of argumentation: interviewees do not trust the non-commercial quality of the alternative SNS. They also cannot imagine that nobody will capitalize on the alternatives. They fear a 'creeping' or gradual commercialization once the SNS are grown. Interviewee 3 expressed, 'It's all about financing. In the beginning, I mean, also Facebook was relatively harmless and then it surely has gone worse as it has become so big'. Fourth, interviewees argued that new or different power structures will emerge on the alternatives. For instance, major donors or specialists will influence them. Fifth, interviewees feared that participation, self-organization, and self-determination will turn out to be only formal or superficial. In particular for Diaspora, interviewees see the challenge that real decentralization cannot be realized due to technical limitations, or they are unclear whether everybody will be able to run a personal server, a precondition of a real decentralized and distributed power structure on Diaspora. On the other hand, they mentioned that a real decentralized architecture may be disadvantageous because it provides less control over avoiding problematic or 'dangerous' content, insecurity, and irresponsibility.

During the analysis of our interviews, we saw that there are two intensities of support for alternatives, a stronger supportive attitude that is expressed in the interviewee's willingness to spend money for the alternative SNS, and a weaker form of support. We interpret that strong support for alternatives, both ideally and monetarily, stems from experiences of alienation and exploitation on SNS. The more weak form of support is notable among interviewees who show no interest in monetary giving, who have an overall confidence with the existing SNS and are employing, for instance, the weaker pluralism argument in order to express their support. Interviewee 15 is an example of a weak supportive attitude towards alternative SNS:

I think that sounds well in principle, personally however, I find it not that bad that SNS are financed through advertising. We can take advantage from the fact that corporations are financing the SNS for us. I think that donation could be made for more meaningful projects.

Likewise, the idea of weak support describes interviewee 20 who replies to the question of whether they see a necessity for alternative SNS, after they spent some time criticizing the introduced alternative SNS, with the answer: 'Yes absolutely, am I contradictory? I think there should always be an alternative. There should be no monopoly, such as Facebook because then it can be abused'.

Weak supporters' thoughts about the challenges faced by the introduced alternative SNS models tends to take on substantial doubt and criticism. This puts the possibilities and realities of these models into perspective, but does not withdraw the overall supportive attitude that we found for alternative SNS. Criticism should be taken as starting points to improve Diaspora and other existing alternatives. We think that users' support for alternative, non-commercial SNS is ultimately grounded in their discontent with the consequences of online alienation and exploitation that they are currently facing.

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TOWARDS A FREE FEDERATED SOCIAL WEB: LOREA TAKES THE NETWORKS!

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SOCIAL   NETWORKS   LOREA
FREE   SOFTWARE   INHABITANTS
DEVELOPMENT   WEB
TOOLS   PEOPLE   PROJECT

2007. Everybody talks about Facebook. In the corridors of research centers, Web 2.0 is the new Holy Grail that will solve all problems at stake: the lack of social cohesion and formal citizenship, and digital and socio-economic exclusion. Internet researchers finally become hype as they dig into the sociabilities deployed by social networking sites (SNS): how they enable to bridge and (mostly) bond social capital, how they effect intimacy and privacy, and how they are redesigning social relations all over the place. At that time, critical analysis of their status as for-profit companies, their negative impact on net neutrality and decentralized web architecture,[1] and last but not least, their potential for social and political transformation were not yet issues of interest.

Some of the limitations of Web 2.0 have motivated the development of alternatives, which share the commonality of reclaiming a free and decentralized social web. Among them is Lorea, a federation of free social networks with a substantial community of 'inhabitants'. Lorea offers a wide variety of features for cooperation and secure communication targeted at civil society as a whole, i.e. citizens and social collectives, and political change organizations that are motivated by the desire to interact, share, devise solutions, and change things together. Given these features, the use of its networks has increased in parallel to the popular assemblies held in public squares and the cooperative social economy collectives boosted by the 15th of May Spanish movement.

Free and Federated Social Networks
The importance of building and sustaining your own social networking tools is not something most citizens or even activists are aware of. Through such tools it is possible to improve connections between individuals and groups, deal with identification, the sharing and exchange of resources, and even further, to enhance the development of networks of trust through ensuring the existence of affinity groups and their right to fork, the easing dialogues of darknets, conspiracy, and the building of worlds based upon justice.

Still, civil society has never limited itself to the passive use of technological tools developed by others (rich white men named Bill Gates and Steve Jobs, for example).

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1.   Tim Berners-Lee, 'Long Live the Web: A Call for Continued Open Standards and Neutrality', *Scientific American*, 22 November 2010, http://www.scientificamerican.com/article.cfm?id=long-live-the-web.

Contributing to the design and development of technopolitical tools enhances 'technological sovereignty'. There are examples of such a rich contribution by citizens, for example the development of communal radio and television broadcasting, the launch of the first non-military satellite into orbit, the invention of free software and licenses, and even the first news portal on the internet with an open and anonymous publication system, set up by the Indymedia network in 1999.[2] Concerning a free social networking system however, it was hard to find any viable alternative (save for some rare exceptions) until at least 2008. This delay, in comparison with commercial social networks, could perhaps have various reasons: a lack of material and economic resources (how does one compete with the storage, communications and entrepreneurship capacity of Google?), a disinterest for what many considered to be an adolescent fad, and the fact that cloud computing usually entails giving up the right to have a look at the code of the software you are running (which is an inalienable feature to most free software lovers). Additionally, social movements seem to have an inability to capitalize and innovate the fundamental principles they put into practice in cyberspace themselves: participation, horizontality and collective intelligence.

During the last years, the growing social concern about the risks associated with Web 2.0 (perfect paranoia is perfect awareness!) and web initiatives aiming at building free and decentralized social networks have finally shaped a field of operational experiences. Among them are BuddyPress, Crabgrass, Cryptocat, Cyn.in, Elgg, Identi.ca, Jappix, Kune, Pinax, Briar, Diaspora, Friendika, Secureshare, and Lorea, as well as protocols such as Google Wave Federation Protocol, OStatus, StatusNet and XMPP. Alternative approaches include desktop applications that run on your computer and communicate with other applications using open protocols, as well as browser apps based on universal authentication systems for profiles and identities. A second option is the decentralized network, which can be either distributed or federated. The latter means installing software on a trusted server application that communicates with other trusted servers. A distributed network uses P2P networks, which may not even need a dedicated server. Both are still in an early phase but are gaining interest among developers and activists.[3]

Commercial social networks look for maximum financial returns, and their business model has been based on collecting and monitoring data. This has led to cloud computing and software as a service (SAAS) approaches, where applications depend on remote servers. A loss of the ability to examine and modify the source code and associated databases is the result. Free social network alternatives are not compelled to gain commercial returns or to develop such a business model. Their concern is developing software and infrastructures that comply with their ethics and keep users in control of their data (whatever this exactly means in the end).

2. See, Dorothy Kidd, 'Indymedia.org: A New Communications Commons', in Martha McCaughey and Michael D. Ayers (eds) *Cyberactivism: Online Activism in Theory and Practice*, New York: Routledge, 2003, pp. 47-69 and DeeDee Halleck, 'Indymedia: Building an International Activist Internet Network', WACC, 2003, http://archive.waccglobal.org/wacc/publications/media_development/archive/2003_4/indymedia_building_an_international_activist_internet_network.
3. See, Social Web Incubator Group, 'A Standards-based, Open and Privacy-aware Social Web: W3C Incubator Group Report', W3C, 6 December 2010, http://www.w3.org/2005/Incubator/socialweb/XGR-socialweb-20101206/.

To achieve this they need to become sustainable, meaning they need to persist over time and meet their development aims in order to not become another 'steamware' project. They need to reach out to their public (because they are doing this for somebody other than themselves, right?) and see if they are considered useful and meaningful enough to be seeded and scaled. The perfect plan would be to achieve both steps at the same time, that is, to develop and improve free software and hosting autonomy for the movements, and to interact all the way with target communities, leaving channels for suggestion and active involvement open, accessible and easy to use. This may seem like a perfect model on paper, but it is far from easy to develop. Very often it turns out that too much time is consumed in system administration, and software development and time devoted to engaging, interacting, and training are more difficult to achieve. Together, this can lead to a burn-out, especially if it is a small team of developers who are also largely volunteers.

A possible solution would be the involvement of people with a 'low-techie' background: people who are able to understand the core coders' work and slang and help them document what they're doing, so tasks are more distributed. Documentation 'for human beings' – as underlined by Ubuntu's slogan, the operative system that popularized free operative system – would make the incorporation of newbies to the project much easier. Processes of technological sovereignty where communities and individuals become aware of their needs in term of information, communication, and networking, and consequently value being part of and/or supporting free alternatives to cover those needs are crucial elements to overcome current pitfalls. Engaging outside commercial and privative SNS is part of a legacy brought by communication guerrilla groups who share the common belief that 'the master's tools will never dismantle the master's house'. As with any process towards autonomy, it is in the long trip where the opportunities of its development lie.

Lorea
The case of Lorea deserves our attention because of the level of technical development and involvement it has generated in Spain, and because of our proximity to the team of developers. The project arises from a loose collective of people concerned about security and privacy in the social web, all of them with a background of free software and technological activism. Its launch was held in Madrid at the 2009 Hackmeeting, an annual gathering of hackers that took place at the squatted social center Patio Maravillas. Two already existing networks based on Elgg (the most common social networking free software at that time), Arte Libre Digital (ALD), and N-1, converged and decided to join efforts to further develop free, federated and self-managed networks. ALD was a meeting place for free culture artists and N-1 was started by media activists related to Indymedia Estrecho (the Indymedia node for Andalucia and Northern Morocco).[4] This explains the strong initial identification with antagonist social movements that continues to set the tone for a major part of the contents displayed in Lorea's networks.

Lorea means 'flower' in Basque and uses the metaphor of seeds to refer to each of the networks planted in a federated field of experimentation. The developer community has grown all across Europe and Latin America and is made up of virtually all

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4. Floren Cabello, 'Hackeando la Frontera. Presentación de Indymedia-Estrecho', *Razón y Palabra* 49 (2006), http://www.razonypalabra.org.mx/anteriores/n49/mesa1.html.

of the people who inhabit the social networks. They are not 'users' of a service but 'inhabitants' of a technopolitical project: several thousand people consciously using networks, many of them active in the development work, server maintenance, reporting and resolving of bugs, documentation, help to residents, and dissemination of the project. The project continues to grow without any formalized management, and survives day-to-day thanks to the work of inhabitants, the organization of virtual assemblies[5] enabled by the social software itself, and mutual cooperation over monetary exchanges. The aim is to ultimately only operate within alternative economies based on barter, exchange, and digital currencies, but for now the inevitable basic expenses, related fundamentally to server maintenance, are covered by voluntary donations. Recently, Lorea has adopted the Move Commons[6] 'Non-Profit, Reproducible, Reinforcing the Digital Commons, Grassroots' badge for defining and illustrating its core organizational principles, and aims at implementing it inside its software to allow groups to label themselves similarly if they wish to do so.

After more than two years of development with a strong emphasis on security and the creation of tools for group work, the LibrePlanet[7] 'GNU Social/Project' comparative analysis draws Lorea as one of the most interesting options for cooperative work and networking inside environments that do not aim to invade privacy, nor monitor, censor, or sell data to third parties. The project is firmly committed to implementing technologies that ensure messages circulating on its networks can only be read by their intended target. To that end, Lorea uses GPG (GNU Privacy Guard) encryption on some messages, and is currently working to extend this to all data exchanges. However, the project understands that 'privacy' in digital networking environments is an ambiguous notion, and pushes its inhabitants to improve their own security practices. Contrary to commercial platforms, Lorea ensures its networks are not 'configured by default', however it also believes that people seeking strong security should opt for other toolsets such as peer-to-peer networks, anonymizer software, and strong encryption tools.

Technically, the code for Lorea was a fork of Elgg, probably the most popular free software for social networking sites, and has now evolved into being a distribution that incorporates federation protocols and foreign languages. Regarding the specificities of Lorea's functionalities, over those that enable configuring one's own profile or working desktop, the real strong emphasis is on tools that ease information and communication processes within groups. Inside Lorea networks there is a shift from focusing solely on individual subjectivity and its particular ego towards the group as a node for achieving cooperation and political transformation. Building upon the idea that all groups share similar needs, such as having a space to express themselves (blog, wiki, etherpad), tools for discussion with each other (mailing list, forum, chat), tools to coordinate their activities (calendar, tasks manager, polls), and tools to share and build documentation processes (documents, links, images, videos sharing and assemblies management), Lorea networks emphasize a design of groups that acts

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5.　For more information see, https://n-1.cc/pg/pages/view/1048569.
6.　For more information see, http://movecommons.org/en/.
7.　'GNU Social/Project Comparison', Libreplanet, 21 September 2010, http://libreplanet.org/wiki?title=Group:GNU_Social/Project_Comparison.

as one stop shop for activating all resource needs. Another presumption being that through this easy mechanism more people will contribute actively to documentation and communication tasks, therefore democratizing access to information by all members of the collectives involved.

Lorea Features
Features include:
– Custom profile page and dashboard (inhabitants can choose which plugins
  or features to display).
– Multimedia galleries, wikis, pages, pads (based on EtherPad), blogs, bookmarks,
  task manager.
– Status updates, private and open messaging and chat among inhabitants.
– Events calendar.
– Inhabitants groups that can be open, closed or invisible and provide the tools
  listed above, plus a chat room and a discussion forum that every inhabitant
  can configure to work as a mailing list.
– Privacy-awareness: supports GPG encryption for messages and encourages
  sensible practices among inhabitants. The level of visibility is configurable for
  each item: private, for friends, members of a certain group, network inhabitants
  or fully open and indexable.
– Federation: supports Ostatus (updates across different seeds), OpenID (unique
  login for multiple sites), XMPP (instant messaging) and FOAF (currently as a tool
  for experimentation for future features.
– Each seed admin can install additional plugins (those developed by the Elgg
  community are suitable) and configure them according to their needs.

Impending implementation (fall 2012 new distribution Foxglove):
– Upgrade to Elgg 1.8 compatibility.
– Assemblies and decision-making plugin.
– Poll plugin.
– License attribution to contents produced in the seed, attribution
  of Move Commons badges to groups.
– Translation for contents created by groups.
– New CSS and layout.

Lorea currently counts fourteen federated networks[8] inhabited by collectives of social and political transformation dealing with social innovation, social economy, hacktivism, degrowth, and squatting, even though it should be noted that many of those networks are not active at this time. This is due to the demands from collectives to create their own seed without understanding that being on the net does not translate into networking, neither does having a free social networking tool translate into communities willing to share and cooperate. Our experience so far indicates that successful seeds are the ones with active community managers, virtual gardeners taking care of orientating new inhabitants, fighting spam, detecting bugs and also organizing face-

8.   N-1, Anillo Sur, Arte Libre Digital, Cooperativa Integral Catalana, REdesenred, MonedaBCN,
     Intermonedes, Cuenca, Ecoseny, Cooperatech, Sementeira, Red DRY, Enekenbat, and Luzablue.

to-face events in order to provide training and raise awareness (for instance: n-1.cc[9], cooperativa.ecoxarxes.cat[10] and anillosur[11]).

Through Lorea a high number of workshops are delivered to activists for free. This clearly takes into account the need to develop a dynamics based on inclusion, and the understanding that people who do free software development and system administration (sysadmin) work for a community, have a need to interact. This long-time involvement in the field, of the people engaged in the Lorea development team, might explain why N-1 exploded in the days following the massive demonstrations called for by the platform Real Democracy Now on May 15th, 2011. At the time, the squares of most Spanish cities were taken by people assemblies and turned into citizenship 'agoras', with the number of inhabitants in that seed multiplied by ten in less than one month. Many participants of those popular assemblies felt that they did not want to be neither 'merchandise in the hands of politicians and bankers' (as the motto for the May 15th demo stated), nor products in the hands of commercial internet companies. The new M15 inhabitants of N-1 wanted to strengthen their communication channels by using free and self-managed networks. This could ensure the continuity of the movement through the process of decentralization, when camps were dismantled and assemblies moved towards districts and villages.[12]

After a year and a half, many things have happened. The pace of growth of inhabitants has slowed down and many have left Lorea networks due to a variety of reasons: instability, such as search engine failures, log in problems and server crashes are part of the routine, making activist sysadmin very stressful (these have been partially fixed with the new FoxGlove Distribution); problems of usability where even tough requests have often been poorly reduced to interface adaptation so that they resemble known sites like Facebook or Twitter (the networks do need many usability improvements); incapacity to use it as a megaphone for reaching and mobilizing people (no critical mass of millions of users); lack of fun for procrastination or hanging around (the software is not helpful to make friends or random roaming); or the inhabitants simply lost interest in the M15 movement (once the surprise effect and the mainstream public opinion condescension are over).

On the other side, the stream of activity and publications has remained high and there is an increasing number of inhabitants involved in assemblies and cooperatives that choose N-1 for their internal communication, coordination and documentation. This seed includes over 5,000 groups and 44,000 inhabitants. On the other side, new alliances are beginning to emerge. Recently part of the Lorea team meet in Argentina and Brazil, creating many links with activists and collectives over there.[13] There are different projects aimed at integrating new functionalities into Lorea seeds, foreseen for the next

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9.   For more information see, https://n-1.cc.
10. For more information see, https://cooperativa.ecoxarxes.cat/.
11. For more information see, https://red.anillosur.cc/.
12. See, Marta G. Franco, 'Toma las Plazas, Toma las Calles, Toma las Redes', *Diagonal*, 20 July 2011, http://www.diagonalperiodico.net/Toma-las-plazas-toma-las-calles.html; and Daniele Grasso, 'N-1: Una Red Social no Mercantilizada es Posible', *Diagonal*, 20 July, 2011, http://www.diagonalperiodico.net/N-1-una-red-social-no.html.
13. For more information see, http://synap.tk/ and https://n-1.cc/pg/groups/489432/synaptk/.

years. For instance, the madcajan integration which enables geolocalization; modules for social money exchange, market places, and improved encryption; multilanguage possibilities; and federation facilities.

Towards New Pathways

In the Web 2.0 commercial paradigm, there is an uncertainty factor that has yet to be analyzed: the possible failure of data as a business model.[14] Facebook Inc. began selling stock to the public and trading on the NASDAQ in May 2012. By summer, the stock had lost half of its initial value and comments on the lack of reliability of earnings are flooding the economic press. The public offering of Twitter has been delayed several times and is still to be confirmed, while their attempts to create advertisement formats bearable for users are not reported to be commercially successful. It is too soon to know how the big companies on the social web are going to react, but in a worldwide financial crisis context, venture capitalists are not likely to keep the flow of funds needed to ensure their oligopolistic positions for long. The way out could be a bigger commitment to open source software, which could be used by the developers and users community to push for more open policies (i.e., the development of Kune is taking big advantage of Google's release of Waves under an Apache 2.0 free license). We should be aware of new opportunities in the near future, as the free software community has always been able to make synergy with companies exploiting open source as a solid business model.

On the other side of the coin, Lorea social networks are not interested in emulating the commercial SNS. The aim of the inhabitants of Lorea social networks lies in the development of tools that facilitate coordination among horizontal collectives and enables self-management dynamics. Their development should be self-sustainable as long as their inhabitants take care of the technopolitical tools they are using/shaping. That is to say that people should see software as a resource that needs care, so their community works for its preservation.

The self-management objective of the Lorea social networks has been a redundant issue over the development of the project. The transition of new inhabitants used to commercial services to a project with a need for personal commitment to contributing, and participating in its management, has not been really successful. Recently, the most involved people in the community have spotted many areas that require better communication and documentation so that every inhabitant can understand where they are standing and how they can help. As said on the index page: 'Don't ask yourself what the networks can do for you but what you can do for the networks'. Sustainability and scalability will only be achieved if a solid community understands that achieving technological sovereignty means to engage in N-1 dynamics, to contribute to the synergies of the commons. We are optimists even though we know that technological sovereignty is still a remote target and that we'll first have to tackle technological fetishism and programmed obsolescence, which are firmly rooted in consumerist ways of lives.

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14. See, Margarita Padilla, 'La Web 2.0 es una Paradoja Hecha de Grandes Negocios y Pasión por Compartir", *Público*, 10 April 2009, http://blogs.publico.es/fueradelugar/55/la-web-20-es-una-paradoja-hecha-de-grandes- negocios-y-pasion-por-compartir.

The other challenge is bottom-up and comes from the people that are participating in those global movements that started around 2011 in public square camping and occupation. The M15/Occupy network is tirelessly using social media to spread their messages, but as the initial outrage for the economic and political situation is being transformed into the collective construction of viable alternatives, the necessity of tools especially designed for self-organization and direct democracy grows more evident. The importance of 'technological sovereignty' can spread through this breeding ground and be accepted as one of the core demands of a movement that is overcoming the traditional technophobia found in radical movements, and in that way see hackers and internet geeks as human beings who can work together with (other) activists.

Focusing again on Lorea as a paradigmatic example, we will see the release of a new version of the Lorea software, and the mainstreaming of more documentation regarding self-management dynamics and how that could enable the overall sustainability of the project. Still, the adoption rates of the new version and the increasing number of inhabitants involved in management tasks will indicate if community-driven developments like this can lead to stable and solid alternatives.

To make the most of these opportunities, decentralization and distribution are key elements. There is no viable possibility, and no desire either, to create monsters like Facebook or Twitter. On the contrary, the point is to create a whole constellation of interconnected autonomous territories. Whether people are willing to inhabit Lorea or prefer any one of the projects listed previously is irrelevant, as long as they choose software with which they can manage their online identity autonomously. In other words, technological sovereignty regarding social networking systems still needs to be addressed in a wider way, but hopes are still high... Expect us.

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**UNLIKELY OUTCOMES?
A DISTRIBUTED DISCUSSION ON
THE PROSPECTS AND PROMISE OF
DECENTRALIZED PERSONAL
DATA ARCHITECTURES**

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**SOLON BAROCAS,
SEDA GÜRSES,
ARVIND NARAYANAN
AND VINCENT TOUBIANA**

PRIVACY   DECENTRALIZED
PROJECTS   SOCIAL   USERS
CENTRALIZED   SYSTEMS
DECENTRALIZATION   NETWORKS
FACEBOOK   DATA ARCHITECTURES

Introduction by Seda Gürses

Different communities see a wealth of social, legal, and political promise in decentralized architectures – architectures that are increasingly at the heart of debates among researchers, developers, artists, activists, and private enterprise alike. Much of this stems from a deeply held belief that decentralization has the potential to precipitate radical restructurings of power, even though questions remain whether a change in architecture can, on its own, address sumptuous issues like privacy, autonomy, and other fundamental freedoms on the internet, let alone the struggle for a just society.

There is a great diversity of opinion regarding how decentralization can address the problems that arise from the accumulation of power on the part of service providers like Facebook and Google. Some want to increase the number of service providers in the online commercial environment from which users can then choose (a goal shared by many in the Vendor Relationship Management [VRM] community); others want to create alternative networks that subvert centralized power, both politically and technically, and empower democratic participation (an objective shared by some of the more politically minded projects like Lorea and RiseUp).

The Unlike Us conference in Amsterdam in March 2012 brought to light some of the explorations of decentralization currently underway. It opened up a discussion that cut across many different communities: initiators of privacy-friendly decentralized architectures were able to share their work and, together with participants from various disciplines, engage in a critical dialogue about centralized and decentralized networks. The participants elaborated on the political economy and socio-political aspects of developing and participating in 'alternative' networks. The discussion thrived also because certain technical, economic, and value assumptions seemed to find consensus among the discussants.

Almost in parallel, and separate from the conference, a group of scholars presented a paper, 'A Critical Look at Decentralized Personal Data Architectures', that put under scrutiny many of these assumptions. The authors, Arvind Narayanan, Solon Barocas, Vincent Toubiana, Helen Nissenbaum and Dan Boneh, offer a historically informed assessment of a whole variety of decentralized systems, ranging from so-called 'infomediaries' to federated and distributed social networks. They argue that, despite much work and many different efforts, none of these projects have achieved widespread adoption and, so far, have not provided many of the supposed benefits

of decentralization. In a sense, the authors argue that few of the values routinely associated with decentralization actually inhere in the architecture and that adopting a decentralized architecture in and of itself does not solve many of the problems that its proponents aspire to address. They explain that this is especially true given certain economic dynamics and the state of technology. The paper then goes on to describe some drawbacks of the current proposals for decentralization and explores some of the technical and cognitive factors that limit their likely success. The authors also tackle the issues of open standards and interoperability, finding a number of problems there, too. Altogether, the paper presents a series of critiques of both the viability and efficacy of some of the current proposals for decentralized alternatives. Surprisingly, the authors shy away from a political analysis, focusing, instead, on (market) economic, social, and technical matters.

Had this paper been presented at Unlike Us Amsterdam, I believe it would have added interesting layers to the debates that took place at and around the conference. To make up for this missed opportunity, I proposed a collaborative process: engaging members of these communities to see what they make of the paper, with the aim of drawing on their feedback to help structure and inform an interview with the authors. The objective of the exercise was to hone in on points of both agreement and disagreement and to connect the apparent attraction of decentralization to a deeper appreciation of its trade-offs, its practical viability, its promise for preserving privacy, and its overall emancipatory potential.

The collaborative process worked as follows: we invited people engaged in 'alternative' social networks, peer-to-peer research, identity management ecosystems, as well as interdisciplinary critical thinkers to respond to the paper written. Of our respondents, the following agreed to also publish their responses: SpiderAlex, Jula, and Hellekin Wolf of Lorea, Floren Cabello of GlobalSquare, and Elijah of RiseUp; Jan Schallaböck, one of the co-organizers of the W3C event on the Federated Social Web that took place in Berlin in June 2011, and Antonio Tapiador from Social Stream, a participant of the same event; Sonja Buchegger, Benjamin Greschbach, and George Danezis, all of whom are involved in research on peer-to-peer social networks; Michael Herrmann, Günes Acar, Leandro Doctors, and Ero Balsa from COSIC and from the SPION project. Further, from the VRM world, or the identity management ecosystem as it is often called in the context of EU Projects, we received responses from Jaap Kuipers, Markus Sabadello (Project Danube) and Scott J. David (UW). Finally, Nicolas Maleve from Constant VZW, the feminist media and arts collective based in Brussels, responded to our request to contribute.

Based on the responses we systematically extracted prominent themes that then became the basis of the questions of a written interview with three of the paper's authors. Once the interview was written, we shared it with all the respondents and asked whether they would be willing to publish their responses along with the interview. While a short version of the interview is included below, a full version of the interview, together with the responses, are available online.[1]

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1. Available online through the Unlike Us webpage: networkcultures.org/unlikeus.

As the short description of our collaborative process makes evident, there are many parties in the world of decentralized architectures that we did not reach. We certainly did not address all the valuable issues that were raised by those who responded. And, surely we did not cover all that is at stake. Still, we sincerely hope that this contribution is as valuable as we aspired for it to be: another step in the ongoing and crucial discussions on the potential of decentralized privacy-friendly architectures. None of this would have been possible without those who responded to our request for comments, to whom we express our deep gratitude for their openness, trust in our process, and brilliant responses.

Seda: Tell me how you developed an interest in what you call decentralized personal data architectures and why you decided to write a paper assessing their prospects.

Solon: Arvind, Vincent, and I worked together on Adnostic, which showed that client-side profiling could substitute for extensive third party tracking in helping to target online advertising. Decentralization had played a crucial role in Adnostic; it meant that the tracking of users could be delegated to the browser itself, cutting out entirely the third parties that normally have to collect and centrally store user data. But we were somehow less convinced that decentralization could solve all the problems to which the architecture is now enthusiastically applied.

As part of a separate exploration of the various technical initiatives to make privacy policies more intelligible, I became aware of so-called vendor relationship management (VRM)[2] and I was surprised that none of the associated projects referenced the Platform for Privacy Preferences (P3P).[3] I had wanted to build a platform to distill privacy policies into more digestible units, but discovered that many past and current projects did much the same.[4] Realizing that there was a long history of stalled efforts, I thought it would be interesting and valuable to perform a survey.

At the same time, Arvind and Vincent had both become interested in decentralized social networks (partially, I think, because of the excitement around Diaspora). In discussing whether decentralized alternatives could really challenge the entrenched players (especially Facebook), we realized that there were some unexpected and interest-

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2. 'VRM is the customer-side counterpart of CRM […] VRM tools provide customers with the means to bear their side of the relationship burden. They relieve CRM of the perceived need to "capture", "acquire", "lock in", "manage", and otherwise employ the language and thinking of slave-owners when dealing with customers'. More specifically, VRM aspires to '[p]rovide tools for individuals to manage relationships with organizations', '[m]ake individuals the collection centers for their own data', '[g]ive individuals the ability to share data selectively', '[g]ive individuals the ability to control how their data is used by others', and '[g]ive individuals the ability to assert their own terms of service'. (Project VRM wiki contributors, 'Main Page', 4 September 2012, http://cyber.law.harvard.edu/projectvrm/?title=Main_Page&oldid=5867, accessed 1 December 2012).
3. 'The Platform for Privacy Preferences Project (P3P) enables Websites to express their privacy practices in a standard format that can be retrieved automatically and interpreted easily by user agents. P3P user agents will allow users to be informed of site practices (in both machine- and human-readable formats) and to automate decision-making based on these practices when appropriate. Thus users need not read the privacy policies at every site they visit'. ('Platform for Privacy Preferences (P3P) Project: Enabling Smarter Privacy Tools for the Web', W3C, 20 November 2007, http://www.w3.org/P3P/).
4. See, Parsing Privacy Policies, http://solon.barocas.org/?page_id=200.

ing overlaps to explore, specifically the common commitment to decentralization and personal data stores. We thought there might be important lessons to learn from these earlier projects, and we hoped to identify some recurring stumbling blocks.

Vincent: In my recollection, it all started with a discussion at a coffee shop between Arvind and Solon about whether or not Facebook was a monopoly. At that time, Google was under scrutiny for monopolistic practices in Europe. I think we debated whether Facebook was in a more monopolistic position than Google due to the network effects that prevented any new actor from becoming a realistic competitive threat. From there we started to briefly discuss plausible alternatives.

I was interested in this topic as I was quite enthusiastic about Diaspora when it started. I was at New York University (NYU) at that time and I remember several discussions during NYU's Privacy Research Group[5] meetings and in Helen Nissenbaum's class about how this could be a game changer and that a viable alternative to Facebook would discourage Facebook from changing its default settings again... I started to sketch in a slide deck how a caching-based system could smooth the transition from Facebook to a distributed system.

It was interesting to see that some communities reacted to Diaspora by saying that they had been working on this for months or years already. It revealed that several groups had followed the same path and that they had not yet taken off. Although Decentralized Online Social Networks (DOSN) were praised almost everywhere, some people started to criticize Diaspora – mostly because it got (involuntarily) hyped and overfunded. Maybe the project's initial objectives were overly ambitious, but the architecture itself seemed quite resilient in the face of critique. Beyond saying 'this is unrealistic', I thought reviewing common pitfalls would be a good thing.

Arvind*:* For some time I'd wanted to do a survey on a privacy-related topic, especially because of the number of different communities in which privacy is studied and the diversity of approaches they use. Also, I seem to be drawn to ideas that have been reinvented over and over again but don't quite succeed. I like to understand what the hidden pitfalls are. I feel this is a type of work for which academics are well-suited – taking the long view, looking for a common framework for understanding a variety of related projects, and examining them without a strong vested interest in the outcome.

My interest in decentralized social networking apparently dates to 2009, as I just discovered by digging through my archives. I'd signed up to give a talk on pitfalls of social networking privacy at a Stanford workshop,[6] and while preparing for it I discovered the rich academic literature and the various hobbyist efforts in the decentralized model. My slides from that talk seem to anticipate several of the points we made about decentralized social networking in the paper (albeit in bullet-point form), along with the conclusion that they were 'unlikely to disrupt walled gardens'. Funnily enough, I'd completely forgotten about having given this talk when we were writing the paper.

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5. See, Privacy Research Group, Information Law Institute, New York University School of Law, http://www.law.nyu.edu/centers/ili/privacy_research_group/index.htm.
6. See, Social Network Security Workshop, Stanford University, 11 September 2009, http://crypto.stanford.edu/socialnetsec/.

Seda: Can you draw out the relationship you see between decentralization and privacy more explicitly? How does decentralization address privacy, and what does privacy mean in the various projects that you surveyed?

Arvind: Decentralization is inextricably tied to privacy in two ways. The first is that the 'threat model' of privacy differs in the two types of architectures. In a centralized system, surveillance is almost inevitably an important potential threat. In a more decentralized system, client-side software security and theft of devices are much more relevant, especially when data is stored on users' devices. The second is that the types of levers available for protecting privacy are different. Centralized systems are easier for governments to regulate. danah boyd has argued that 'Facebook is a utility; utilities get regulated'.[7] The levers in a decentralized system are more technological in nature and in my opinion may require more user vigilance, expertise, and effort.

Solon: I think there's a reasonably clear dividing line between those projects that adopt a model of privacy as confidentiality and those that adopt a model of privacy as control. Some aim to return a degree of opacity to people's lives by shielding their activities from view, while others try to give people the means to more actively decide when and with whom to share information about themselves. Still others aspire to do a bit of both. But this one line separates out what are really the two main and very different types of goals of these decentralization projects: to provide people with a means of escape from the existing commercial offerings or to empower individuals in their ongoing commercial dealings. A more general – and perhaps better – way to think of this is in terms of each project's relative suspicion of institutions: where one group wants to avoid the need for people to even rely on institutions, the other wants to improve how people interact with them. These commitments map quite nicely onto the confidentiality and control paradigms of privacy.

Unsurprisingly, privacy as confidentiality tends to resonate with those who hold more libertarian views, ensuring that the actions of individuals are shielded from outside (i.e, governmental) view. But this understanding of privacy also holds significant purchase with people who subscribe to various forms of collectivism, insofar as it enables communities to self-organize outside (the purview of) the state. Decentralization is key to this strange affinity because it seems to permit political associations and solidarity in the absence of centralized political institutions. And – more to the point – it allows these associations to remain confidential with respect to the existing institutions of power. Think of the crypto-anarchist movements, for instance: while some groups lean more heavily toward the radical individualism of libertarianism, others are more excited about the prospect of voluntary collectivism.

Talk of control gets a bit confusing in this case because, although many of the more politically motivated projects put user control first, they do so with a focus on administrative control over the platform rather than the practical control mechanisms that individuals would use to manage their privacy. The reverse is true in most of the commercial initiatives: control is a matter of how well individuals can look after their own data and rarely about administrative authority over the platform.

7.　danah boyd, 'Facebook is a Utility; Utilities Get Regulated', *Apophenia*, 15 May 2010, http://www.zephoria.org/thoughts/archives/2010/05/15/facebook-is-a-utility-utilities-get-regulated.html.

Vincent*: While many DOSN have as a key objective to prevent information collection by a centralized entity, they also aim to help users easily transfer their data to prevent the establishment of walled gardens. Which is why, when we set off on this project, we were also interested in how monopoly interacts with privacy concerns, particularly how increased market share translates into more comprehensive tracking and data collection at the same time that it constrains new entrants and the move to alternative platforms.

When Facebook changed its default settings many people wanted to leave, but found that they had no obvious place to go. There were a few alternatives, but people had to do more than choose the social network that they wanted to join – they also had to make sure that their friends joined the same network. Unable to arrive at a common choice, users would have been scattered in different networks and, because of a lack of interoperability, they would have to maintain accounts on each network. People also realized that any centralized social network could follow Facebook's path once it captured enough users. Thus DOSN seemed like a very attractive alternative.

But as we started to dig into the existing projects, we noticed that a few projects focused mostly on the threat imposed by centralized entities and ignored other threats. For example, Arvind pointed out really early on that spam was a major issue (more on this later). The threat model that one has to consider when building a distributed social network becomes very complex. And then it becomes even more complicated when you start to consider human relationships: friends and acquaintances with whom you share data might become the entity collecting your information.[8]

Seda: Respondents repeatedly remarked that your analysis seemed to gloss over some crucial technical distinctions. For instance, some projects adopt a federated architecture, while others aim to be fully peer-to-peer. Certain arrangements involve single sign-on providers; others introduce a more general identity infrastructure. Other respondents pointed out the important differences in the way projects conceive of those who would use them: are they consumers, users, data subjects, or citizens – or even non-citizens? And then there's the commercial/non-commercial divide, a distinction that you do not make even though respondents frequently drew this contrast. Some even resisted the idea that business models should be at the core of their development efforts. What additional points of contrast would you add to your assessment in light of this feedback? How would attention to these details change your criteria for evaluating the success of these projects?

Arvind*: There are great differences in decentralization projects. Some have broad adoption as a goal and others don't. Still, many of these systems target markets with very strong network effects, and as such it isn't clear how feasible it would be to serve a niche. Similarly, if we examine the VRM vision, we are talking about nothing less than a paradigm shift in the way we do commerce, requiring major buy-in from retail giants

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8.   Benjamin Greschbach, Gunnar Kreitz and Sonja Buchegger, 'The Devil is in the Metadata – New Privacy Challenges in Decentralised Online Social Networks', Fourth International Workshop on SECurity and SOCial Networking, School of Computer Science and Communication, Stockholm, Sweden, 19 March 2012, http://www.csc.kth.se/~bgre/pub/GreschbachKB12_MetadataPrivacyDecentralisedOnlineSocialNetworks.pdf.

and restructuring of entire industry segments. So while some of these projects might be able to declare success even without mainstream adoption, I don't think that holds for the majority of the systems studied.

To me, the distinction between commercial and non-commercial projects is not so salient. The need for a business model is simply a fact of the world. A project might envision funding all their development, hosting, marketing, and other costs via volunteer donations, but that is also a business model! The type of claims that we make – i.e., that centralized systems benefit from economies of scale and have lower overall costs – are indifferent to whether a project is commercial or not.

Solon*:* It seems to me that earlier infomediaries (like Lumeria) and many of the more recent projects (commercial and non-commercial alike) attempt to deal with privacy in much the same way as P3P: by providing individuals with tools to better exercise choices regarding the disclosure of personal information to counterparties. P3P envisioned a world in which machine readable privacy policies would allow users to delegate the process of rendering these decisions to local 'user agents'; infomediaries positioned themselves as agents that could take on many of the same responsibilities, only remotely. A good deal of writing at the time made this explicit link between what some called 'negotiated privacy techniques' and infomediaries. That said, Lumeria – like other infomediaries then and now – had grander ambitions and actively sought to extend these techniques to all facets of online life by allowing users to pool their data in one location over which they would retain exclusive control.

For all their differences, FreedomBox and other initiatives that seek to extricate users entirely from commercial services, share this same interest in architectures that allow users to host all their own information. The point being that, in both cases, a personal data store is a prerequisite for meaningful control. But unlike infomediaries, FreedomBox and its ilk do not aim to facilitate more informed or more granular disclosure; they exist to avoid the need to disclose *any* information to third parties whatsoever. This is a crucial difference. I would still however stress that there's something quite remarkable about the fact that these communities both seize upon personal data stores, even though they adopt them for pretty much opposing purposes: one sees them as empowering consumers to more effectively engage with other market participants, while the other understands them as a way to avoid the need to turn to the market at all. The same architecture can accommodate very different politics.

With this in mind, it seems fair to ask whether it's right to even attempt to evaluate these projects on the same terms. This relates, I think, to the question about who these projects address and what it means to think of everyone who might partake of them as 'users'. We didn't set out to assess the size of these projects' user-base. We wanted, instead, to ask whether these projects had good chances of achieving their design goals and, further, whether the proposed (or existing) features were likely to produce the outcomes expected by their developers. As Arvind already remarked, however, attracting and actively engaging a large number of people is often crucial to the success of many projects, even on their own terms. But this is not always true, especially where the point of the project is not to compete with or complement the existing commercial platforms. Some projects propose to do something quite different: not vie for generic 'users', but rather serve the needs and interests of particular communities.

Seda: Are your criticisms peculiar to decentralized architectures? As many of the respondents pointed out, all systems have to grapple with scalability, reliability, and consistency. And hardware backdoors, security limitations, and the lack of refined access controls are by no means unique to these projects. Further, the P2P community faces problems that stem from limitations imposed by internet service providers and governments at the network layer. Is it sensible to talk about the challenges confronted by communities who want to adopt decentralized or distributed architectures only at the application layer?

Solon*:* These kinds of responses to our paper have been disheartening. We never intended to criticize decentralization as such. The point of our exercise was to show that many of the problems that we commonly ascribe to centralization actually carry over to decentralized systems – that these problems can affect *both* architectures. When some respondents pointed out that centralized services suffer the same problems, they were actually arguing our point: neither architecture easily remedies these problems or escapes them entirely. Some of the very serious problems we have with online privacy, for example, are not simply a function of the underlying architecture. Rather than solving these problems, decentralization might make them more difficult to address, both in theory and practice. Just think about the challenges in trying to ensure the appropriate flow of information between users on the same DOSN (the problem of 'lateral privacy', as it has become known) or the selective sharing of information in VRM (where people are burdened with the same – actually more – choices about what information they are willing to reveal to others).

Vincent*:* The problems that exist in centralized systems could be more severe in decentralized networks. Currently, in centralized architectures, the weakest element is probably on the client side: the browser or computer that is used to access a social network, for example. Even when a client is corrupted, safeguards can be implemented on the centralized system to prevent access to resources when suspicious behavior is detected (for instance, when a user starts downloading all his pictures and the pictures of his friends). If the computer that serves as a host in a distributed system is corrupted, these safeguards will be ineffective; in the worst case the attack could then be distributed to other peers.

The complexity and openness of federated systems in general make some problems harder to address. For instance, access control policies have to be supported across different systems. But I don't know if it's possible to translate 'provide access to friends of my friends' if I just know the system that my friends are using, but not the system that their friends are using. For example, in a federated system, your privacy is not subject to the nudges implemented by your system but to those implemented by the system that your friends use. In my opinion, this could create some serious misunderstanding, as an action that is discouraged in your network may not be discouraged in another network. For nudges to be globally effective, I think that designers would have to make sure that they enforce the same norms, but then they would lose some openness: federated systems that are not compliant would not be part of the federation. I think a good example is the warning[9] that is displayed on

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9.   See, 'Google+ and Privacy: A Roundup', *33 Bits of Entropy*, 3 July 2011,
     http://33bits.org/2011/07/03/google-and-privacy-a-roundup/.

Google+ when I want to share a 'limited' (i.e., not public) post. If I post something on Google+, I can expect that my friends will have the same warning if they want to share it... But in a federated social network, I cannot hold the same expectations. And I don't think decentralized and federated systems can easily address these issues. Developers will have to engage in far more cooperation and dialogue, which would be great if it results in some standardization around nudges that increases respect for privacy norms.

Spam is another serious threat to federated systems as such systems would have to trust each other to filter outgoing spam. Blocking incoming spam would also be far less efficient. Consider the experience of email, which also relies on a federated architecture: when an email provider fails to block outgoing spam, there is a risk that others will blacklist it. One of the key advantages of a federated system – that any new interoperable actor can join the system – also poses the risk that hosts dedicated to spam could constantly re-emerge and pollute the network.

Arvind*:* We really had two different kinds of drawbacks in mind: some that we claim are specific to decentralized architectures, and some that have been claimed to be *advantages* of decentralized architectures but which we contend are drawbacks shared by both types of systems. Sadly we didn't do a good job of separating the two.

To pick up on Vincent's example, nudges are easier to implement and work better in centralized systems because they can impose a standardized user interface. They work best when they elicit a predictable behavior in typical users. Privicons,[10] a project I like a lot, is a good example of nudges in a decentralized medium: users who adopt the browser extension can signal to the recipients of their email how they would like the email to be handled (i.e., 'Delete after reading/X days'). But this only works if the person receiving the email has adopted the extension, too. And because email is federated, making this a general standard would require buy-in from *all* email vendors and efforts to explain to users how the feature works. Compare this to the Google+ nudge that Vincent described.

Seda: The projects that you've pulled together in your review employ very different tactics to enforce norms around the appropriate flow of information. Some adopt access control, others rely on legal contracts, while still others resist any such limits, seeing them akin to DRM. What do you see as the feasibility, advantages, and limitations of these approaches to instantiating 'user control'?

Solon*:* Consent still reigns supreme, I think. None of these projects adopt a more substantive guiding principle about the appropriate flow of information; they instead try to put users in a better position to understand and determine how information moves. And this – with very few exceptions – means implementing a more sophisticated set of choices. Access control allows users to implement these choices as persistent rules; the ability to draft contracts that specify the terms of exchange and use aim at something very similar. Allowing people to 'own' their data does nothing to ameliorate this situation; it just substitutes contract negotiations for the reading of privacy policies (and, very likely, one form of legalese for another). In all circumstances, the person

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10.　See, www.privicons.org.

that developers have in mind when they build these systems is still a (hopefully more well-informed) rational actor with their own idiosyncratic tastes for privacy. But a more substantive notion of appropriateness, based on a sense that privacy serves a social value that exceeds the interests of the individual, is rarely baked into the design of the platform. Efforts to enforce choices through hard-coded use limitations that resemble DRM should not be confused for such principled design. As commonly proposed, they are adjuncts to notice and choice, not mechanisms to guide the movement of information according to contextual norms.

Vincent*: My experience of access control lists in social networks is that they can be used in two different ways: 1) to limit the audience of my post (selective broadcast) and 2) to protect my privacy (control reading access on my Wall). Note that, in the latter case, the effect is quite limited because shared data is hard to control in practice. Unfortunately, when you see a post in your NewsFeed, there is no associated context so you have to guess the sender's intent (selective broadcast or privacy). Obviously, these critiques also apply to centralized networks...

Seda: What we think of as centralized services often employ various forms of decentralization, from the use of open source software, to the move toward distributed computing, to the leveraging of activities performed by consumers. What is the appropriate way to conceive of the relationship between decentralized architectures and administrative control? And, more generally, to what extent would companies actually like to delegate certain tasks or responsibilities to their customers?

Arvind*: The distinction between architectural and administrative (de)centralization is an easy one to overlook. Now I don't think a system like Facebook is decentralized in any practically meaningful way. Sure, they might use PHP or Linux, but I don't see the underlying programming environment as having much to do with our analysis, as we're more concerned with the architectural decisions that affect personal data and user experience. Similarly, the rise of app platforms and user-generated content are all examples of successful 'decentralization' in a broad sense but not in a sense that is of concern to us. It is important to make the distinction here between delegating tasks and delegating control.

Vincent*: Some centralized services have been designed to run on a centralized architecture and – to handle their rapid growth and localization – have distributed some of their components. The fact that these systems are controlled by a centralized entity alleviates most of the issues inherent to distributed architectures: redundancy is controlled, reliability is assured to a certain point, interoperability is not an issue... From a user perspective, these systems behave as if they were perfectly centralized. For distributed systems to replicate the same efficiency in managing distributed architecture, some parts of the system would have to be centralized or hierarchical and some constraints would have to be imposed on users (i.e., shared storage, on/off time, and connection quality).[11]

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11. As one of the respondents mentioned, there have been few distributed systems that impose shared storage constraints on users (i.e., Darknet/Freenet), which means that users would have to deal with legal and moral issues of hosting other people's content.

Arvind: Google (with OpenSocial, Google+ etc.) and Twitter are examples of companies that have made forays into, started with, or promised a limited level of decentralization. However, most such services seem to eventually turn away from that direction – the trend lately has in fact been to exert increasing control over APIs. Decentralization is possibly good for society, with some caveats, but probably not good for business.

Vincent: Still, things could work in the other direction: operators of centralized systems may be motivated to extend their architecture with devices owned by the users. Companies could delegate the management of personally identifiable information to users and just link profiles to pseudonyms so that they could still conduct business while feeling less pressure from Data Protection Authorities and other privacy regulators. Critical pieces of information could be stored by the user, and the centralized system could host perturbed, non-personal data. For instance, only thumbnails and inaccurate records (a truncated name and birth date and a perturbed social graph) could be hosted on the centralized system while providing a pointer to the system hosting the accurate records (for instance, the cell phone or the set-top box of the end-user). An idea along these lines was developed in Polaris,[12] but the objective of this project was to enforce users' privacy with only little consideration for service providers' preoccupations with respect to existing privacy regulations.

Solon: Efforts to devolve certain responsibilities to individuals (that might seem like instances of meaningful decentralization) can still serve the interest of the entrenched players. Enrolling people in the management of their own data shifts the burden of ensuring privacy from the platform to its users. This relieves institutions of the responsibility to look after their stakeholders in the name of empowering them. That VRM can present itself as a win-win situation for individuals and institutions alike indicates just how non-threatening decentralization can be. And although improved interoperability and data portability often figure in decentralization projects, decentralization as such does not insist on these features.

Seda: Respondents pointed out that there are a variety of ways in which decentralized and distributed architectures can serve the interests of privacy: they mitigate the risk of leaking users' data, reduce opportunities for profiling, and curb function creep. The limits that decentralization places on aggregation, analysis, and secondary use are features, not bugs. But you point out that these come with significant downsides, too. Can cryptography help to avoid some of these trade-offs that you highlight (e.g., spam)?

Arvind: We shouldn't confuse two unrelated things: security breaches are unequivocally bad, whereas secondary use arguably benefits society, even if individuals don't like it. It's an interesting empirical question how the risk from server-side data breaches compares to the risk from (say) lost or stolen personal devices. As for the privacy benefits of limiting secondary uses that happen in the centralized model, that's the raison d'être of many of these systems. The reason that this is also a *disad-*

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12. See, Christo Wilson, Troy Steinbauer, Gang Wang, Alessandra Sala, Haitao Zheng and Ben Y. Zhao, 'Privacy, Availability and Economics in the Polaris Mobile Social Network', ACM Workshop on Mobile Computing Systems and Applications (HotMobile 2011), https://www.cs.ucsb. edu/~ravenben/publications/abstracts/polaris-hotmobile11.html.

vantage is that these are often features that people want, and even if some or most users don't want them, they exist in centralized systems because there is a monetary incentive for it. This takes us back to the argument about economic feasibility: an architecture that does not provide these features will have a tougher time competing in the market.

The limitation of crypto for enhancing privacy is a topic that I've studied and spoken about in some detail. I believe that the proponents of cryptography have massively underestimated the implementation costs and other practical problems with the paradigm of cryptographic privacy-preserving computations. To give just one example, a small change in what needs to be computed might involve re-doing the protocol (if not the math!), possibly affecting the database schema, and rewriting the code based on that. This is an extremely poor fit to the pace and style of modern web software development.

Seda: One respondent argued that building large distributed systems is simply very hard – much harder than building services that rely on centralized resources that benefit from economies of scale. Moreover, decentralized systems are not only confronted with interoperability issues, but also affected by the labor and cost it takes to replicate the desired application on different platforms. Are these indeed the main obstacles and are they sufficient to explain why decentralized alternatives can't compete with their centralized equivalents? And is the solution to this problem, as this respondent suggested, 'to focus on software components, infrastructure, and services that make the job of building privacy friendly architectures as easy as centralized ones'?

Arvind*: My own views on the implementation difficulty and inefficiency of decentralized architectures are in fact stronger than expressed in the paper, so I find a lot to like about this argument. However, it may be a stretch to say that implementation obstacles are a sufficient explanation to the exclusion of economic and cognitive factors. There are examples of architectures that are highly complex and expensive in terms of development labor that evolve due to economic feasibility: witness the byzantine world of online advertising compared to the straightforward alternative of charging for services (such as social networks, mobile apps, etc.)

My view has been that building more technological components is not what is required, and addressing usability and economic issues is the need of the hour, but after reading this response I'm willing to rethink that. Perhaps the world is not ready for decentralized personal data architectures, and perhaps there are centralization-decentralization cycles as some have suggested, instead of linear trends. Building out the technological plumbing could prove to be a smart bet in case the equation changes favorably in the future in terms of economic feasibility.

Vincent*: I think newcomers need differentiating features to attract users and encourage them to spend more time on their platforms. Many developers thought that privacy would be enough to attract new users but this 'feature' alone is not sufficient because, as was said before, these projects do not adopt the same definition of privacy. More generally, some users will find that Facebook privacy settings correspond to their expectations (or that they can use Facebook without revealing sensitive information) and would see no reason to leave Facebook. Others prefer to not use social networking at all.

I want to point out that I don't believe that decentralized alternatives cannot compete with their centralized equivalents. Centralized networks can also struggle with network effects. For instance, Google+ had a slow start although being supported fully by Google architecture. Had this project not been advertised and promoted by Google, I think it would have been quickly ignored.

Solon: I think there's a lot of merit to the argument that the technical difficulty of developing and operating decentralized services is *the* overriding reason for their lack of success, but I don't think this explains whether these projects would even improve the state of online privacy if they were able to meet their technical goals. A more elaborate supporting infrastructure won't ensure that these projects are any more likely to produce the intended or expected privacy outcomes. There are conceptual problems around privacy that are independent of the onerousness of getting a decentralized service up and running.

That said, there's no question that economies of scale can significantly reduce development and operating costs. Similarly, the ability to cobble together a supporting infrastructure for independent services based on modular, centralized parts encourages more experimentation and hastens the pace of innovation (how many projects owe their existence to Amazon's rentable storage and computing power?). And yet, for all that, developers don't seem particularly disinclined to build services based on decentralized architectures. Many, many, many[13] such projects already exist, some of which are even operational. And for all the development costs, work on them continues apace, including on those that attempt to disperse the costs of operating the service to local nodes (transforming this additional operational burden into something of a virtue). By spreading the responsibility of running the service across all users, they make up in community contributions what they lose in economies of scale (Bit Torrent serving as the obvious paradigm).

Given that these challenges have not dissuaded developers and have even given rise to clever ways of handling ongoing costs, the question is really how the relative difficulty of building decentralized services affects the nature and quality of the services on offer. This requires a shift from the perspective of the developer to that of the user – the idea being that people choose not to use decentralized services because they lack equivalent functionality or ease of use. But, as Vincent's point about Google+ makes clear, this alone does not seem to determine why people happen to adopt a service (or, more broadly, join a community). Equivalent features – and even the addition of novel privacy controls – don't produce sudden migrations. Google was only able to counteract the power of network effects through the *non-technical* work of promoting its service. And what this reveals is something that none of us fully address: how those players that are already a large part of our online lives are in an especially privileged

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13. See, Venessa Miemis, '88+ Projects & Standards for Data Ownership, Identity, & A Federated Social Web', Emergent By Design, 11 April 2011, http://emergentbydesign.com/2011/04/11/88-projects-standards-for-data-ownership-identity-a-federated-social-web/; Daniel Appelquist, Dan Brickley, Melvin Carvahlo, Renato Iannella, Alexandre Passant, Christine Perey and Henry Story, 'A Standards-based, Open and Privacy-aware Social Web', Harry Halpin and Mischa Tuffield (Eds) W3C Incubator Group Report, 6 December 2010, http://www.w3.org/2005/Incubator/socialweb/XGR-socialweb-20101206/; and 'ProjectComparison', Gitorious, 11 November 2012, https://gitorious.org/social/pages/ProjectComparison.

position to proselytize, both because they have the existing financial resources to do so and because they already have routine access to us.

Seda: In your paper, you make a strong case for the 'power of network effects'. And you argue that these effects are enhanced by what you call 'tighter integration'. What do you mean by this? And why did large social networks that should have benefitted from this (i.e., Geocities, MySpace, and Orkut) still fall victim to unraveling?

Arvind: It is inevitable in practice that administratively decentralized systems, with multiple competing interoperable implementations, would offer distinct experiences to users. It could be that interoperability is incompletely implemented, or some friction for users in utilizing interoperability, or something even subtler such as nudges implemented differently by different vendors. After all, if there were no substantive differences between implementations, the lack of diversity would defeat the point of administrative decentralization.

This is what I mean by tight integration in centralized networks and the lack thereof in decentralized ones. As we turn the dial from one end to the other, we can see that if there were little or no integration between different implementations, there would be no network effect, and if they were interoperable to the point of being indistinguishable, we would get a network effect that's as good as a centralized system. I'd expect that in practice it would always fall somewhere in between.

This is not to say that centralized systems don't have limitations to the network effect. The most familiar example is that different countries' populations are only weakly connected, so most services in markets with network effects have trouble breaking into some countries even if they absolutely dominate in others (i.e., Facebook and Google have trouble in Russia, where the incumbents in social networking and search are Livejournal and Yandex, respectively.) The evolution of the 'world map of social networks'[14] is very interesting. But where centralized networks have geographic islands, my claim is that decentralized networks additionally have islands of implementations.

This brings me to unraveling in social networks, a subject I find fascinating. The popular perception of what happened with MySpace (or even earlier, Friendster, classmates. com, etc.) is that a better or cooler service came along, and users switched. Obvious as this explanation seems, it's not true! Before Facebook, there was never a social network in the U.S. used by anywhere close to half of internet users. To simplify a bit, the way MySpace was supplanted by Facebook was that *new* users – those who weren't using social networks yet – mostly chose Facebook over MySpace because it was better. But actual *switching* didn't happen until Facebook was already about as popular as Myspace.[15] Due to the size of Facebook (measured as a fraction of the population in the markets it dominates), the dynamics by which Facebook supplanted MySpace

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14. Vincenzo Cosenza, 'World Map of Social Networks', Vincos Blog, http://vincos.it/world-map-of-social-networks/.
15. See, danah boyd, 'White Flight in Networked Publics? How Race and Class Shaped American Teen Engagement with MySpace and Facebook', in Lisa Nakamura and Peter A. Chow-White (eds) *Race After the Internet*, London: Routledge, 2011, pp. 203-222. Available at, http://www.danah.org/papers/2009/WhiteFlightDraft3.pdf.

cannot be used to supplant Facebook! This is a subtle but crucial point. Obviously I'm not saying that Facebook cannot be disrupted, but the process will have to be different, and I'd wager it would be dramatically harder. It might take nothing short of serious mismanagement, like Orkut failing to crack down on spam.

Seda: Finally, do you think that alternative (decentralized) networks, even if their design principles and adoption are different from what the market is used to, can spur experimentation and innovation, diversify access to technology, and create potential grounds for social and technical change?

Arvind: I don't doubt that alternative architectures can bring societal benefits, although perhaps to a lesser extent than some of the portrayals I've read. While I remain skeptical of the likelihood of broad adoption, I acknowledge that some of these systems can be meaningful even when used by a niche group. Besides, the existence of these projects serves as a hedge against companies trying to usurp too much power too quickly, and keeps awareness of these issues in the public consciousness. So I'm glad these alternatives exist in some form even if they are never widely used.

Vincent: I am pessimistic about the future of decentralized networks. I think that technologies and devices are evolving in the other direction: towards more centralization. Although mobile devices are more and more powerful, storage capacity has remained stable over the last few years. Look at the capacity of Apple devices: we're quite far from high capacities that we used to have on computers. The storage capacity of mobile devices is not increasing; in fact, you can store less content on your devices now that movies and pictures are displayed in higher resolution and thus require more space. Although this trend might be caused by the shift to solid-state drives (SSD), the main reason is probably that device manufacturers are pushing to move storage to the cloud. So my fear is that the device manufacturers (which are often service providers), by reducing local storage in favor of storage in the cloud, will effectively prevent the development of decentralized services.

Arvind: Like Vincent I believe the gradual trend is toward more centralization. Lately I've come to see a future of 'digital feudalism' as the most likely possibility, where a few brands offer tightly controlled, vertically integrated platforms (hardware, software, apps and content) that are even less interoperable than they are today. I don't see this as dystopian, but there are obvious problems with this world, and it is close to the antithesis of the visions that have animated many of the efforts we've discussed.

There are two ways in which I see things evolving past digital feudalism, not mutually exclusive. One is regulation aimed at limiting the power that private companies have over us – our identities, our relationships and communication, our thoughts, our selves. This regulation might have the side effect of making it easier for alternative architectures to thrive, although I'm not holding my breath. The second is classic disruptive innovation. If the mantra is to be believed, it's something that will start out as a toy, so it's hard to predict where it might come from. But it will probably not be something that's conceived of as a frontal assault on the status quo.

Solon: I would never want to dismiss the significance of projects that demonstrate how things might otherwise be. They serve a social purpose that exceeds their immediate technical goals because they signal that there is no natural order of things.

Like Adnostic: a proof-of-concept that undermines the moral authority of those who claim that the apparent benefits of targeted advertising are only possible when third parties are allowed to track users. From this perspective, I also think that there is a lot to learn from the poor uptake that projects like Adnostic experience. They have the (sometimes unintended) effect of throwing into sharper relief the non-technical factors that determine why certain projects flourish and others flounder. Ironically, their failure in the marketplace can be a political success.

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APPENDIX

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UNLIKE US RESEARCH AGENDA JULY 15TH, 2011

Unlike Us: Understanding Social Media Silos and Their Alternatives
Proposal for a research network, a series of events, and a reader.

Concept: Geert Lovink (Institute of Network Cultures/HvA, Amsterdam) and Korinna Patelis (Cyprus University of Technology, Limassol).

Summary
The aim of this proposal is to establish a research network of artists, designers, scholars, activists, and programmers who work on 'alternatives in social media'. Through workshops, conferences, online dialogues and publications, Unlike Us intends to both analyze the economic and cultural aspects of dominant social media platforms and to propagate the further development and proliferation of alternative, decentralized social media software.

If you want to join the Unlike Us network, start your own initiatives in this field, or hook up what you have already been doing for ages, subscribe to the email list. Traffic will be modest. Soon there will be a special page/blog for the initiative on the INC website. Also, an independent social network will be installed shortly, using alternative software. More on that later! List info: http://listcultures.org/mailman/listinfo/unlike-us_listcultures.org.

Background
Whether or not we are in the midst of internet bubble 2.0, we can all agree that social media dominate internet and mobile use. The emergence of web-based user-to-user services, driven by an explosion of informal dialogues, continuous uploads, and user-generated content have greatly empowered the rise of participatory culture. At the same time, monopoly power, commercialization and commodification are also on the rise with just a handful of social media platforms dominating the social web. These two contradictory processes – both the facilitation of free exchanges and the commercial exploitation of social relationships – seem to lie at the heart of contemporary capitalism. On the one hand new media create and expand the social spaces through which we interact, play, and even politicize ourselves; on the other hand they are literally owned by three or four companies that have phenomenal power to shape such interac-

tion. Whereas the hegemonic internet ideology promises open, decentralized systems, why do we, time and again, find ourselves locked into closed corporate environments? Why are individual users so easily charmed by these 'walled gardens'? Do we understand the long-term costs that society will pay for the ease of use and simple interfaces of their beloved 'free' services?

The accelerated growth and scope of Facebook's social space, for example, is unheard of. Facebook claims to have 700 million users, ranks in the top two or three first-destination sites on the web worldwide, and is valued at 50 billion US dollars. Its users willingly deposit a myriad of snippets of their social life and relationships on a site that invests in an accelerated play of sharing and exchanging information. We all befriend, rank, recommend, create circles, upload photos, videos, and update our status. A myriad of (mobile) applications orchestrate this offer of private moments in a virtual public, seamlessly embedding the online world in users' everyday life.

Yet despite its massive user base, the phenomenon of online social networking remains fragile. Just think of the fate of the majority of social networking sites. Who has ever heard of Friendster? The death of Myspace has been looming on the horizon for quite some time. The disappearance of Twitter and Facebook – and Google, for that matter – is only a masterpiece of software away. This means that the protocological future is not stationary, but allows space for us to carve out a variety of techno-political interventions. *Unlike Us* is developed in the spirit of RSS-inventor and uberblogger Dave Winer whose recent Blork project is presented as an alternative to 'corporate blogging silos'. But instead of repeating the entrepreneurial-startup-transforming-into-corporate-behemoth formula, isn't it time to reinvent the internet as a truly independent public infrastructure that can effectively defend itself against corporate domination and state control?

Agenda
Going beyond the culture of complaint about our ignorance and loss of privacy, the proposed network of artists, scholars, activists, and media folks will ask fundamental and overarching questions about how to tackle these fast-emerging monopoly powers. Situated within the existing oligopoly of ownership and use, this inquiry will include the support of software alternatives and related artistic practices and the development of a common alternative vision of how the techno-social world might be mediated.

Without falling into the romantic trap of some harmonious offline life, *Unlike Us* asks what sort of network architectures could be designed that contribute to 'the common', understood as a shared resource and system of collective production that supports new forms of social organizations (such as organized networks) without mining for data to sell. What aesthetic tactics could effectively end the expropriation of subjective and private dimensions that we experience daily in social networks? Why do we ignore networks that refuse the (hyper)growth model and instead seek to strengthen forms of free cooperation? Turning the tables, let's code and develop other 'network cultures' whose protocols are no longer related to the logic of 'weak ties'. What type of social relations do we want to foster and discover in the 21st century? Imagine dense, diverse networked exchanges between billions of people, outside corporate and state control. Imagine discourses returning subjectivities to their 'natural' status as open nodes based on dialogue and an ethics of free exchange.

To a large degree social media research is still dominated by quantitative and social scientific endeavors. So far the focus has been on moral panics, privacy and security, identity theft, self-representation from Goffman to Foucault, and graph-based network theory that focuses on influencers and (news) hubs. What is curiously missing from the discourse is a rigorous discussion of the political economy of these social media monopolies. There is also a substantial research gap in understanding the power relations between the social and the technical in what are essentially software systems and platforms. With this initiative, we want to shift focus away from the obsession with youth and usage to the economic, political, artistic, and technical aspects of these online platforms. What we first need to acknowledge is social media's double nature. Dismissing social media as neutral platforms with no power is as implausible as considering social media the bad boys of capitalism. The beauty and depth of social media is that they call for a new understanding of classic dichotomies such as commercial/political, private/public, users/producers, artistic/standardized, original/copy, democratizing/ disempowering. Instead of taking these dichotomies as a point of departure, we want to scrutinize the social networking logic. Even if Twitter and Facebook implode overnight, the social networking logic of befriending, liking and ranking will spread further across all aspects of life.

The proposed research agenda is at once a philosophical, epistemological, and theoretical investigation of knowledge artifacts, cultural production, and social relations, and an empirical investigation of the specific phenomenon of monopoly social media. Methodologically we will use the lessons learned from theoretical research activities to inform practice-oriented research, and vice versa. *Unlike Us* is a common initiative of the Institute of Network Cultures (Amsterdam University of Applied Science HvA) and the Cyprus University of Technology in Limassol.

An online network and a reader connected to a series of events initially in Amsterdam and Cyprus (early 2012) are already in planning. We would explicitly like to invite other partners to come on board who identify with the spirit of this proposal, to organize related conferences, festivals, workshops, temporary media labs, and barcamps (where coders come together) with us. The reader (tentatively planned as number 8 in the Reader series published by the INC) will be produced mid-late 2012. The call for contributions to the network, the reader, and the event series goes out in July 2011, followed by the publicity for the first events and other initiatives by possible new partners.

Topics of Investigation
The events, online platform, reader, and other outlets may include the following topics inviting theoretical, empirical, practical, and art-based contributions, though not every event or publication might deal with all issues. We anticipate the need for specialized workshops and barcamps.

1. Political Economy: Social Media Monopolies
Social media culture is belied in American corporate capitalism, dominated by the logic of startups and venture capital, management buyouts, IPOs, etc. Three to four companies literally own the Western social media landscape and capitalize on the content produced by millions of people around the world. One thing is evident about the market structure of social media: one-to-many is not giving way to many-to-many without first going through many-to-one. What power do these companies actually have? Is there

any evidence that such ownership influences user-generated content? How does this ownership express itself structurally and in technical terms? What conflicts arise when a platform like Facebook is appropriated for public or political purposes, while access to the medium can easily be denied by the company? Facebook is worth billions, does that really mean something for the average user? How does data mining work and what is its economy? What is the role of discourse (PR) in creating and sustaining an image of credibility and trustworthiness, and in which forms does it manifest to oppose that image? The bigger social media platforms form central nodes, such as image upload services and short URL services. This ecology was once fairly open, with a variety of new Twitter-related services coming into being, but now Twitter takes up these services itself, favoring their own product through default settings; on top of that it is increasingly shutting down access to developers, which shrinks the ecology and makes it less diverse.

2. The Private in the Public
The advent of social media has eroded privacy as we know it, giving rise to a culture of self-surveillance made up of myriad voluntary, everyday disclosures. New understandings of private and public are needed to address this phenomenon. What does owning all this user data actually mean? Why are people willing to give up their personal data, and that of others? How should software platforms be regulated? Is software like a movie to be given parental guidance? What does it mean that there are different levels of access to data, from partner info brokers and third-party developers to the users? Why is education in social media not in the curriculum of secondary schools? Can social media companies truly adopt a Social Network Users' Bill of Rights?

3. Visiting the Belly of the Beast
The exuberance and joy that defined the dotcom era is cliché by now. IT use is occurring across the board, and new labor conditions can be found everywhere. But this should not keep our eyes away from the power relations inside internet companies. What are the geopolitical lines of distribution that define the organization and outsourcing taking place in global IT companies these days? How is the industry structured and how does its economy work? Is there a broader connection to be made with the politics of land expropriation and peasant labor in countries like India, for instance, and how does this analytically converge with the experiences of social media users? How do monopolies deal with their employees' use of the platforms? What can we learn from other market sectors and perspectives that (critically) reflect on, for example, techniques of sustainability or fair trade?

4. Artistic Responses to Social Media
Artists are playing a crucial role in visualizing power relationships and disrupting subliminal daily routines of social media usage. Artistic practice provides an important analytical site in the context of the proposed research agenda, as artists are often first to deconstruct the familiar and to facilitate an alternative lens to understand and critique these media. Is there such a thing as a social 'web aesthetics'? It is one thing to criticize Twitter and Facebook for their primitive and bland interface designs. How can we imagine the social in different ways? And how can we design and implement new interfaces to provide more creative freedom to cater to our multiple identities? Also, what is the scope of interventions with social media, such as, for example, the 'dislike button' add-on for Facebook? And what practices are really needed? Isn't it time, for example, for a Facebook 'identity correction'?

5. Designing Culture: Representation and Software
Social media offer us the virtual worlds we use every day. From Facebook's 'like' button to blogs' user interface, these tools empower and delimit our interactions. How do we theorize the plethora of social media features? Are they to be understood as mere technical functions, cultural texts, signifiers, affordances, or all of these at once? In what ways do design and functionalities influence the content and expressions produced? And how can we map and critique this influence? What are the cultural assumptions embedded in the design of social media sites and what type of users or communities do they produce? To answer the question of structure and design, one route is to trace the genealogy of functionalities, to historicize them and look for discursive silences. How can we make sense of the constant changes occurring both on and beyond the interface? How can we theorize the production and configuration of an ever-increasing algorithmic and protocological culture more generally?

6. Software Matters: Sociotechnical and Algorithmic Cultures
One of the important components of social media is software. For all the discourse on sociopolitical power relations governed by corporations such as Facebook and related platforms, one must not forget that social media platforms are thoroughly defined and powered by software. We need critical engagement with Facebook as software. That is, what is the role of software in reconfiguring contemporary social spaces? In what ways does code make a difference in how identities are formed and social relationships performed? How does the software function to interpellate users to its logic? What are the discourses surrounding software? One of the core features of Facebook, for instance, is its news feed, which is algorithmically driven and sorted in its default mode. The EdgeRank algorithm of the news feed governs the logic by which content becomes visible, acting as a modern gatekeeper and editorial voice. Given its 700 million users, it has become imperative to understand the power of EdgeRank and its cultural implications. Another important analytical site for investigation are the 'application programming interfaces' (APIs) that to a large extent made the phenomenal growth of social media platforms possible in the first place. How have APIs contributed to the business logic of social media? How can we theorize social media use from the perspective of the programmer?

6. Genealogies of Social Networking Sites
Feedback in a closed system is a core characteristic of Facebook; even the most basic and important features, such as 'friending', traces back to early cybernetics' ideas of control. While the word itself became lost in various transitions, the ideas of cybernetics have remained stable in fields such as artificial intelligence, robotics, and the biopolitical arena. Both communication and information theories shaped this discourse. How does Facebook relate to such an algorithmic shape of social life? What can Facebook teach us about the powers of systems theory? Would Norbert Wiener and Niklas Luhmann be friends on Facebook?

7. Is Research Doomed?
The design of Facebook excludes the third person perspective, as the only way in is through one's own profile. What does this inbuilt 'me-centricity' imply for social media research? Does it require us to rethink the so-called objectivity of researchers and the detached view of current social research? Why is it that there are more than 200 papers about the way people use Facebook, but the site is 'closed' to true quantitative inquiry? Is the state of art in social media research exemplary of the 'quantitative

turn' in new media research? Or is there a need to expand and rethink methods of inquiry in social media research? Going beyond the usual methodological approaches of the quantitative and qualitative, we seek to broaden the scope of investigating these media. How can we make sense of the political economy and the socio-technical elements, and with what means? Indeed, what are our toolkits for collective, transdisciplinary modes of knowledge and the politics of refusal?

8. Researching Unstable Ontologies

Software destabilizes Facebook as a solid ontology. Software is always in becoming, and so by nature, ontogenetic. It grows and grows, living off of constant input. Logging on, one never encounters the same content, as it changes on an algorithmic level and in terms of the platform itself. What does Facebook's fluid nature imply for how we make sense of and study it? Facebook for instance willingly complicates research: 1. It is always personalized (see Eli Pariser). Even when creating 'empty' research accounts it never gives the same results compared to other people's empty research accounts. 2. One must often be 'inside' social media to study it. Access from the outside is limited, which reinforces the first problem. 3. Outside access is ideally (for Facebook and Twitter) arranged through carefully regulated protocols of APIs and can easily be restricted. Next to social media as a problem for research, there is also the question of social research methods as intervention.

9. Making Sense of Data: Visualization and Critique

Data representation is one of the most important battlefields nowadays. Indeed, global corporations build their visions of the world based increasingly on, and structured around, complex data flows. What is the role of data today and what are the appropriate ways in which to make sense of the burgeoning datasets? As data visualization is becoming a powerful buzzword and social research increasingly uses digital tools to make 'beautiful' graphs and visualizations, there is a need to take a step back and question the usefulness of current data visualization tools and develop novel analytical frameworks through which to critically grasp these often simplified and nontransparent ways of representing data. Not only is it important to develop new interpretative and visual methods to engage with data flows, data itself needs to be questioned. We need to ask about data's ontological and epistemological nature. What is it, who is the producer, for whom, where is it stored? In what ways do social media companies' terms of service regulate data? Whether alternative social media or monopolistic platforms, how are our data-bodies exactly affected by changes in the software?

10. Pitfalls of Building Social Media Alternatives

It is not only important to critique and question existing design and socio-political realities but also to engage with possible futures. The central aim of this project is therefore to contribute and support 'alternatives in social media'. What would the collective design of alternative protocols and interfaces look like? We should find some comfort in the small explosion of alternative options currently available, but also ask how usable these options are and how real is the danger of fragmentation? How have developers from different initiatives so far collaborated and what might we learn from their successes and failures? Understanding any early failures and successes of these attempts seems crucial. A related issue concerns funding difficulties faced by projects. Finally, in what ways does regionalism (United States, Europe, Asia) feed into the way people search for alternatives and use social media?

11. Showcasing Alternatives in Social Media

The best way to criticize platform monopolies is to support alternative free and open source software that can be locally installed. There are currently a multitude of decentralized social networks in the making that aspire to facilitate users with greater power to define for themselves with whom they share their data. Let us look into the wildly different initiatives from Crabgrass, Appleseed, Diaspora, NoseRub, BuddyCloud, Protonet, StatusNet, GNU Social, Lorea, and OneSocialWeb to the distributed Twitter alternative Thimbl. In which settings are these initiative developed and what choices are made for their design? Let's hear from the Spanish activists who have recently made experiences with the n-1.cc platform developed by Lorea. What community does this platform enable? While traditional software focuses on the individual profile and its relation to the network and a public (share with friends, share with friends of friends, share with the public), the Lorea software for instance asks you with whom to share an update, picture or video. It fine grains the idea of privacy and sharing settings at the content level, not the user's profile. At the same time, it requires constant decision-making, or else a high level of trust in the community you share your data with. And how do we experience the transition from, or interoperability with, other platforms? Is it useful to make a distinction between corporate competitors and grassroots initiatives? How can these beta alternatives best be supported, both economically and socially? Aren't we overstating the importance of software and isn't the availability of capital much bigger in determining the adoption of a platform?

12. Social Media Activism and the Critique of Liberation Technology

While the tendency to label any emergent social movement as the latest 'Twitter revolution' has passed, a liberal discourse of 'liberation technology' (information and communication technologies that empower grassroots movements) continues to influence our ideas about networked participation. This discourse tends to obscure power relations and obstruct critical questioning about the capitalist institutions and superstructures in which these technologies operate. What are the assumptions behind this neo-liberal discourse? What role do 'developed' nations play when they promote and subsidize the development of technologies of circumvention and hacktivism for use in 'underdeveloped' states, while at the same time allowing social media companies at home to operate in increasingly deregulated environments and collaborating with them in the surveillance of citizens at home and abroad? What role do companies play in determining how their products are used by dissidents or governments abroad? How have their policies and Terms of Use changed as a result?

13. Social Media in the Middle East and Beyond

The justified response to downplay the role of Facebook in early 2011 events in Tunisia and Egypt by putting social media in a larger perspective has not taken off the table the question of how to organize social mobilizations. Which specific software do the 'movements of squares' need? What happens to social movements when the internet and ICT networks are shut down? How does the interruption of internet services shift the nature of activism? How have repressive and democratic governments responded to the use of 'liberation technologies'? How do these technologies change the relationship between the state and its citizens? How are governments using the same social media tools for surveillance and propaganda or highjacking Facebook identities, such as what happened in Syria? What is Facebook's own policy when deleting or censoring accounts of its users? How can technical infrastructures be supported which are

not shutdown upon request? How much does our agency depend on communication technology nowadays? And whom do we exclude with every click? How can we envision 'organized networks' that are based on 'strong ties' yet open enough to grow quickly if the time is right? Which software platforms are best suited for the 'tactical camping' movements that occupy squares all over the world?

14. Data Storage: Social Media and Legal Cultures
Data that is voluntarily shared by social media users is not only used for commercial purposes, but is also of interest to governments. This data is stored on servers of companies that are bound to the specific legal culture and country. This material-legal complex is often overlooked. Fore instance, the servers of Facebook and Twitter are located in the U.S. and therefore fall under the U.S. jurisdiction. One famous example is the request for the Twitter accounts of several activists (Gonggrijp, Jónsdóttir, Applebaum) affiliated with Wikileaks projects by the U.S. government. How do activists respond and how do alternative social media platforms deal with this issue?

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APPENDIX
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UNLIKE US CONFERENCES

UNLIKE US #1 —————————————————————————
LIMASSOL, CYPRUS

WEDNESDAY, NOVEMBER 23, 2011

09.30 – 10.30
Launch Speeches
Speakers: Geert Lovink (Institute of Network Cultures) and Korinna Patelis (Cyprus University of Technology)

10.30 – 12.30
Social Media in the Middle East and Beyond
Moderator: Christopher Kyriakides (ETHCOM)
Speakers: Sara Hamdy El Khalili (EG), Rasha Allam (EG), Bassyouni Hamada (EG)

14.00 – 15.00
Initiatives
Moderator: Geert Lovink (NL)
Speakers: Oliver Leistert (HU) and Marc Stumpel (NL)

15.00 – 17.00
Social Media Activism and the Critique of Liberation Technology
Moderator: Dionisis Panos (CY)
Speakers: Achilles Peklaris (GR), Pavlos Chatzopoulos (GR), D.E. Wittkower (US, Skype Session)

18.00 – 20.30
Political Economy: Social Media Monopolies
Moderator: Korinna Patelis (CY)
Speakers: Robert W. Gehl (US), Martha Michailidou (GR) and Vasilis Kostakis (EST)

UNLIKE US #2 —————————————————————————
AMSTERDAM, THE NETHERLANDS
March 8-10, 2012 – TrouwAmsterdam

THURSDAY, MARCH 8, 2012

13.30 – 16.30
Showcasing Alternatives in Social Media
Briar, Crabgrass, Diaspora, Freedombox, Lorea, Secushare, Social Swarm, The-GlobalSquare, Thimbl and Unhosted.

16.30 – 17.30
Unlike Art
Works by Dušan Barok (SK), André Castro (PT), Mirjam Dissel (NL), Eleanor Greenhalgh (UK), Fabien Labeyrie (FR), Jonas Lund (SE/NL), Sebastian Schmieg (GE), Bartholomäus Traubeck (GE), Danny Van Der Kleij (NL), Jasper Van Loenen (NL), Marie Wocher (GE), Dave Young (IE). Moderated and curated by Silvio Lorusso (IT).

17.30 – 17.45
Coralie Vogelaar. Eat Shit And Die!

17.45 – 18.00
Bits of Freedom
Joris van Hoboken (Bits of Freedom, IViR)

CONFERENCE DAY 1:
FRIDAY, MARCH 9, 2012

10.00 – 12.00
Social what? Defining the Social
Moderator: Geert Lovink (NL)
Speakers: Jodi Dean (USA) and Dylan Wittkower (USA)

13.00 – 15.15
Artistic Responses to Social Media
Moderator: Josephine Bosma (NL)
Speakers: Thomas Cheneseau (FR), Tobias Leingruber (DE), Walter Langelaar (NL), Alessandro Ludovico (IT), Olia Lialina (DE)

15.30 – 17.30
The Private in the Public
Moderator: Lonneke van der Velden
Speakers: Raoul Boers (NL) and Ñusta Nina (NL), Arnold Roosendaal (NL), Frederik Zuiderveen Borgesius (NL), Seda Gürses (TR/BE), Caroline Nevejan (NL)

CONFERENCE DAY 2:
SATURDAY, MARCH 10, 2012

11.00 – 12.30
Software Matters
Moderator: Korinna Patelis
Speakers: David M. Berry (UK), Anne Helmond (NL) and Carolin Gerlitz (UK), Ganaele Langlois (CA), Harry Halpin (UK)

13.30 – 15.30
Pitfalls of Building Social Media Alternatives (Debate)
Moderator: Caroline Nevejan (NL)
Taking part in the debate: Carlo v. Loesch/lynX (DE) from Secushare, Michael Rogers (UK) from Briar, Elijah Sparrow (USA) from Crabgrass, Spideralex (ES) from Lorea and James Vasile (USA) from Freedombox

15.45 – 17.30
Social Media Activism and the Critique of Liberation Technology
Moderator: Oliver Leistert (HU)
Speakers: Philipp Budka (AT), Stefania Milan (CA), Max Schrems (AT), Eleanor Saitta (USA)

APPENDIX

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AUTHOR BIOGRAPHIES

Solon Barocas is a doctoral candidate in the Department of Media, Culture, and Communication and a Student Fellow at the Information Law Institute at New York University. His research examines epistemological issues in the mining of data, the everyday practices of data miners, and various ethical and political concerns raised by data mining. He is also attached to the Intel Science and Technology Center for Social Computing, where he works under the Algorithmic Living research theme.

Caroline Bassett is Reader in Digital Media and co-director of the Centre for Material Digital Culture at the University of Sussex in the UK. Her research explores the digital transformation of cultural forms and practices and she has published widely on narrative and new media, gender and media technologies and recently on sound and the digital environment. She is currently researching forms of hostility to computing and working on network projects on culture and community and on the relationships between science fiction and everyday life.

Tatiana Bazzichelli is a Berlin-based researcher, networker, and curator, working in the field of hacktivism and net culture. She is part of the transmediale festival team and works as a Post-doc researcher at Leuphana University (Lüneburg), as part of the Innovation Incubator / Centre for Digital Cultures, and the Institute for Culture and Aesthetic Digital Media. She received her PhD at Aarhus University (DK), where she is now Affiliated Researcher. Her book *Networking. La rete come arte | The Net as Artwork* was published in 2006. In 2001, Bazzichelli founded the AHA:Activism-Hacking-Artivism project. See, www.networkingart.eu.

David Beer is Senior Lecturer in Sociology at the University of York (UK). His research focuses on popular culture and he is the author (with Nick Gane) of *New Media: The Key Concepts*.

David M. Berry is Senior Lecturer in Digital Media (Associate Professor in Media Studies) in the department of Political and Cultural Studies at Swansea University, UK. His books include the forthcoming *Critical Theory and the Digital* (2013), *The Philosophy of Software: Code and Mediation in the Digital Age* (2011), and *Copy, Rip, Burn: The Politics of Copyleft and Open Source* (2008). He is co-author of *Libre Culture* (2008), and editor of *Understanding Digital Humanities* (2012). His research covers a wide theoretical area including media, culture, political economy, media/medium theory, software studies, actor-network theory, the philosophy of technology, and the computational turn in arts, humanities, and social sciences.

Mercedes Bunz lives and writes in London. She is author of *The Silent Revolution: How Algorithms Changed Knowledge, Work, Public and Politics without Making too Much Noise* (in German, Suhrkamp 2012). Currently she directs a research team exploring the future of scientific publishing in the age of open access and hybrid publishing, at the Centre for Digital Culture at Leuphana University, Lüneburg (Germany).

Florencio Cabello received a PhD in Communication Science from the University of Málaga and is Professor of Technology and Audiovisual Communication at the Communication Sciences Faculty at the same university. His academic work focuses on free culture, commons, and the networked public sphere. His latest paper in English is 'Beyond WikiLeaks: The Icelandic Modern Media Initiative and the Creation of Free Speech

Havens' (*IJOC*, 2012). He also collaborates with the social and cultural center of citizen management La Casa Invisible of Málaga (lainvisible.net), where he coordinates the Area of Communication and Technologies of Ulex, the Free and Experimental University.

Paolo Cirio works as a media artist in various fields: net-art, public-art, video-art, software-art, and experimental fiction. He has won prestigious media art awards and his subversive works have been sustained by research grants and residencies. He has exhibited in international museums and institutions worldwide. As public speaker, he delivers lectures and workshops on tactics of media interventions.

Joan Donovan is an organizer with Occupy Los Angeles and a founding member of the InterOccupy international network of activists. She is completing her graduate studies in Sociology and Science Studies at the University of California San Diego. Her research tracks the technologies of social change used by contemporary social movements.

Louis Doulas is a writer and researcher based in New York. He is founder and lead editor of *Pool*, an online platform and publication critically investigating internet culture. Previously he was the New York Correspondent at *e-flux*, Editorial Fellow at Rhizome at the New Museum of Contemporary Art, and columnist at *DINCA*. See, www.louisdoulas.info.

Leighton Evans is a PhD candidate at Swansea University, studying the phenomenological effects on the experience of place that emerge from using location-based social networks. His research interests are social media, digital media, ethnography and webnography, phenomenology, continental philosophy, and location based services. In addition to being a student, Leighton Evans is a research assistant and has previously been a college lecturer and web designer for a major charity in his native Wales.

Marta G. Franco is a journalist and media activist, with a master's degree in Communication on the internet. She works for *Diagonal*, a grassroots newspaper based in Madrid, and participates in projects related to hacktivism, feminism and free culture. She investigates social networking within the Lorea collective and the 15M movement. Her main interest is the emergence and self-organization of collective intelligence in analog and digital public spaces.

Robert W. Gehl received a PhD in Cultural Studies from George Mason University in 2010. He is currently an assistant professor of new media in the Department of Communication at the University of Utah. His research draws on science and technology studies, software studies, and critical/cultural studies, and focuses on the intersections between technology, subjectivity, and practice. He is currently working on a book entitled *Reverse Engineering Social Media*. At Utah, he teaches courses in communication technology, composition in new media, and political economy of communication.

Seda Gürses is a researcher working on privacy in online social networks, requirements engineering, and privacy enhancing technologies at COSIC, Department of Electrical Engineering, in KU Leuven (Belgium). She is part of the SPION project in which an interdisciplinary team explores the challenges of understanding and addressing privacy problems and processes of responsibilization associated with online social networks. She further works with various arts initiatives on feminist critique of computer science, open source and free software development, as well as surveillance studies.

Alexandra Haché is a sociologist with a PhD in social economy, and a researcher on ICT for the public good. She has also worked on the impact of social computing and Web 2.0 on civil society's potential for self-organization and social innovation. Next to that she studied how social movements, and civil society at large, use and develop ICT, and in turn how they communicate about them. This orientation has been marked by her exploration of free software, free culture, and gender relations to ICT. Since 2004 she has been involved in the use and development of free software tools for social and political transformation within neighborhood communities, engaged research networks, immigrant teenagers, and women groups.

Harry Halpin is a World Wide Web Consortium (W3C/MIT) Team member, under the direction of Tim Berners-Lee, where he leads efforts in social standardization and cryptography. Dr. Halpin is also currently writing a book on the philosophy of the web under the direction of Bernard Stiegler due to the EC-funded PHILOWEB project at IRI. He completed his PhD at the University of Edinburgh under Andy Clark, available as the book *Social Semantics*. His work is aimed at evolving the web into a secure platform for free communication in order to enable collective intelligence.

Mariann Hardey is Lecturer in Marketing at the Durham University Business School. She specializes in social media and new forms of connectivity.

Yuk Hui is currently a postdoctoral researcher in the Centre for Digital Cultures at Leuphana Universität Lüneburg. Before, he was a research fellow at the Institut de Recherche et d'Innovation (IRI) du Centre Georges Pompidou, Paris. Hui holds a PhD in philosophy and an MA in Cultural Studies, both from Goldsmiths, University of London, and a bachelor degree in Computer Engineering from the University of Hong Kong. Hui has been working on different research projects exploring the possibilities of new media technologies on arts and social engagements with cultural and technical institutes such as Tate Gallery, and T-Labs Berlin. See, www.digitalmilieu.net/yuk.

Ippolita is an international collective for convivial research and writings. Its investigations and workshops deal with (reality) hacking, free software, philosophy, and anthropology of technologies. As a heteronomous identity Ippolita published *Open is not Free* (2005, IT), *The Dark Side of Google* (2007, IT-FR-ES-EN), and *In the Facebook Aquarium, The Resistible Rise of Anarcho-capitalism* (2012, IT-ES-FR). The Ippolita independent server provides access to copyleft works that explore cutting edge 'technologies of domination' and their social effects. Forthcoming project: rites and beliefs in tech everyday practices. See, www.ippolita.net / info@ippolita.net.

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Simona Lodi is an art critic and curator. Since 1993 she has been writing for the best magazines on contemporary art. She is a contributor of *LEA - Leonardo Electronic Almanac* and a blogger for *The Huffington Post Culture* (USA). She is interested in the relationship between art/technology and the impact that digital technology has had on the lives of creative people, curating shows, and writing articles and essays. Simona is the founder and art director of the Share Festival and Action Sharing. She has been online since 1994, and currently lives in Turin.

Geert Lovink is the founding director of the Institute of Network Cultures (est. 2004), which is part of his research professor ('lector' in Dutch) appointment at the Hogeschool van Amsterdam. He is also Professor of Media Theory at the European Graduate School, and Associate Professor of New Media at the University of Amsterdam. His latest book is *Networks Without a Cause* (Polity Press, 2012), which is also available in Italian and German.

Alessandro Ludovico is an artist, media critic, and editor-in-chief of *Neural* magazine since 1993. He has published and edited several books, and has lectured worldwide. He's one of the founders of Mag.Net (Electronic Cultural Publishers organization). He also served as an advisor for Documenta 12's Magazine Project. He has been a guest researcher at the Willem De Kooning Academy in Rotterdam, and he teaches at the Academy of Art in Carrara. He is one of the authors of the Hacking Monopolism trilogy of artworks (*Google Will Eat Itself*, *Amazon Noir*, *Face to Facebook*).

Tiziana Mancinelli is an activist and researcher based in London. She has been involved in feminist, anti-racist, migrant and sex workers' rights struggles both in Italy and in the UK. Back in Rome, she was involved with a Free Radio project and, in the UK, with the migrant sex worker rights project 'X:talk' (xtalkproject.net). She is currently a PhD candidate in Digital Humanities at the University of Reading.

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Miriam Rasch started working at the Institute of Network Cultures in June 2012. She holds an MA in Literary Studies and Philosophy. After graduating she worked as a (web)editor and programmer for the public lectures department at Utrecht University. She teaches philosophy and media theory at the Amsterdam University of Applied Sciences and writes book reviews and guest posts for different websites. Her personal blog can be found on www.miriamrasch.nl.

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Marc Stumpel is a new media researcher from Amsterdam. He holds an MA in New Media and Culture from the University of Amsterdam (2010). His main research interest is the antagonism within the political and economic dimensions of digital culture, especially in relation to social media. Being a privacy/user-control advocate, he is concerned with the development of alternative social networking spaces and techniques. He is involved in the Facebook Resistance project as a researcher. His Master's thesis, 'The Politics of Social Media' (2010), focused on control and resistance in relation to Facebook. In 2012 he co-produced the second Unlike Us event.

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Martin Warnke studied in Berlin and Hamburg, acquired his PhD in theoretical physics, and was head of the computing and media center at the University of Lüneburg for many years. In 2008 he became an associate professor for digital media/cultural computer science, and is currently the university's Director of the Institute for Culture and Aesthetics of Digital Media at the Faculty of Culture. He is also a visiting professor in Vienna, Klagenfurt, and Basel, and works in the fields of history, digital media, and the digital documentation of complex works of art.

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