Florian Cramer

> interview



In your text "Free Software as Collaborative Text" in the early 2000s you discuss many formal characteristics of Free Software including both the "generative" characteristics of code (producing new sense through the execution of described processes) and the "generative" characteristics of text (producing new sense through reading). Do you think that the relationship between Free Software and text has changed since then, or is it still the same? Does the distance between text and code increase as software becomes increasingly complex?

That paper had been written from two simultaneous perspectives; firstly of literary studies, which I taught back then at university, secondly of Internet culture. At that time, I was frustrated with electronic literary studies because of their narrow fixation on hypertext linking and multimedia. In comparison, I found coding and distributed, collaborative software development much more advanced and exciting writing technologies and cultures. Even more so when matched against literary theory notions of text as a system of interrelations, by Julia Kristeva, Jacques Derrida, Yuri Lotman and others. The term "net culture" had been, around the same time, somewhat monopolized by the activists and critics around the Nettime mailing list. Free Software/Open Source hadn't been on their radar as a culture back then. Yet Free Software/Open Source brought up the crucial issue of intellectual property - plus a creative solution, copyleft. Both points of my criticism are outdated now. Nevertheless, literary text theory still doesn't really reflect coding, and in the arts and humanities, well-meaning misunderstandings of Free Software/Open Source do abound. (On the latter subject, Aymeric Mansoux is currently writing his Ph.D. thesis.) Something else has become historical as well: the Free/Open Source software of the late 1990s and early 2000s was, on the average, more 'textual' or writerly. Graphical environments like KDE and Gnome were still in their infancy, Ubuntu and Android didn't exist vet. Ironically, text-based software like command line shells, tools like grep, editors like vi and Emacs, compilers and scripting

languages still remain the highest quality Free/Open Source software today. It also is the kind of Free/Open Source software whose development hasn't become corporate. When Open Source became a meme in the late 1990s. it had the utopian promise to bring avant-garde computing to the masses, producing software on the quality level of Emacs or the z shell for everyone. This was very similar to Theodor W. Adorno's early 20th century hope that in the future, kids would whistle twelve-tone music in the streets. Alan Sondheim wrote in 1999 that "Linux in shell mode is [...] film-theory '68 all over again, the parameters and articulation of the system visible, the artifice revealed, the imaginary laid out in palimpsest." But in overall user interface culture, the opposite happened. The gap between "writerly" (or programming-friendly) software and "readerly" (or consumer-oriented) software widened beyond belief with smart phone and tablet operating systems, Android included. This is, by the way, not a simple matter of text versus graphics, Writerly graphical software like Pure Data and Squeak didn't gain mainstream momentum either. Android ultimately stands for the end of the idea of a fully Open Source operating system as it's a corporately developed piece of software running proprietary applications - just like the Linux servers that drive the Internet and its proprietary web applications from Google to Facebook. Today, all these issues still matter but perhaps less so in the bigger picture of culture and computing. I am much more concerned about the overall sustainability of computing if we consider resources, energy, fabrication, infrastructure and last not least the geopolitics that make hardware, networks and so-called 'clouds' possible. Also, the tech industries - Google, Apple, Amazon and others - have become the new creative industries, with an even greater power imbalance between cultural producers and infrastructure owners than in the old creative industries of Time-Warner, Viacom, Bertelsmann and Disney, The visual arts had anticipated this development in the 1990s when curators became the oracle priests of the contemporary art system, Artists were abundant and disposable as semi-naive

producers of material to be "curated".

Correspondingly in the commercial media world, cultural production lost much of its exchange value. It is the free fuel that drives gadget sales and big data mining operations. In this new world, it is not important anymore which operating system or text editor you use. All the more in a time where it is not even normal anymore that users can see and move around the files stored on their own computing devices.

As you've pointed out in different texts, there's a tradition of using books to avoid censorship in various ways, for example in connection with banned programming code (such as the PGP or DeCCS algorithms), thanks to the Freedom of Expression, which covers books, Do you think that this opportunity will continue to be used in the future as proprietary software platforms are becoming more and more restrictive? No, because the media split between paper books (that broadly fall under freedom of speech) and electronic zeros and ones (that do less so) no longer exists. The book has never been a specific physical medium anyway, but to borrow from the early 20th century philosopher Ernst Cassirer - a symbolic form whose appearance has always been subject to change, from papyrus scrolls to paper codexes and now to e-books. Software has become the other precursor to e-books. Since the 1970s, the zeros and ones of computer software have been simultaneously copyrighted, patented, trademarked, considered trade secrets and wrapped in contractual user license agreements. E-books on Amazon's Kindle reader, for example, inherited all these qualities and gained remote deactivation on top of it. In the age of the Kindle, books are no longer freedom of speech tools. But print - from texts to non-electronic money and transportation tickets - may gain new importance because it's partly off the digital surveillance radar. For the opposite reason, most Arab spring theories about mainstream Internet social media as activist tools strike me as rubbish.

You've been an active part of the Neoism underground movement and close to the Mail Art movement as well. Both experimented with



truly collaborative and collective networked printed products in various forms, including printed magazines. Are you currently engaged with anything similar?

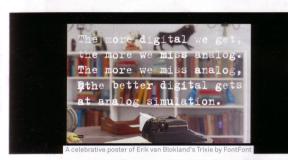
I have never been actively involved in Mail Art except for sporadic contacts with a couple of Mail Artists, When I first encountered Mail Art through my friend Graf Haufen in the second half of the 1980s, it seemed to have lessened into the equivalent of stamp collecting with a Dada/Fluxus visual aesthetic, But strong work was still made by individual networkers like Vittore Baroni and Blaster Al Ackerman. If you read the earliest issues of General Idea's FILE magazine, for example in the 2008 reprint edition, you get a sense of the counter-cultural excitement and explosive energy of early 1970s Mail Art that net.art relived in the 1990s. Both Mail Art and Neoism - and Science Fiction and punk subcultures, for that matter - didn't choose print for its intrinsic material quality, but as a cheap DIY multiplier. The same is true for other media used in those subcultures, like audio cassettes and Super 8 film. For these anti-copyright subcultures, it was just logical to embrace computer networks when they became accessible. There were Mail Art and Neoist dial-up bulletin boards even before the World Wide Web. Today, artists' zines, cassettes and analog films are booming again. While many of them bear strong outer similarities to their Fluxus, Mail Art, punk and Neoist precursors, they differ in their focus on the materiality of paper, tape and celluloid. The real heir to the kind of shared identities,

pranks and memes that Neoism and the Luther Blissett project experimented with is, in my opinion, the Anonymous movement. As truly collective subversive efforts. I find Anonymous. 4chan.org and the Encyclopedia Dramatica superior to Neoism and Luther Blissett. If you speculatively view these three as historical successors to each other, then they manifest a gradual detachment from twentieth century anti-art and experimental arts history. Neoism never understood itself as an art movement. but this history was still one of its major points of reference. In the Luther Blissett project, it had become more subdued as a crypto subtext underneath a wealth of popular culture references. The Anonymous movement, finally, is purely based on popular culture. The experimental arts person in me deplores that a little. But then, the Anonymous movement is every Neoist's wet dream having come true. - I see this development as exemplary, by the way, for a larger cultural tendency where activism and visual culture merge but the Western art tradition loses its influence almost completely. Anonymous and 4chan have their roots in Japanese popular culture, like so many other global cultural phenomena today. In 1964, Henry Flynt coined the slogan "Demolish Serious Culture" for a picket against a Stockhausen concert, which Neoists revived in the 1980s and 1990s. Nowadays, this phrase no longer voices a demand but an accomplished fact.

One of the main branches of your research is the calculated generation of texts over the last few centuries through algorithmic procedures (from the purely mathematical and combinatory to the sophisticated levels enabled by programming code). Today various artists have started to use this approach in combination with print-on-demand, generating "unique" art books that can be purchased (in a way creatively complying with the art market diktat of having a single "original"). Do think that there's any recognizable historical trajectory in this practice?

My own research pretty much ended with my German-language book "Exe[cut]up.able Statements" (parts of which will appear in the English-language book "Anti-Media"). So I might no longer be the right person to ask. It has become difficult to analyze this subject on a large scale now that almost everything we read online has been algorithmically generated on-the-fly by content management systems. But the print-on-demand designs you mention fit my observation that the poetic device of generative text is being used for the most extremely opposite ends. In Renaissance speculative philosophy and poetics, and in the many humorist phrase generators you find in the Internet, it is a means of grammaticalsemantic expansion and multiplication: to create abundant writing and knowledge from limited source instructions. Your examples, on the other hand, represent an economics of reduction and artificial scarcity: to massproduce unique items. Algorithmic generation then becomes a simulation of craftsmanship and ends up becoming, somewhat counterintuitively, "post-digital",

Thinking of the incredible amount of valuable knowledge online and its intrinsic volatility (beyond multiple remote backups), would it make sense to think about a utopian collaborative project aimed at "printing" (as some older generation people are known to do when they find something interesting online) some of the most precious content currently available online? The short-livedness of electronically published information frustrates a lot of people and is an important factor in the current post-digital and analog revival trend. However, all media - i.e. all physical storage and transmission of information - are analog anyway. It's just that most digital information is stored on such volatile, short-lived and physically unreliable devices as the rotating magnetic platters of hard disks. Among German-language Internet activists including the Chaos Computer Club and the Pirate Party, "Internet hardcopiers" ("Internetausdrucker") is a common slur for policymakers who don't get the digital age. Why not reappropriate it as a positive concept? Roman stone carving and South East Asian woodblock printing provide good historical role models. In any case, I support resistance against the current culture of short-lived,



throwaway gadgets, apps and services that take user-generated creative work and cultural archives ransom and kill them off when they're phased out or go out of business.

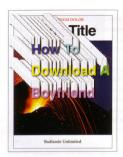
Recently there has been revival of books as (re)appropriated art forms, produced through various digital means, something perhaps also driven by a more general fascination with "analog" media as an endangered species. Considering the tradition of appropriation of other personal media (typewriters, photocopiers, personal computers), how long do you think it will take until we have definitively appropriated e-book production? This already happening with new art publishers like Badlands Unlimited and their artist ebooks "How to Download a Boyfriend" and "HELL TREE", Unfortunately, they are particularly bad examples for 'new media' throwaway culture since they are proprietary to Apple's iBooks application on the iPad. encrypted with Digital Rights Management (DRM) and therefore likely to end up as unreadable digital junk in only a couple of years. One could see it as the sad history of 1990s hyperfiction and multimedia e-books repeating itself, just that the downloadable app has replaced the 'interactive' CD-ROM. The project artistsebooks.org is older than Badlands Unlimited, and more ambitious, since it only publishes e-books in the no-frills open standard epub format under Creative Commons Licenses. However, the site hasn't been updated since 2010. To answer your

question a bit sarcastically: Artists' e-books may take off as a genre as soon as the hardware will have become retro. E-paper readers are now an endangered species through the iPad and other tablets. They may disappear from the market soon. But since the materiality of e-paper is absolutely gorgeous, with their matte, recycling paper-like displays and black-outs in between turning pages, they're just waiting to be used for 'cool' artists books and zines.

You've also been following the digital dynamics of typography (you have even developed a dot matrix typeface for the X Window system X11. "px(2000"). After the typographic dynamic adaptation to screens and the loss of "page" constraints in e-book file formats, do you think that typography still has a leading role in mediating (digitally) written information for our visual perception? And how might it evolve? For typographers and graphic designers, the shift towards electronic publishing is a nightmare because of the chaotic multitude of display technologies, resolutions and aspect ratios of the screens on which one and the same document must be rendered. On top of that, the designer's visual control over what people eventually get to see is drastically limited. But I don't see an alternative to alphabetic (or alphanumeric) writing with new information technology. In fact, letters have become more important than ever before. You could have been an illiterate using the electronic mass media of the 20th century: film

and video, television, radio, telephone, record players, cameras etc. Nowadays, you can't even access a YouTube video without the alphabetic literacy needed for filling in the search field. That makes typography responsible for the visual communication of the most basic organizational information layer. Typography is a perfect example of 'remediation'. It was invented with the printing press but historically derived from calligraphy and stone carving. We can still see this in italic and non-Western types and in the serifs of classicist typefaces. Electronic typesetting started with vector renderings of typefaces that were originally hand-drawn and cast in lead. The vector renderings are much slicker than those originals. We therefore can't really speak of a computer Helvetica as Max Miedinger's 1957 Helyetica typeface, It's like the difference between Nam June Paik's "Zen for Film" - a looping empty film strip that gradually acquires dust and scratches - running on a film projector versus running from a DVD. Erik van Blokland's "Trixie" from 1991, a digital emulation of a mechanical typewriter font, was perhaps the first post-digital font. Open Source Typography's 2011 "Univers Else". based on the IBM composer typeface that George Maciunas used for all Fluxus publications, goes even farther in its ambition to not simply be a retro remediation but, to quote the designers, "a first attempt to escape the post '80s era of geometrical purity that is so typical of Postscript vector based font drawing". In between all these constraints and desires - unpredictable screen resolutions and sizes, diverse display technologies from color LCDs to black-and-white e-paper, ennui with geometric sterility – a new typography is sorely needed for the 21st century. I have, however, no doubts about typography's crucial role in communicating written information for visual perception. As such, typography simply is a parameter, just as sound design is a parameter of audio production.

In your research have you found any clever conceptual uses of digital technology in recently printed fanzine production? Not many. One that immediately comes into my



mind is Dexter Sinister's use of the venerable Free Software/Open Source instruction-codebased TeX typesetting system, and generative Metafont typography module, for its 2006 "Serving Library" of freely downloadable PDF books. Others include the hybrid analog-digital publishing projects of the Dutch graphic designer and artist Annette Knol at Kotti-Shop in Berlin which fuse Internet community-style publishing, DIY risograph printmaking, drawing and public space, printeretto.net. I have also been intrigued by the movement of zine drawing parties which I first encountered - and documented on Super 8 - in the United States. Not that these events involved any use of digital technology. But hack lab-style open participation and collective production was not something that I had ever witnessed in the individualist zine making culture of the 1980s and 1990s. Clearly, this here was a translation of Internet-style Open Source collaboration into a strictly non-electronic realm, as a tangible DIY form of social networking off the big data radar.

Do you think that e-books should incorporate dynamic elements, making their content change or expand and creating a closer relationship between the author and the reader, moving beyond the current plethora of tools aimed at analyzing or annotating text? This has been the ever-returning question for "interactive media" since the early 1990s.

First, there are issues of complexity —

including issues of technical compatibility.

reliability and longevity – that have haunted all

"interactive media" to date and made the concept only succeed for games, which are mostly quick-sale, short-lived products with a business model similar to bestseller books and blockbuster movies. Secondly, we're stuck with a false identification of machine feedback and social interaction that has haunted us since 1940s cybernetics and its behavioral mechanism. But an even more simple question is: if web sites are working tools for social communication and games are working tools for narratives with programmed interaction. why reinvent the wheel and make e-books web sites or games? Or, in more reactionary phrasing: why pollute yet another medium with vet another layer of social spam and gamification junk? If we look at the electronic publishing projects that have proven their value and usefulness, their success is founded on the most simple and universal file formats: plain text files on the various Gutenberg projects and textfiles.com, PDFs, mp3s and mp4s on archive.org, UbuWeb, aaaaarg.org and Karagarga, for example, The dynamic you mention doesn't need to be encoded into media formats or interaction designs, but more often lies in the informal social dynamic - the samizdat between the people who use and share these files.

Do you think there's room to formulate a broader "Post-Digital Aesthetics", extending the "Post-Digital Print" concept? And how would this relate to the so-called "New Aesthetic"? My impression has been, so far, that nobody outside the small field of new media art curators and experts has ever heard of "the new aesthetic". Apparently, the term has been coined by a graphic designer who had been discovering the last fifteen years of media art and media design for himself. The reason why the new media field jumped on it is, I guess, the much broader meaning and importance implied by "the new aesthetic" in comparison to the dated ghetto terms "new media" and "media art". But if only the ghetto knows of "the new aesthetic", then the term defeats its purpose and sounds rather megalomaniac and ridiculous. Without healthy exposure to my students - and to the artist-run space and cultural venue WORM in Rotterdam for which I

have begun to work part-time - I would have never have given the term "post-digital" a second thought. I first heard of it from my former student Marc 'One Man Nation' Chia and dismissed it too quickly because I wasn't (and still am not) convinced by Kim Cascone's initial definition. Next to Marc, a number of other former Piet Zwart Institute students need to be credited: Dennis de Bel. Stéphanie Vilayphiou and Alexandre Leray, Terje Øverås, Annie Wu and Lieven van Speybroeck. Most of them didn't call their work "post-digital" but gave the concept practical significance. For example, through hybrid print/electronic works and repurposing of 'old media' such as mechanical typewriters, tape reel recorders and record players with an artistic sensibility influenced among others by The Pirate Bay. UbuWeb and Dexter Sinister, I would therefore characterize post-digital aesthetics as an aesthetics in which "digital" is (a) no longer associated with a break with previous culture although the change it brought - such as unrestrained replicability of information - is embraced, (b) seen as having no value of its own, including no particular association with technological or social progress, (c) used as a convenience but typically associated with aesthetic shortcomings, (d) avoided in the perceivable work but implicitly present as a tool of its creation or as a tacit or negative reference; or it is hybridized with pre-digital media technology. Instead of such digital or 'new media' core values as computability, reproducibility and the "global village", postdigital aesthetics emphasizes tangibility, do-it-yourself and urban locality. Or, in semiotic terminology: digital aesthetics privileges symbols (abstract codes), postdigital aesthetics tends to privilege indexicality (traces and contextual signs). - This is just a tentative first taxonomy. This subject is my current obsession. I would love to connect with more peers in this field!

Florian Cramer currently is director of Creating 010 at Hogsechool Rotterdam, an applied research centre for the creative industries in the Rotterdam region. He also serves as a board member of WORM, the Rotterdambased Institute of Avantgardistic Recreation.