

Introducing Media, Knowledge and the Network University

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In the early 1970s, Ivan Illich launched a radical critique of education in modern economies. While abandoning the quest for universal education, he saw computers and their networks as a means for supporting learning in a “deschooled milieu.” In *Deschooling Society*, he wrote:

The current search for new educational *funnels* must be reversed into the search for their institutional inverse: educational *webs* which heighten the opportunity for each one to transform each moment of his living into one of learning, sharing, and caring. We hope to contribute concepts needed by those who conduct such counterfoil research on education--and also to those who seek alternatives to other established service industries (XIX-XX).

By the end of the 1970s, Jean-François Lyotard, in *The Postmodern Condition: A Report on Knowledge*, commented that “...it is common knowledge that the miniaturization and commercialization of machines is already changing the way learning is acquired, classified, made available, and exploited” (4).

This special issue of the *Canadian Journal of Media Studies* crosses the border between the university and the media. Thanks to a networked computer and the Internet, it is natural and easy to recollect Illich’s notion of “counterfoil research on education” with a few keystrokes from *Wikipedia*. Here we are immediately confronted by the historical evolution of technics and memory. On the one hand, for Bernard Stiegler, the “hypomnesic milieus of digital networks” marks a rupture in which memory becomes transindividual (84). On the other hand, as Umberto Eco has reminded us, the WWW has become the *Funes el memorioso*, the brain of a character of Jorge Luis Borges short story who remembers everything because he lacked the filter of collective memory, history and tradition. He suggests that the academy in the age of the Internet should be a place to invent a “new art of decimation” (31).

In media studies, criticality has customarily been enacted by taking an anti-technological determinist stance and debunking the cultural hyperbole that accompanies every ‘new’ medium. With the rapid growth of ‘social media’, there seems to have been exponential growth and acceleration in technological hype. The challenge, however, is not only to overcome historical myopia by discerning continuities in media history but also to discern discontinuity. To be more specific about computational media, we need to recognize how the computer “marks a certain dissociation of media from technics” (Hansen 178). As Mark Hansen summarizes, with due respect to McLuhan, the content that is transmitted--whether coded as ‘research’ or ‘teaching’--prevents us from seeing that we are in the midst of a “mediatic regime change” (Hansen 180). The digital turn ushers in a new phase in the academic ecology of mind, where the meaning of “interpretation” and “meaning” changes because subconscious and nonconscious processes, like the information processing occurring inside our computers, are “acts of interpretation and meaning” (Hayles 151).

In the network university, we are spending more and more of our academic time at the human-machine interface. The graphical user interface has made the Internet and computer-mediated communication user-friendly but this development put the code that translates numbers into graphical images out of the end users' sight. The metaphor of information "flow" obscures the materiality of what we do not control, which is the technology of protocol. Protocol, as Alexander Galloway and Eugene Thacker maintain, is "less about power (confinement, discipline, normativity), and more about control (modulation, distribution, flexibility)" (31). Despite the fact that no micro-level node would exist or operate without a macro-level protological network, Web 2.0 user-generated content has reinforced the multifarious notion of user agency within participatory culture (van Dijck 42). Ultimate control by end users, we are told by those on the vanguard of the emergent concept of academic cloud computing in the U.S., is coming. The U.S. 'ivory tower' defined by history, economy and technology is becoming enshrouded by a virtualized, distributed "network cloud" (Katz xv). Alternatively, in the Canadian context, we can see how the university may become submerged in data fog. Consider the workload that is carried by e-mail. At York University, University Information Technology (UIT) is considering revisiting the role of internally-supported e-mail. The more faculty use it for information exchange and as a network accessible document depository, the more the e-mail system becomes debilitated. A Google search engine appliance has already been installed on the University's website, so the day may come when UIT may decide to adopt Google Apps for Higher Education.

In fact, such a managerial decision has already been taken, putting one Canadian public university against itself. In 2006, Lakehead University decided to outsource its traditional email system and migrated 38,000 users to Google. This was the IT "solution" to server overcapacity, non-delivery and slow response time. According to Google's "case study," efficiency and cost-savings allowed the university to "apply these resources to other educational needs." The Lakehead University Faculty Association argued that outsourcing the e-mail system violated their privacy rights and academic freedom. In June 2009, a Canadian labour arbitrator ruled against the faculty without any requirement that Google provide encryption to protect Canadian academics from the U.S. Patriot Act. By the end of the year, the administration decided to abandon its collective agreement by locking out and not paying faculty from December 21 to 24. Thus, the same organizational rationality--what has been described as the "new managerialism"--underpins the decision to adopt Google Gmail and to close the university.

But there is something more at stake in this local wireless academic scene: digital sovereignty. The privacy commissioner of Ontario, who advocates that privacy be embedded in networks as the default option, urged Google to make encryption the "opt out" option. In January 2010, Google disclosed that the company had been the victim of cyberattacks and intellectual property theft. The target was Gmail accounts of Chinese human rights activists. Hours later, Google decided to announce that it was making HTTP secure the default option. According to the Gmail engineering director, the company had been researching the latency/security tradeoff for some months before deciding to announce the change. However, HTTPS only encrypts the communications in transit between Google's servers and a user's computer, not the e-mail sent between sender and receiver. Moreover, under the U.S. Patriot Act, agents of the U.S. government engaged in cybersurveillance can access dialing, routing, and signaling information.

Unlike a phone call, however, the technical properties of Internet “packets” makes it difficult to separate routing information from content. U.S. law enforcement requesting “routing information” would receive the entire e-mail packet and would thereby be entrusted to look at the address and delete the content. From this global technological angle, then, the price of the Lakehead University administration’s cost-saving step was the faculty’s privacy, which underpins their academic freedom.

Describing this scene, and juxtaposing technological decisions and academic labour relations, should not imply any return to technological determinism. As Franco “Bifo” Berardi comments, “the role attributed to intellectuals by the Enlightenment was to establish and guarantee—by the exercise of rationality—the respect for human rights, equality and the universality of law” (30). This tradition is put at risk when professors do not know where their e-mail is stored and how it is cared for. An IT service cloud may facilitate the separation of applications and data from the enclosed ‘click and mortar’ university milieu and its trusted, secure connections. This scene captures a conflicted academic situation in which applications have become more necessary and even tenured faculty are at risk of becoming contingent. What it may portend is the coming of the Canadian public university 2.0. as a Post-Fordist entropic conflux of tension and conflict.

The massification and informationalization of the university has transformed not only the content of teaching and research but also disciplinary processes of knowledge production and the technological form of academic life and culture. The integration and normalization of ICT's raises many questions about the public university, immaterial labour, scholarly communication and collaboration, and academic technoculture. In 1957, Marshall McLuhan invited us to reconsider the education process by announcing that, with the advent of television, the “classroom without walls” had arrived (1). Today, we are working in the university without walls. In “Universities, Wet, Hard, and Harder,” Friedrich Kittler reviewed 800 years of university-based media history to observe that, thanks to the computer, “universities have finally succeeded in forming once again a complete media system” (249). There is a layer of computational media and their networks that is not transparent or even perceptible. This is the hidden dimension of academic technoculture in which faculty are neither authors nor owners. In a strange sense, all faculties have become adjuncts to their university-based media system, which is both open and closed to the media environment outside the university. What Gary Hall has written about the relevance of digital texts and open-access archiving to the situation of cultural studies is also applicable to media studies: “What is new (and what is historically specific to this moment of time, is the extent to which new media technology makes it possible to multiply, to a perhaps unprecedented extent, the permeability of this border, this frontier control, and thus bring the problem of what, in this case, can and cannot be legitimately included in cultural studies *as cultural studies* to attention and thematize it” (77).

After the digital turn, the “network university” implies a polydimensional pluriversity. It is a tool for rethinking the university to come. The habit of thinking of the actual and the virtual in terms of off and online must be resisted. As Isabelle Stengers notes: “the stake here is ‘giving to the situation the power to make us think,’ knowing that this power is always a virtual one, that it has to be actualized. The relevant tools, tools for thinking, are then the ones that address and actualize this power of the situation, that make it a matter of particular concern, that is make us

think...” (Ecology of Practices and Technology of Belonging). To put it another way, we need new tools for ‘counterfoil research’ on media and education.

This special issue has six articles that present an array of perspectives and topics. It includes a commentary by Frank Webster that reflects upon different historical ideas of the university, which have all been superseded by the postmodern university and the pursuit of useful knowledge. We conclude with Bob Hanke’s interview with Ian Angus, based on the publication of his book *Love the Questions: University Education and Enlightenment*. Their conversation suggests that the public university needs to be defended and redefined for new times.

We begin with Bill Cope and Mary Kalantzis’s *The Role of the Internet in Changing Knowledge Ecologies*, which is reprinted from a Spanish-language journal. In the new age of “digital incunabula,” they suggest how the emergence of digital text retains the features of written text in some ways while destabilizing the print-based university knowledge system in other ways. In tandem with their colleague Michael Peters, they propose an agenda of key questions about “academic knowledge ecologies” that need to be addressed in order to realize the technological affordances of the Internet. Norman Friesen and Darryl Cressman introduce Friedrich Kittler and enhance his contribution to thinking of the university as a media system by offering a parallel account of the history of university pedagogy. They fill in the pedagogical aspects of discourse networks 1800/1900. Precursors of digital feedback loops between students installed in digital networks and their performance can be found in Ebbinghaus’s “learning curves” and Thorndike’s automated “curves of practice.” Thus, 20th century educational psychology, modeled upon the natural sciences, develops “laws of learning” based on conditions of mediation. In the process, education becomes not only instrumental but also “machinic or mechanical.”

Two articles revisit Jean Francois Lyotard’s thought in relation to how knowledge is regarded as legitimate. Maria José M. Ferreira proceeds by looking at how Canadian educational technology policies have mandated greater use of computer technologies and led to technological uniformity which homogenizes scholarship practices. Second, drawing upon interviews, she finds that academics perceive a lack of agency over policies and initiatives, and are concerned about the clericalization of their profession. When it comes to the production of knowledge, professors see new technologies as more appropriate for transmission than for creative knowledge production. She concludes that the academic will to conventional knowledge production remains strong and that academic culture has not lost to technology its legitimating foundation. Nicholas Knouf augments the political economy of the university by focusing on the “libidinal university.” The discourse of continual “crisis” has transformed the university into a matter of concern, but Knouf is worried about what is left out of critical accounts, namely, our own investment in working to maintain, reform or revolutionize the university. He highlights how--well before May 1968-- Lyotard identified the positivity of the cultural desire to exceed the structure of the university. Embracing such desire, however, means embracing impurity. Drawing upon Deleuze, he advocates a pedagogy of impurities that would direct our energies towards noncapitalist social relationships. In the final analysis, Knouf comes to a position that would both leave the institution intact and propagate processes that redefine the conditions of possibility. Mia Quint-Rapoport presents a case study of open-source software developers who worked on the development of the Open Journals System, the Canadian platform for open access journals

world-wide. This project represents digital labour and social cooperation that crosses the boundary between the public university and the open-source movement. What emerges from her situational analysis is a portrait of the resistance, identity and subjectivity of these media workers. Their involvement and code production are a form of ‘counterfoil’ knowledge work. Finally, Dan Knox examines online learning environments (OLEs) both theoretically and empirically by focusing on the relationship between surveillance practices and organizational trust. He surveys the conceptual terrain of surveillance marked out by panopticism and its inverse—the synopticon. The dashboards of OLEs are the interface of a university-based “surveillant assemblage” that have serious, unintended effects. Surveillance in general signals distrust but dialogical pedagogy requires monitoring of performance and feedback. By turning to organizational theory, Knox finds pathways for building and maintaining trust in OLEs. Finally, he develops a model for predicting how trust effects, strength of surveillance, and individual levels of trust may interact. His contribution reveals how we could “surveil surveillance” in higher education.

Works Cited

- Berardi, Franco. *The Soul at Work: From Alienation to Autonomy*. Los Angeles, CA: Semiotext(e), 2009.
- Carpenter, Edmund Snow, and Marshall McLuhan. *Explorations in Communication: An Anthology*. Boston: Beacon Press, 1960.
- Eco, Umberto. "The University's Role in a Media Universe." *Universities and the Media: A Partnership in Institutional Autonomy?* 17th September 2004, Eds. Umberto Eco, et al. <http://www.magna-charta.org/pdf/papers_media.pdf>.
- Galloway, Alexander R., and Eugene Thacker. *The Exploit: A Theory of Networks*. Minneapolis: University of Minnesota Press, 2007.
- Hall, Gary. *Digitize this Book! The Politics of New Media, Or Why we Need Open Access Now*. Minneapolis: University of Minnesota Press, 2008.
- Hansen, Mark B. N. "New Media." *Critical Terms for Media Studies*. Eds. W. J. T. Mitchell and Mark B. N. Hansen. Chicago: University of Chicago Press, 2010. 172-185.
- Hayles, N. Katherine. "Cybernetics." *Critical Terms for Media Studies*. Eds. W. J. T. Mitchell and Mark B. N. Hansen. Chicago: University of Chicago Press, 2010. 145-156.
- Illich, Ivan. *Deschooling Society*. New York: Harper & Row, 1971.
- Katz, Richard N., ed. *The Tower and the Cloud*. Boulder, CO: Educause, 2008. <<http://www.educause.edu/thetowerandthecloud>>.
- Kittler, Friedrich. "Universities: Wet, Hard, Soft and Harder." *Critical Inquiry* 31.1 (2004): 244-55.
- Lyotard, Jean-Francois. *The Postmodern Condition: A Report on Knowledge*. Trans. Geoff Bennington and Brian Massumi. Minneapolis: University of Minnesota Press, 1984.
- Stengers, Isabelle. "Ecology of Practices and Technology of Belonging." 2005. <<http://www.imbroglia.be/site/spip.php?article43>>.
- Stiegler, Bernard. "Memory." *Critical Terms for Media Studies*. Eds. W. J. T. Mitchell and Mark B. N. Hansen. Chicago: University of Chicago Press, 2010. 64-87.
- van Dijck, José. "Users Like You? Theorizing Agency in User-Generated Content." *Media, Culture & Society* 31.1 (2009): 41-58.