The Network University in Transition

MIT 7 Conference Paper, May 14, 2011

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In the March 2011 issue of *New Media & Society*, Daniel Kreiss, Megan Finn and Fred Turner (2010) scrutinize the new "utopian orthodoxy" and "peer production consensus" around digital technologies in a 'Web 2.0 world.' New media technologies in general and peer production in particular, they claim, have been hailed as offering a mass exodus out of corporate mass media, consumer culture, and industrial bureaucracy into peer-to-peer file sharing networks, participatory culture, and organization without organization. Among other criticisms, they highlight what I believe is a critical blindspot – the institution of the university which produces a significant number of the producers of peer-to-peer production.

The university is also producing graduates who have done dissertations on media change, learning and education. Here I would like to single out Russell Francis, a graduate of Green College, Oxford University and author of *The Decentering of the Traditional University: The Future of (Self) Education in Virtually Figured Worlds.* According to his academic website, students are "breaking away from the top-down hierarchical structures of the traditional university and educating themselves in virtually figured worlds that transcend institutional and geographical boundaries." With an emphasis on agency and use, he posits that web-based participatory culture is subverting and destabilizing a top-down cultural industry model of education that has evolved around the medium of the book.

This is a big claim. Students "breaking away" from spaces of confinement sounds fun and liberating. It also raises some questions. What about student who are 'breaking away' from classes to do paid work within or outside the university? For many student-workers, paid work is has become the biggest factor affecting their academic performance. North of the border, in the province of Ontario, instead of getting banks out of the student loan business, the provincial government has developed a mobile app that allows students to track their loan application and debt accumulation. What about the students who have been occupying campus buildings in order protest government austerity measures? Teaching and learning at every university have been impacted by information and communication, but we tend to overlook the ontological space of being a student and what going into debt teaches students. The flipside of fun and games is surviving, panic and attrition.

What also strikes me about Francis's thesis is a sense of deja-vu. In the early 1960s, Marshall McLuhan undertook some comparative educational media experiments that demonstrated that TV and radio performed better than a lecture and print media. In the last chapter of *Understanding Media*, he was also aware that schooling was about to be invaded by automation. For McLuhan, automation would facilitate speed up and synchronization and give rise to an "organic unity" that would end the mechanical era's division of subjects. Computers, he argued, extend industrialization beyond commodity industries, white-collar jobs and management, and engineering and communication into education. "Automation," he concludes, "brings in real 'mass production,' not in terms of size, but of instant inclusive embrace" (1964: 303). With this shift in the mode of academic knowledge production, the "consumer becomes producer in an automation circuit, quite as much as the reader of the mosaic telegraph press makes his own news, or just *is* his own news (1964: 301). Today students come to universities

and colleges as places of studious leisure with small tech and all the baggage they have acquired through social media and network culture. On Facebook, students and their friends are their own news. As new media research has shown, cell phones extend their mobile privatization. Users use Ipods to produce their own personal space and soundtracks in between home, work and school.

In the contemporary university, digital media and their networks have become necessary to the everyday functioning, scholarly communication, circuits of knowledge, and the faculty's worldly engagement. It is, as Samuel Weber (2001) reminds us, important to keep the question of diversity of the university open. Even after standardization and informationalization, the campus is still what Philip Agre (2002) calls a metaplace, a "diverse assemblage of places." University based media and applications are a mix of dominant, residual and emergent technologies. The milieu of the university is both bounded in space-time and deterritorialized by assemblages of screens-users-applications, the logic of connectivity, and crossflows of information. As Weber cautions, the university we work in may not provide a justification for generalizing about *the* network university in transition. While various subterranean conditions have restructured the university, in my view, technics or the technical apparatus, which is socio-technical, is central to how the university has been unfolding and the place of the social sciences, humanities and the arts.

The role of ICTs in education has also been subject to a futurology of current and impending media change that will transform practices, institutions, and lives for the better. There is no doubt that the infrastructure for digital scholarship has grown, and IT has become more important to the faculty's faculty of thought and our capacity to communicate, interact, and cooperate. It is an axiom of technomaterialism that there is no scholarly thinking without tools.

From a digital humanities perspective, faculty now display what Alan Liu calls "cool" – an awareness of the information interface that subordinates transmission to "complex opacity" (2004: 183). In the "ethos of cool," we rarely ask how our tools use or shape us, how digital media and their networks are influencing universities as institutions, and how academic technoculture intersect with technologies of management. At my own university, for example, the last digital issue the faculty union took a stand on was in 1997 when it negotiated control over copyright and the right to decide whether the assignment of courses using the Internet is consistent with their pedagogic and academic judgement.

At the turn of the millennium, Samuel Weber described the university as becoming "more tenuous in the face of delocalizing effects of computerized and media technologies" (2001: 224). Of course, universities have also been caught up in neoliberal policies and the part they play in globalization. McCarthy, Pitton, Kim and Monje (2009) identify three neoliberal tendencies – virtualization, vocationalism and fiscalization – that have been historically incorporated within U.S. education. They see these trends as:

> ... deeply cultural in the sense that they set off particular configurations of interests, needs, desires, beliefs and system-wide behavioral practices in the life world of universities and schools, with respect to ethos and milieu and the organization of knowledge, the regulation of individual and group identities in these institutions, and the sorting and sifting of social and cultural capital (McCarthy, Pitton, Kim, Monje 2009: 47).

While these tendencies have also been remaking the Canadian public university system, to the point that 'Incorporated' shadows the name of every university, my focus is on the interior technical system or milieu of the university. What interests me is the technological enframing or medial condition of the university as such. For media studies, technology has a dual significance: for some scholars, they are objects of critical multidisciplinary study and they are implicated in

formation of the university's time/space. By examining the morphosis of the milieu, we may better understand how virtualization is not a simple dilution of the interior academic milieu. It can better understood as playing a key role in the transformation of "internal outside" that is the "unassimilated background" of our professions (Moten & Harney 2004).

I want to argue that the technical milieu exhibits tendencies and countertendencies within a metastable system. The countertendencies have become weaker and there are diminishing returns from overprovisoned and underutilized networks. Contrary to McLuhan's claim that speeded-up movement will make "specialism of space and subject disappear" and cybernation will result in "organic unity," new academic disciplines and sub-disciplines are proliferating. Fast time and short-termism prevail over rhythm and the long term. The university moves on but over time some faculty experience disconnection, disunity, disadjustment, decoupling of teaching and research, desolidarization, deprofessionalization. If faculty also means the capacity to do things, it is the social science and humanities faculty's agency and action that has been decentered by technoscience. The networked, massified "comprehensive" university is showing signs of increasing levels of entropy. In Ontario, policy experts have declared that entire public university sector is unsustainable.

The faculties of faculty have been extended but they face a double opacity – the opacity of the network and the opacity of the administration's control technologies. As science and technology studies would put it, our computer, the network and its appliances have been 'black boxed.' It is only by analytical hacking the personal computer that we can discern how this universal machine is wrapped in material metaphors to fit comfortably into a familiar socio-technical world. The work of computer icons, as Marian van den Boomen (2009) has argued, is to represent ontologized stable states while depresenting procedural complexity. By extension,

we could say that for most faculty members outside of the computer science departments and schools of information technology, the network vanishes from consciousness, until there is a network failure. Connectivity and ubquity are the result of technological design, network architecture, and IT strategy, decisions and "solutions." Over time, IT discourse has replaced conversations about the conflict between academic and market values.

Due to the affordances of TCP/IP, client-server, and peer-to-peer media, media theory, research, criticism and art are a decentralizing strata within digital academe. At the same time, distributed centralization works to subume individuals and assemblages within internal strategic research initiatives, one way communication, publicity and external grant competition molded to government policy and the so-called knowledge-based economy. From an intra-systems point of view, "strategic planning" is both a management technology and public relations for neorationality in a technoburecractic enterprise. At York, current forward planning foresees further drift in operation from local, autonomous, IT "silos" serving faculties and the disciplines they host to an "enterprise-wide" level. As the 2009 IT strategy report sums up: "The discussion around IT is becoming increasingly about managing the University, not just managing IT."

With this construction of the context in mind, I will now turn to the scene and conduct of pedagogy. The late 1990s debate between off versus online courses was followed by the ascendancy of a third-way "blended" learning model." With the routinization of e-mail and PowerPoint and the adoption WebCT, followed by Moodle, interface time supercedes face-to-face time outside of regularly scheduled classroom time. Professors have learned that producing digital content can be more labour-intensive than preparing lectures. Making a PowerPoint presentation with images, sounds and some custom animation takes time away from research. Blackboard's take-over of WebCT in 2006 was a source of internal electronic disturbance and

more work for faculty. UIT decided to adopt free, open-source Moodle while continuing to provide support for WebCT. This adoption decision triggered a migration from one platform to another with conversion issues. How long WebCT will continued to be supported given that Blackboard plans to phase out the brand and how long Moodle courses are stored on servers are unknown quantities.

There have been experiments with blended learning, audio podcasting and video streaming and annual Technology Enhanced Learning conferences where faculty members share experiences and 'best practices.' Teaching awards have been given to professors who have converged the oral tradition of storytelling with Media Site Live webcasting to stream audio and video to a window on a web browser. Prototypes for combining Moodle with Camtasia Studio 7 to capture lectures have just gone through their first trial run. Such experiments remain within the transmission model of pedagogy to give students greater control over the channel of instruction at their own interface on or off campus. One-time courses that use technology to recompose large lecture courses into smaller groups have also been carried out but scaling up this kind of cyberpedagogy would not be feasible. So the quest for e.learning that is relatively easy to use, cost-effective, minimally disruptive of "workflow procedure," and scaleable across the university is still on. While UIT works with the Center for the Support of Teaching, their instrumental and utilitarian approach rarely interfaces with scholars who are working on implementing digital media to reconfigure research *and* teaching in their disciplines.

Overall, the live diffusion of cyberpedagogy has become normal in large lecture courses. What is the new "normal"? Teaching remains shift work in the sense of still having a fixed schedule of classes to teach at a particular time and place. Professors still prepare and give lectures based on the art of eloquence and classroom atmosphere still matters. As Mark Nunes

writes in *Cyberspaces of Everyday Life*, the "network has restructured the classroom as a space of flows" (2006: 128). Beneath the rhetoric of "student centered learning," he argues that network structures reinforces the "conduit fallacy" communication, teaches an operational, point-and-click disposition, and a cultivates a casualized student identity. I would add a Kittlerian twist to his insightful analysis of technology and cyberspace in education. To face time, we must add screen time and interface time. Course management systems facilitate the manipulation of the time-axis through the posting of pre and post-lecture documents, resources and recordings.

This year, two of my four courses were large lecture courses. In my preface to the course wiki, I wrote:

> It is important that we should use digital media in our efforts to think media, politics and citizenship (or popular technologies and cultural practice) otherwise. To make it possible to begin experimenting along these lines, I have set up this wiki. This medium enables us to experiment with course ideas that are user-generated. So this wiki consists of material any student is free to edit, delete, creatively remix, reconstruct, and reinvent however they see fit.

In both of these courses, there were zero contributions. Is this because using this tool was not given any weight in grading? Is this because of the design of the tool? Perhaps the answer depends on the situation and the position of the observer. From the course director-as-observer standpoint, the wiki is a possible space for communication, sense-making, sharing and learning. From the student-observer standpoint, each other's wiki contributions are noise in the channel between themselves and content presented by the professor. Students are habituated to receiving an education and downloading digital content from the Internet before they arrive at university.

Over the last decade, the disjuncture between the classroom and the mediatized world has narrowed in some ways – turning on a computer, opening a browser, and displaying multimedia, especially You Tube, is now commonplace – and widened in other ways – laptops and 'smart'

phones enable students to turn the classroom into a space of distraction. Thus, one paradox of cyberpedagogy is that professors and students are more mobile and connected but students are spending less time studying. In *Lowering Higher Education: The Rise of Corporate Universities and the Fall of Liberal Education*, sociologist James Côté analyzed data from 12,000 students in the U.S. and Canada and found that study times have gone done and grades have gone up, climbing from a C to a B+/A over the past thirty years. He says that instead of studying, students have increased their time enjoying sports, beer, drinking and parties. I would say the line between studying, communicating and socializing has blurred beyond recognition, so that nonstudious leisure can occur anywhere anytime.

No discussion of pedagogical space would be complete without mentioning what space students are granted in the library. Of course, the library, once the center of the university, has been digitized and decentered. Against the decentralizing tendency of electronic networks, there is a counter-tendency towards relocalization. Discussion in the library community has shifted from the "information commons" to "learning commons" to "learning spaces." Library learning space is now defined as a "third place" where the mobile, hyper-individuated undergraduate student body can come to engage in "studious leisure" and know itself in between work space (classrooms and labs) and domestic environments (dormitories) as a "community."

Outside of the classroom and the library is the managerial role played by chief information officers and IT professionals. At York, the last IBM mainframe was turned off in 1995 and the era of Cisco Systems distributed computing began. In this second generation network, shared, and then switched, Ethernet became the new topology. In 1998, under a new Chief Information Officer, the techno-organizational pendulum swung from a completely decentralized IT support model to a more centralized, university wide IT management model

linking IT and applications architecture to the university's academic goals. This would be the beginning of the end for the college-level MacIntosh Apple-Talk network controlled by faculty. IT strategy and planning has entailed adapting to "external drivers" of change, rewiring the campus, and building infrastructure for anticipated future uses. The CIO and the IT Council wield power and influence over IT investment, adoption, and retirement decisions. Departments draw up annual computing plans but the faculty senate does not play any role in IT governance. The CIO is an upper-level management position and the administration runs the university. IT professionals have come to play an increasingly important role as technological intermediaries between the IT industry, vendors, consultants, and their "clients" inside the university.

In conclusion, cyberpedagogy could be a line of flight into lifelong self-education by any media necessary. The media and space of the university are potentializing but their potential is limited. In the digital context, pedagogical and curricular space have been rearranged and knowledge work has mutated. This rearrangement presupposes articulations between the technical system and the social system at both the organizational and pyschosomatic level. The network is metastable; it only appears to be an equilibrium that does not change in time. To escape from presentism and into an understanding of the ecological university, we must recognize that the network university may have reached a limit unless there are new inputs into the system. Users – formerly known as humans – are more susceptible to downtime than machines. Only users can experience stress, frustration, exhaustion and decreasing levels of libidinal energy. With web-based tools, resources and participatory culture, perhaps students will have more user agency to stretch the socio-technical boundaries of higher education. But a centrifugal tendency towards open education is offset by a centripetal countertendency that

decenters faculty agency, imposes and contains innovation, extracts surplus value from knowledge production, and reduces energy over time.

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