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Tanner Mirrlees

University of Ontario Institute of Technology, tanner.mirrlees@uoit.ca

Shahid Alvi

University of Ontario Institute of Technology, shahid.alvi@uoit.ca

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THE MOOC: RHETORIC, POLITICAL ECONOMY & VALUE OF TECH CITIZENSHIP

The MOOC: Rhetoric, Political Economy and the Value of Technological Citizenship

Tanner Mirrlees

Shahid Alvi

University of Ontario Institute of Technology

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Abstract

This paper offers a critical political-economy of the promise and disappointment of the for-profit Massive Open Online Courses (MOOC) in higher education. Our goal is to encourage awareness, dialogue, and reflexivity about the gap between the rhetoric and reality of the MOOC in higher education and to highlight and interrogate the persuasive and profit power interests served by “the rhetoric of the MOOC.” To this end, the first section outlines our critical approach and defines some key concepts: “the rhetoric of technology,” “the political-economy of edu-tech” and “the public sphere.” The second section highlights the MOOC’s rhetorical promises and real disappointments. The third section contextualizes the “rhetoric of the MOOC” with regard to the persuasive and profit power interests it serves, and then evaluates this rhetoric with regard to the norms and values of the public sphere. We argue this rhetoric is a promotional discourse that is a poor guide to public deliberation and decision making about the role of technology in higher education. In closing, we propose the ideal and practice “technological citizenship” to encourage policy-makers, administrators, professors and students to have more democratic dialogue about educational technology, so that they, not the rhetoric of educational technology and the industry that sells it, can design the future of higher education.

Keywords: massive open online course, higher education, rhetoric, technology, learning, political-economy, interdisciplinary

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Introduction: The Promise and Disappointment of Technology in Higher Education

Over the past decade, private stakeholders in the educational technology industry, public administrators in educational policy networks, and the public opinion-makers of news and PR firms have argued that digital technologies are changing the structure, role and conduct of higher education. For example, *The Economist's* (2008) New Media Consortium published a report entitled "The Future of Higher Education: How Technology Will Shape Learning." The report's Executive Summary declares that "technological innovation" may be "changing the very way that universities teach and students learn" (p. 4) because "technology is a disruptive innovation in higher education" that "has had—and will continue to have—a significant impact" (p. 4). The report continues: "online learning is gaining a firm foothold"; "corporate-academic partnerships will form an increasing part of the university experience"; technologies will have "a largely positive impact on campuses" despite "operational challenges"; and "higher education is responding to globalization" by "leveraging advanced technologies to put education within reach of many individuals around the world" (p. 4). At present, the world may be on the verge of another recession (Doward, Elliot, Adehali & Macalister, 2016), and yet the power of digital technologies to change higher education by lowering the cost of course delivery, increasing student access and improving quality continues to be debated (Bowen, 2015; DeMillo, 2015; Craig, 2015; Lucas, 2015; Shark, 2015).

As a glut of reports of a technologically-induced disruption and transformation of higher education move many educators to make a headlong dash toward this brave new world, Losh (2014), the director of the Culture, Art, and Technology program at the University of California and a prominent educational and technology policy researcher and consultant, provides a much more balanced, cautious and erudite assessment of technology in

higher education. Losh highlights a “multiplicity of experiments taking place” in higher education and “the many ways that teachers and learners might be struggling to articulate their respective roles” (p. ix). Losh says that higher education’s future is not pre-determined by new technologies, nor is it by technocratic administrators, because the current “mess” of “technologies, people, resources and networks work—and sometimes don’t work—together” (p. 3). Losh’s research is especially significant to our work as it highlights a widening gap between rhetoric about technology and reality, the persuasive claims made about the power of technologies to improve higher education and the many examples of hardware and software applications that “fail because they treat education as a product rather than a process” and “let students down because they promote values of consumerism and consumption rather than other ideologies—such as intellectual development and scholarly participation—that don’t fit with market models” (p. 8).

Losh’s consideration of the gap between rhetoric and reality, the promises made by the vendors of educational technologies and the disappointments of such wares once applied to actual educational settings, is compelling and indicative of an entrenched pattern in the modern history of higher education technologies. “For more than a century, educational technology ads have glistened with hope” says Cuban (2013). Indeed, each communications device considered “new” in its respective time—the typewriter, the motion picture projector, the radio, the TV set, and the computer—got re-configured as an educational technology, advertised as a means to improve how professors teach and students learn, and then applied to higher education (Cuban, 1986, 1993, 2001). Yet, few devices did what they were hyped and hoped to do. After being diffused and adopted, the new technology regularly fell short of the transformational effects advertised. Packaged promises were routinely disappointed by real world practices. Years later, though, a new device would emerge and then again get touted by vendors, policy-makers and educators as the next best thing to change higher education for

the better, and the dialectic of promise and disappointment would repeat itself (Cuban, 1986, 1993, 2001).

In this short paper, we contend that the for-profit “MOOC,” or the massive open online course, is the most recent example of this pattern of promise and disappointment in the history of educational technologies. A MOOC is “Massive” (because it can enroll hundreds, even hundreds of thousands of students, simultaneously); “Open” (because anyone with a computer, an Internet connection and digital literacy skills can take it); “Online” (because course materials—lectures, tests, assignments—are digitized, delivered, accessed and interacted within Web-based computer mediated environments); and, a “Course” (because it can be assessed for certificate or recognition) (Heller, 2013). The MOOC is not offered to students directly by universities and colleges, but rather, by privately owned companies operating platforms which intermediate between professors and students. The biggest two for-profit MOOC companies are Coursera and Udacity (*New York Times*, 2012). The MOOC educational experience is supposed to work like this: students go to a MOOC web platform (i.e., or <https://www.coursera.org/> or <https://www.udacity.com/>), browse through catalogues of course offerings, select and enroll in a course, and then work toward completing it. If students pass the course, they receive recognition, but usually not course credit toward their degree. This, however, is changing because universities in five countries—Australia (the Australian National University and the University of Queensland), the United States (Boston University), Canada (the University of British Columbia), Holland (Delft University of Technology), Switzerland (Swiss Federal Institute of Technology)—are piloting “a global credit transfer system that will allow students to use courses taken online to count towards their degrees” (Grove, 2016).

This paper offers a critical political-economy of the promise and disappointment of the for-profit MOOC in higher education. Our goal is to encourage awareness, dialogue, and

reflexivity about the gap between the rhetoric and reality of the MOOC in higher education and to highlight and interrogate the persuasive and profit power interests served by “the rhetoric of the MOOC.” To this end, the first section outlines our critical approach and defines some key concepts: “the rhetoric of technology,” “the political-economy of edu-tech” and “the public sphere.” The second section highlights the MOOC’s rhetorical promises and real disappointments. The third section contextualizes the “rhetoric of the MOOC” with regard to the persuasive and profit power interests it serves, and then evaluates this rhetoric with regard to the norms and values of the public sphere. We argue this rhetoric is a promotional discourse that is a poor guide to public deliberation and decision making about the role of technology in higher education. In closing, we propose the ideal and practice “technological citizenship” to encourage policy-makers, administrators, professors and students to have more democratic dialogue about educational technology, so that they, not the rhetoric of educational technology and the industry that sells it, can design the future of higher education.

A Critical Approach to the MOOC: Rhetoric, Political-Economy and the Public Sphere

Our paper’s critical study of the rhetoric of the MOOC is interdisciplinary and makes use of three concepts: “the rhetoric of technology,” “the political-economy of edu-tech” and “the public sphere.”

Historians of invention and innovation show that the need for new technology is not always apparent to most people, and that the process of turning technology into something that is perceived as socially acceptable, is, in significant ways, reliant upon a rhetorical communication process (Doheny-Farina, 1992; Nye, 2007; Selber, 2010). Scholars who study the nexus of technology and rhetoric tend to conceptualize technology as “rhetorical” in two ways. First, technology is a rhetorical subject, what Kenneth Burke (1966) might have referred to as a “terministic screen.” Likewise, Nye (2007) says that technology “express[es]

larger sequences of actions and ideas” and that “the meaning of a tool is inseparable from the stories that surround it” (p. 2). As a rhetorical subject, technology is designed with a procedural story about how to use it and what’s to be done with it; this story may get people to perceive the world and act in it using the technology in ways it prescribes. Second, technology is the object of rhetoric: some people write, talk, and communicate about technology to persuade others to perceive and use it in prescribed ways. The study of the rhetoric of technology is important because it centers on “how agency is reconfigured by the rhetorical strategies that attend the steps in inventing and disseminating a new technology” and opens up an “intellectual space to consider the possibilities for agency that our words and tools have constructed” (Lynch & Kinsella, 2013, p. 4). It is also important to study the rhetoric of technology because rhetoric does not always reflect the world of technology as it is, but tries to move people toward the kind of world that it wants to bring about. Rhetoric is a social force because “the rhetoric defining technology, and the representations of it, are key to how it is integrated into social life” (Sturken & Thomas, 2004, p. 8).

Building upon the above insights, we conceptualize the MOOC as a rhetorical subject and object. As a subject, the MOOC tells us a story about its role and impact in higher education and prescribes how higher education ought to be and be done. As an object, the MOOC is discursively constructed by persuasive claims about what it is doing or will do to higher education. In the former definition, the rhetoric is by design; in the latter, the rhetoric is constituted by texts that spread across a host of media goods, such as books, magazines, newspapers, radio and TV programmes, and promotional material like marketing copy, press release and ads, in print, electronic and digital forms. This combined rhetoric of the MOOC is a form of persuasive power that aims to have effects; it is subjectively embedded in the MOOC’s design, and it is objectively wielded in communicational battles over the future of higher education. The rhetoric of the MOOC is important to study because it intervenes in

current debates about the present and future of higher education, and thus acts within and upon society in the current conjuncture. The rhetoric of the MOOC is a means by which the MOOC and its champions may try to persuade others who are less invested in a MOOC-ified template for higher education to want what they want, to do as they say. This rhetoric aims to get people to integrate the MOOC into higher education and to think positively about what the MOOC is doing to it.

However, a study of the rhetoric of the MOOC would be incomplete if it failed to account for the real material interests and goals of the real world organizations served by it. Rhetoric is a form of persuasion that comes from somewhere and seeks to achieve something, most often, for the organizations that have an identifiable interest or stake of some kind in persuading the public to think and act as they want. What organizations might be served by the rhetoric of the MOOC?

The political-economy of communication approach is useful for answering this kind of question. In essence, this approach is the study of the economic and political power relations that shape the conditions and characteristics of the ownership, production, distribution, and exhibition of cultural and informational goods and services as commodities in society (Hardy, 2014; Mosco, 2009). Selwyn (2012, p. 29) recently proposed a political economy approach to educational technology (“edu-tech”), and we agree that this is very much needed in education studies. Selwyn says that in the discipline of education, the study of edu-tech is often part of a narrow, instrumentalist and technocratic field where scholars pay scant attention to material interests and tend to concentrate instead on the alleged use-values and benefits of the edu-tech industry’s latest product line. Exchange-values and social costs are often missing. Education scholars hypothesize about best technological practices, measure technology’s effectiveness and try to prove what technology works best in contexts of curriculum development, teaching and learning. Applied theoretical work on edu-tech’s

utility in higher education is important, but the scholars doing it infrequently engage with other fields, especially those that would provide them with tools for understanding and changing how edu-tech is shaped by capitalism, social problems of inequality and oppression, and ideology (Selwyn, 2012). Political economy is refreshing because it shows edu-tech to be part of an industry, the structure of the edu-tech market, the key companies and primary consumers, the interests and goals of these companies, and the goods and services they produce, distribute, market and sell as commodities. This approach highlights the capitalist forces and relations of edu-tech in society, how, for example, edu-tech companies produce, distribute and market educational technological products and services for the market (with the goal of private profit) instead of for social need using capital goods (technology) and human labour power (manual and mental skills). While edu-tech companies research and develop various edu-tech products and services and promote these as a means of solving problems in education to improve its quality, the political economy approach reminds us that the primary interest of these companies in capitalism is profit, and their main goal is to make it by selling to a large market: universities and colleges. In 2013, the global postsecondary edu-tech market was worth about \$43 billion and by 2019, this market is projected to rise to \$66 billion (Kim, 2015).

This political economy of edu-tech approach is useful to our study because it enables us to show the MOOC to be an integral part of 21st century capitalism. This helps us contextualize the rhetoric of the MOOC with regard to the capitalist logics of the organizations that own the MOOC content, as well as the MOOC digital distribution and exhibition platforms. Bluntly, this approach sheds light on how the rhetoric of the MOOC is a form of persuasive power in service to the profit power of the organizations that control the means to research and develop, design, produce, distribute, publicize and profit from the MOOC in the higher education market. It explains the rhetoric of the MOOC with regard to

the real interests and goals of the corporations pushing the “disruption” and “transformation” of higher education.

In addition to examining the political-economic underpinnings of the rhetoric of the MOOC, we are interested in whether or not this rhetoric helps or hinders democracy. We take Jürgen Habermas’s (1989) “public sphere” to be a compelling theorization of democracy within society, and in higher education. Essential to democracy, whether representative or deliberative, is a citizenry that is informed about and able to join with and meaningfully participate as members of interested publics in making the big decisions that shape their lives and communities (Dewey, 1966). Habermas conceptualized the public sphere as any space where private citizens come together to discuss and debate public matters with the goal of forming a consensus about how they should govern themselves. The public sphere encompassed physical places and spaces of communication, from coffee houses and parlours to the print and electronic media. In the 21st century, the public sphere is any place or virtual space in which citizens publicly impart and receive information and deliberate about matters of common importance (Dahlgren, 2005; Papacharissi, 2002). For a public sphere to exist and work as Habermas hoped, the following criteria must first be met: 1) deliberation about a topic of common importance; 2) freedom of speech from censorship; 3) equality of access to/inclusion in deliberation; 4) the expression of a diversity of points of view; and, 5) rational discourse. Ideally, the “public sphere” would support deliberative democracy as an informational feedback loop between the public and key decision-making organizations in society.

The public sphere is valuable to our study because it provides a normative theory of deliberative democracy that can be applied to evaluate decision-making and discourse regarding the role and impact of new technology in higher education, the MOOC in particular. Did the decision to roll out the MOOC in higher education abide by the norms and

values of a public sphere? Does the rhetoric of the MOOC reflect the criteria of the public sphere and support democratic decision-making, or does it thwart the possibility of such communicative action?

Now that we've outlined our critical approach and defined our concepts, the following sections highlight the MOOC's rhetorical promises and real world disappointments, contextualize the "rhetoric of the MOOC" with regard to the persuasive and profit power interests it serves, and evaluate this rhetoric with regard to the norms and values of the public sphere.

The MOOC: Promises and Disappointments

When Coursera and Udacity launched in 2012, they promulgated hopes and dreams for reinventing and reinvigorating higher education. 2012 was referred to by some as "The Year of the MOOC" (Pappano, 2012), and rhetorical claims about the power of the MOOC to radically transform higher education for the better abounded. Here is a small sample of some of these. In the 2012 TedTalk, "What We're Learning from Online Education," Daphne Koller, Coursera's co-owner, framed the MOOC as a force of nature: "The tsunami is coming whether we like it or not," she says. "You can be crushed or you can surf and it is better to surf" (cited in McKenna, 2012). Many journalists described the MOOC as changing everything all at once with headlines like "Instruction for Masses Knocks Down Campus Walls" (Lewin, 2012) and "Revolution Hits Higher Education" (Friedman, 2013). Silicon Valley business leaders like Microsoft Chairman Bill Gates perpetuated this fervor, opining that because of MOOCs, "we're on the beginning of something very profound" and that this is the "golden era" of education, thanks to MOOCs, which are becoming "a global phenomenon" (Grossman, 2013). The neoliberal economist Clay Christensen cast the MOOC as a "disruptive innovation" that established a new market in higher education, and by doing so, unsettled industry leaders. Indebted to the Schumpeterian notion of "creative destruction,"

Christensen rejoiced at the MOOC's possible overturning the long established institutions of higher education: "Fifteen years from now more than half of the universities will be in bankruptcy, including the state schools. In the end, I am excited to see that happen" (cited in Schubarth, 2013). John Hennessy, president of Stanford University, declared that the MOOC was "transformative to education" but "We don't really understand how yet" (cited in Konnikova, 2014). Joseph Aoun, Northeastern University's president, said "with the advent of the MOOCs, we're witnessing the end of higher education as we know it" (cited in Carlson & Blumenstyk, 2012). US President Barack Obama even trumpeted the MOOC's impact, saying it is a rising "tide of innovation . . . that drives down costs while preserving quality" (cited in Haggard 2013).

No more than two years following this rhetorical flurry, research had highlighted a salient gap between rhetoric and reality: the MOOC's promises were being disappointed in educational practice. The MOOC was not the fast-route to mass education, for most had low course completion rates (between 7%-14%); the MOOC was not a utopian global village for higher education because a digital divide between technological haves and have nots persisted; the MOOC was not educating or empowering the world's poorest because it mostly enrolled the already educated and wealthy; the MOOC was not very learner-centered or participatory, but resembling of what Freire (2001) called a "banking model of education," or TV broadcasting: content made in studios by professors and media teams is transmitted to student consumers; far from revolutionizing higher education, the MOOC had minor uptake by universities and colleges (a mere 14%); and to the chagrin of austerity governments and cash-strapped administrators, the MOOC was not fighting the so-called "cost disease" because its development and operational costs were so high (it costs about \$150,000 to \$250,000 per course) (Baggaley, 2014; Harvard Gazette, 2015; Haggard, 2013; Hollands & Tirthali, 2014; Konnikova, 2014; Mitchell, 2013; Schuman, 2013; Strauss, 2013; Yirka,

2014; Young, 2013). In sum, the MOOC did not seem poised to disrupt and transform higher education for the better. “[T]he previous widespread acceptance of MOOCs has been more myth than reality” (Baggaley, 2014) and a recent survey of over 2,800 academic leaders found that few “would now be willing to argue” that the MOOC is “the future of higher education” (Kolowich, 2015).

Clearly, the rhetoric of the MOOC has suffered a substantive setback in some quarters of higher education and the media. Yet, “MOOC Mania” might not be over and may even continue to have effects. Julia Stiglitz, director of business and market development for Coursera, a company that controls nearly half of the global MOOC market, avers. She says the “MOOC revolution is just beginning” (cited in Riddel 2015). In what follows, we identify and scrutinize three “rhetorical strategies” that may continue to place the so-called “MOOC revolution” before the public mind in the most positive light, and then relate these to the profit-interests of the MOOC industry.

The Rhetoric of the MOOC: Persuasive Power, Profit Power, and the Public Sphere

The first rhetorical strategy is “technological determinism,” or the idea that technology is an autonomous and primary agent of social change (Nye, 2007, p. 16; Quann-Hasse, 2013, p. 47; Smith, 1994). The claim that the MOOC is disrupting and transforming higher education makes it seem as though the MOOC has agency and willpower while people—university administrators, professors and students—are inconsequential. It puts the MOOC, not people, in the driver’s seat of educational change, and by abstracting the MOOC from social interests and goals, it makes the change it wants to effect seem unstoppable, even irresistible: the MOOC will ostensibly make courses as large as possible, open universities and colleges to any student that wants to get educated, digitize, automate and upload the courses to websites, eliminate face-to-face interaction, go global, marketize and generate revenue from education, and cut costs. Social historians of technology might focus on the

choice to push the MOOC in higher education, but technological determinism, by making technology seem to have a mind and intent, distracts from the human agents and interests behind appearances of technological change.

The second strategy is “technological optimism,” the idea that technology is an agent of progress moving all of us toward a future society that is better—more abundant, efficient, and convenient—than today (Quann-Hasse, 2013, p. 42; Street, 1992, p. 20). The claim that the MOOC is having or will have net positive effects in higher education is technological optimism to the extreme: the MOOC will supposedly increase the supply of access points to higher education at a lower cost, make it possible for more students to more easily access, enrol in and complete their college or university degree, accelerate administrative efficiencies by helping universities teach more students with fewer resources in shorter time frames, “improve” the quality of student learning, and so on. By associating the MOOC with these notions of “the good” and depicting it as an agent of progress that is moving higher education toward a better and brighter future, technological optimism makes any MOOC-less configuration of higher education seem regressive or backwards. Balanced thinkers might weigh the benefits and costs of the MOOC, but one-dimensional technological optimism short circuits judicious thought.

The third strategy is the “technological fix,” the notion that every social problem—inequality, oppression, autocracy, war, mass ignorance—has a technological fix or technical solution of some kind (Morozov, 2014; Nye, 2007, p. 142; Tenner 1997). From the perspective of MOOC-owners Daphne Koller and Sebastian Thrun, universities and colleges have big problems and are even in a “crisis.” The solution they sell is their MOOC companies (Exoo & Exoo, 2013). Indeed, the MOOC is rhetorically packaged as a technological fix to a number of higher education problems: for universities running on shoe string budgets due to years of cutbacks by neoliberal governments, the MOOC will save costs; for departments

with recruitment troubles, the MOOC will help build and publicize better brand images; for units with retention issues, MOOCs will engage and inspire students, especially the “digital natives” whom old-fashioned professors of the face-to-face (F2F) and brick-and-mortar (BAM) age supposedly just don’t understand. Yet, the problems of higher education (if they exist) are social, not purely technical, and they require social as opposed to purely technological solutions. As a technological fix, the MOOC obscures the substantive roots of social problems, and is an inappropriate band-aid on the symptoms of much deeper economic and political antagonisms.

Together, the above three strategies combine to put a positive spin on the role and impact of the MOOC in higher education. They try to persuade higher education’s administrators, professors and students that the MOOC is their future while working against those who might disagree. Furthermore, the persuasive power of this rhetoric of the MOOC is a boon to the profit-power of the organizations that that are major backers and beneficiaries of a MOOC-ified higher education.

Coursera and Udacity are not public interest mandated educational institutions, but private companies beholden to the whims of global venture capital. Udacity was seeded start-up money by Andressen Horowitz, Steve Blank and Charles River Ventures, and Coursera was financed by New Enterprises Associates (NEA) and Kleiner Perkins Caufield & Byers (KPCB). These MOOC firms are expected by their financiers to make them money with their money, and this means that they are subject to the dictates of capitalism and profit-maximization. “Some business models are becoming clear,” says Ng. “Some we are confident will work; others we are still experimenting with” (cited in Raths 2013). These models closely resemble those currently employed by media companies, old and new. In the mid-1990s, Viacom CEO Sumner Redstone coined “content is king,” a phrase which represents the view that ownership of copyrighted content is essential to profitability in the

entertainment industry. Content, course content especially, is also king for MOOC companies because this is what they use to attract their student-consumers. MOOC companies assert intellectual property rights over professor-produced content, use it to build their user-base, and may even charge for the use of it. Like a Walt Disney distribution company that makes money by charging TV networks and theatres for the right to screen its copyrighted films, MOOC companies may generate revenue by licensing course content to universities and colleges (Kolowich, 2012; Lewin, 2013). MOOC companies are also trying to generate revenue by selling virtual goods. While Facebook's online store sells virtual balloons, bottles of wine and cupcakes, MOOC companies sell certificates of course completion and "nanodegrees" to student-consumers (Lewin, 2013; Ryan, 2015). Another potential source of revenue for MOOC companies is data. Like the Big Data firms that monitor, mine and then assemble all of the content their users generate into data profiles, and monetize these, MOOC companies collect data about student-consumers and use it for their own business purposes, like selling it to HR headhunting agencies and possibly even to advertisers (Lewin 2013; Watters, 2013; Young, 2012).

While it is unclear which of these business models will come out on top—perhaps one or all of the above will in the future—it is clear that the leading MOOC companies are making money, and a lot of it. Coursera was making profit back in 2013 (Rivard, 2013). Udacity started turning a profit in 2015 (Konrad, 2015). Furthermore, the companies that own MOOCs are rapidly expanding their profit margins, university partners, course offerings and user base. In 2015, MOOC companies increased their revenue by selling courses and credentials to students; they partnered with over 500 universities; they offered at least 4,200 courses; and they doubled their user base by expanding beyond their initial market of North American universities and colleges into high schools and the global market (ICEP Monitor,

2015). The size of the MOOC market is now forecast to grow from \$1.83 billion in 2015 to \$8.5 billion by 2020 (PR Wire, 2015).

Given the above, the rhetoric of the MOOC can be argued to act as a kind of promotional discourse that supports the business interests of venture capitalists, MOOC companies and their university partners. Bluntly, the rhetoric is persuasive power in thrall to the profit power pushing the MOOC to disrupt and transform higher education, and its goal is to get the public to agree that the MOOC is changing higher education, is a benevolent agent of progress for higher education, and is the best solution to whatever problem higher education may have. That companies want to make money from the MOOC in a competitive educational-technology market is not surprising. And that to make money, such companies need to build a market of consumers—university administrators, professors and students—and get these consumers to think about their product in a positive way, is Business 101. This type of profit-serving and product selling rhetoric is not unusual in capitalism. But does it support the public sphere?

The rhetoric of the MOOC supports some of the norms and values of the public sphere, and stifles others. It centers on the role and impact of educational technology in higher education and this is a topic of common importance. Higher education is a common concern for all citizens, because citizens collectively pay for decisions (and their effects) related to higher education. Education is also something in common because it is shaped by society and shaping of it. The design of the institutions of higher education, the ways teaching and learning happen (or are intended to happen) and the technologies applied to education, are commonly significant. The rhetoric of the MOOC expresses the norm of freedom of speech in democratic states, but it does not reflect equality of public access to such speech or inclusion in it. North Americans did not wake up one morning in 2012 and spontaneously decide that the MOOC deserved its own “year” or that the MOOC was the

future of higher education. We agree with Meisenhelder (2013), who claims that “MOOC Mania” largely originated from the MOOC industry itself: “with the exception of a few individuals at elite universities (several of whom have recently become CEOs in their own MOOC companies), teaching faculty and students were not driving the discourse” (p. 7). The rhetoric of the MOOC does not reflect a diversity of points of view in society or in higher education, but instead, promotes the point of view of the MOOC industry and neoliberal educational reformers. Nor does this rhetoric abide by or encourage rational dialogue about technology in higher education. It does not back the claims it makes about the disruptive and transformative powers of the MOOC with evidence, but forwards hyperbole and speculation. It does not attempt to weight the pros and cons of the MOOC in a fair and balanced way or even contemplate the cons, but instead, tries to persuade people to accept the pros of the MOOC and the changes it supposedly effects as virtuous. The rhetoric of the MOOC may undermine rather than support rationality, overloading the prospect of public deliberation with sensation and hubris.

In sum, the rhetoric of the MOOC largely fails to support the public sphere. Furthermore, a public sphere surrounding the MOOC did not even exist because the decision to launch the MOOC in society and this decision’s execution happened prior to public deliberation. The choice to roll out the MOOC in higher education is consistent with the elite-driven decision-making regarding the choice to move forward with new technologies in contemporary society. As Jin and Lee (2014) point out, “the decision-making process” pertaining to new technologies “has been almost monopolised by experts and technocrats with no assurance of participation by citizens, even on issues that have a direct impact on people’s lives” (p. 24). Barney (2007) avers: “the design, development and regulation of technology is often exempt from formal, democratic political judgement” (p. 24). Elite as opposed to democratic decision-making is all too common, and the case of the MOOC in

higher education is one example of how this is so. For all of the lofty claims made about the power of the MOOC to democratize higher education, the majority of professors and students whose teaching and learning experiences stood to be most disrupted by the MOOC were not really consulted about whether or not they even wanted to be part of the MOOC revolution. While the beneficiaries of the MOOC trumpeted its democratizing powers, they did not seem to be engaging or including professors and students in democratic dialogue about the decision to accept or reject the MOOC's transformative role in higher education. The rhetoric of the MOOC spoke of professors and students, but these "stakeholders" did not make the ultimate decision to diffuse it.

Conclusion: A Plea for "Technological Citizenship" in Higher Education

As a remedy to the persuasive and profit-serving power of the rhetoric of the MOOC and its debilitation of the public sphere, and as a way to democratize the discourse that will surround whatever new edu-tech gets launched by the edu-tech industry at higher education in the future, we encourage the 21st century policy-makers, administrators, professors and students to put edu-tech in the public sphere *prior* to it being put before them as a sales campaign, so that they, not the edu-tech industry and its rhetoric, have the power to design the future of higher education. We also propose that "technological citizenship" be more rigorously taught and vigorously practiced in higher education (Barney, 2007; Frankfeld 1992; Lee & Jin, 2014).

What is "technological citizenship"?

Citizenship is often conceptualized as the "individual possession of rights against the state and corresponding obligations to it" (Barney, 2007, p. 11), but another important conceptualization of citizenship "is a way of knowing and acting, a way of being in the world, a practice" (Barney, 2007, p. 11). With regard to rights, technological citizenship refers to four: the right to knowledge about new technology; the right to participate in

decision-making about the design or diffusion of new technology; the right to informed consent about new technology in society; and, the right to limit new technology's potential endangerment of society (Frankenfeld, 1992). With regard to practice, technological citizenship refers to the day-to-day activity of making value judgements about technology in society "in both the moral and ethical spheres, judgement about means and ends, judgement about justice and the good life" (Barney, 2007, p. 37). Ideally, these rights and practices combine to form a citizen who is informed about the implications of new technologies before they become entrenched and able to meaningfully participate in technological decision-making.

The rhetoric of technology wields an enormous influence over society, and so it is important to cultivate in students the knowledge and skills requisite to being technological citizens. In the context of higher education, technological citizens would ask questions like: what is a good education? What type of education does democracy need? What role should new technology play in higher education? What ends should we direct our new technology toward? With regard to the role of the MOOC in higher education, technological citizens might ask: does the MOOC support or sabotage our vision of a good education? Is it ever right or wrong to MOOC-ify higher education? Even though we can MOOC-ify higher education, should we? If the MOOC is having negative as opposed to positive impacts on the workings of higher education, should we stop it? Can we? What means are available for doing so?

When we ask these types of provocative questions about the development of technology, the use of technology, and the effects of technology in higher education, we are also asking questions about how and why we are living with technology in society in the way we are, and thus opening a space for educators and students to better understand and change technology and society.

Technological citizenship is a challenge and an opportunity for 21st century educators, and we encourage educators across all disciplines to do more to empower their students to develop the knowledge and skills required for participation in the public sphere and in democracy. In the neoliberal university, where the primary role and goal of an education is to train the workers of the future, cultivating critically and analytically minded citizens may seem less and less a value. Yet, the pedagogy of technological citizenship offers a much needed, timely and entirely relevant balance to the reigning vocational impetus to equip students with technical knowledge and skills so they can serve whatever employer demands their labour power. We encourage educators to do more to empower students, who are also citizens and workers, to think and act critically about the rhetoric of edu-tech, the political-economy of the edu-tech industry, and the ethical and moral dimensions of edu-tech in society.

We also propose that everyone involved with the institutions of higher education push themselves to become better technological citizens. This offers us some defense against being pushed fast forward by the edu-tech industry's attempt to re-design the future of higher education. It also lets us move more cautiously toward a future of higher education that expresses our conscious design. As technological citizens, university administrators, professors and students can be better positioned to collaboratively reflect upon and publically deliberate about the advantages and disadvantages of digital technologies so that we, not the owners and promoters of edu-tech, remain the social agents of conservation and change in 21st century higher education.

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