Massiveness + Openness = New Literacies of Participation?

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Abstract

As the narratives that guide higher education fracture and realign, the topic of massive open online courses (MOOCs) makes visible the fault lines emerging in the field of contemporary academia. MOOCs challenge universities' conventional societal role as purveyors of knowledge and credentials: they are heralded by some as revolution, and derided by others as mere privatization. This position paper skirts that binary debate, with the author instead arguing that MOOCs may in the end be something else entirely: a Trojan horse for an ethos of participation and distributed expertise. While recognizing that most MOOCs at this juncture do not share those alignments, the author explores the possibility that digital, participatory literacies could be an unintended consequence of the combination of massiveness and openness. She draws on 2010 research into the early connectivist MOOC model as a means of teaching digital literacies. Focusing on MOOCs from a social communications and learning-focused perspective rather than an instrumental or technologically centered approach, the author suggests that it is the ways in which MOOCs open up questions of goal, purpose, and teacher/student roles that make their massive scale so powerful, and proposes that MOOCs can help acculturate learners to a form of new literacy development for the digital age.

Keywords: massive open online course (MOOC), scale, open education, new literacies, participatory culture

Introduction: Beyond Divisions of Definition

Over the past year and a half, massive open online courses (MOOCs) have exploded into the media limelight. Originally an experimental phenomenon integrating "the connectivity of social networking, the facilitation of an acknowledged expert in a field of study, and a collection of freely accessible online resources" (McAuley, Stewart, Siemens, & Cormier, 2010, p. 4), the MOOC has morphed into a juggernaut often acclaimed as a revolution in higher education (Pappano, 2012).

As MOOC hype has grown, however, the term has become a buzzword (Stewart, 2012a) and its meanings vague and contested. Not only are a wide variety of business and learning models represented in the many configurations of MOOC offerings currently available, responses *to* these courses and predictions regarding their implications for higher education are even more diverse.

This variety of responses to MOOCs is indicative of the fault lines becoming increasingly visible in the terrain of contemporary higher education. The term MOOC gets conflated with online education, with globalization, and with networked learning – to the point where public conversation about the topic becomes what Jackson (2013) calls "that most dangerous topic of discussion: a subject about which everybody needs to have an opinion" (para. 2). While Friedman (2013) hails the revolution in an article in *The New York Times*, others express concern over the unbundling of higher education services (Lima, 2012) and the transmission pedagogies that dominate many of the more prominent offerings (Bustillos, 2013). Some voices position MOOCs as synonymous with the privatization of higher education (Bady, 2013), while others – looking at very different course models – claim that they do not so much change the game of higher education as they are "playing a different game entirely" (Downes, 2012, para. 4).

This position paper takes up MOOCs neither as the future nor the death of academe. In it, the term will not be defined by the limitations of particular models of MOOC. Instead, the paper will extend the findings

of a 2010 research project on MOOCs to consider the possibilities of the phenomenon, in all its forms, for the sociocultural growth and spread of digital literacies. Rather than argue for or against a single perspective on MOOCs, my premise is that it may be productive to consider their potential as large, immersive – and largely unintentional – environments for acculturating people to new digital literacies.

New literacies are not merely the doing of the same old things with new technologies. In a world in which mobile, digital technologies permeate daily life on a seemingly ever-increasing basis, educators may mistake the usage of technologies within learning environments for digital literacies practice. New digital literacies, however, have an ethos component as well as a technological one: "new literacies are more 'participatory,' 'collaborative,' and 'distributed'" (Lankshear & Knobel, 2007, p. 9). The new literacies ethos "celebrates inclusion (everyone in), mass participation, distributed expertise, valid and rewardable roles for all who pitch in" (Lankshear & Knobel, 2007, p. 18).

Few MOOCs, at this juncture, overtly incorporate or foster this ethos. Yet, where massiveness intersects with openness, giving people the opportunity to interact with each other in networked environments, an environment for this new ethos may be inadvertently created. This paper argues that networked learning opportunities at the scale MOOCs are beginning to reach have the potential to expose large numbers of people to participatory literacies and learning perspectives, even if and where facilitation and testing are highly instrumental in approach.

Thus, even if many models of MOOC reflect attempts by elite gatekeeping institutions and corporate interests to maintain control, market dominance, and the right to determine what counts as knowledge (Stewart, 2012b), MOOCs may nonetheless serve as a Trojan horse for the sociocultural development of participatory perspectives and literacies.

Networked engagement is a key to this potential. According to Siemens and Weller (2011), networks are "defined by attributes of autonomy, reduced resistance to information flow, ease of connectivity, organic growth, rapid iteration and improvement of ideas and concepts, as well as ease of scalability" (p. 166). Current higher education practices – online or not – seldom integrate networked approaches to any significant extent (Siemens & Weller, 2011). Nonetheless, the capacity for networking exists in any online course that integrates some form of chat system with user profiles: there is potential for peers to connect with peers and develop autonomous channels of information flow that bypass the traditional top-down model of teacher-centered learning.

In a conventional online course offered via learning management system (LMS), the uptake of this capacity may be minimal unless fostered by faculty and by course environment. In a MOOC, this is equally true. However, some form of networked discussion does appear to be a common feature of most MOOC environments: it was noted from a 2013 survey of 103 MOOC professors conducted by *The Chronicle of Higher Education* that "it was not unusual for a professor to be drawn into the discussion forums" (Kolowich, 2013, "Price of Free Teaching," para. 3). The Coursera *Fundamentals of Online Learning* course that was suspended without notice in February 2013 was speculated to have closed in part because the participatory Google Docs discussion became chaotic (Jaschik, 2013). These reports suggest, then, that almost all MOOCs do enable some level of networked engagement, whether or not they scaffold it effectively.

My premise is that this possibility of open, networked participation may become more powerful at a massive scale than in a conventionally sized online course, due to a version of the network effect, whereby "the more people use a service then the more useful those users find it, thus recommending it and adding more users" (Siemens & Weller, 2011, p. 166). As Anderson (2004) notes, "The greatest affordance of the web for educational use is the profound and multifaceted increase in communication and interaction capability" (p. 42): where MOOCs enable and foster peer-to-peer participation and the generation and sharing of knowledge between learners, the ethos of new literacies is being spread at a massive scale.

Understanding MOOC Models: The cMOOC and the xMOOC

This premise is an extension of reflective MOOC research undertaken in 2010. I took my first MOOC in the Spring of that year, as one of a few hundred active participants in an exploratory course called *Futures of Education* ("EdFutures" for short). It was an independent, distributed, non-institutional offering based in what has become known as the connectivist or cMOOC approach. A variety of avenues were available for participation in the course: there was a central discussion forum on the main course site, and regularly facilitated participatory sessions in Elluminate Live!, but we were encouraged to use our own

blogs and other types of media for engagement as well. There was a Twitter hashtag aggregating all #edfutures tweets, and Downes' daily newsletter gathered, aggregated, and shared all course-related blog posts, videos, and other contributions tagged by participants. Learners were free to contribute as much or as little as we wished to the course: autonomy over our own learning was paramount. In connecting with other participants through the ideas they expressed in their blogs, I built ties that are still a valued part of my professional network today. Interaction, exploration, and contribution were emphasized over any sense of mastery or completion.

The first MOOC, *Connectivism and Connected Knowledge 2008 (CCK08)*, was convened in 2008, when George Siemens of the University of Manitoba and Stephen Downes of the National Research Council of Canada opened up an accredited course on their work in connectivist learning theory to the public. Some 2,300 people signed up (Fini, 2009, Background section, para. 3). The model emerged iteratively and built on the already-existing work of open educators David Wiley and Alec Couros, among others, emphasizing networked practices, knowledge generation, and distributed, many-to-many channels of communication rather than the conventional teacher-centric focus of traditional courses. These early MOOCs – like those that continue to draw upon the connectivist tradition – were experimental, non-linear, and deeply dialogic and participatory. Contributions from participants frequently direct the course of discussion, and the connections and ideas built between learners can be considered as valuable as the knowledge expounded by the facilitator.

Most MOOCs, of course, are no longer cMOOCs. Since the term MOOC was first applied to the open *Introduction to Artificial Intelligence* course offered by Stanford University in Fall 2011, a different model of MOOC has emerged. This model is focused around formalized courses from elite university partners. Sometimes called xMOOCs as distinct from the less well-known connectivist offerings, many of these courses center more on delivery of course content than on the participatory exploration characterized by cMOOCs. The majority of claims around MOOC revolution and disruption cohere around the xMOOC model, which more closely parallels that of the conventional university.

However, not all xMOOCs are the same. Some, like Udacity and Coursera operate for profit, while EdX and the UK's Futurelearn operate as non-profit platforms. Their individual course offerings are for the most part under the purview of participating institutions and thus are far from a single or unified entity. Some are run on very similar pedagogical principles to the networked cMOOCs; others are very much the opposite. In Winter 2013, I registered for and completed The University of Edinburgh's *E-Learning and Digital Cultures* MOOC run through Coursera, which emphasized peer networking and student sensemaking contributions, including peer grading of the digital artifacts that made up the final assignment. The learning experience this course offered was structurally and pedagogically similar to that of a cMOOC.

The distinctions individual university partners and teaching faculty may make regarding their given courses needs to be kept in mind when generalizing about MOOC models. Although cMOOCs tend towards a more participatory approach and thus arguably are more significant for digital literacies development, it can be proposed that any combination of massiveness and openness creates potential for a MOOC to expose learners to participatory concepts and literacies surrounding learning.

Massiveness as the Scaling of Education

The argument for literacies development within MOOCs depends not only on the fostering of participatory forms of engagement within massive open online environments, but also on particular pedagogical and conceptual approaches to learning, massiveness, and openness. These approaches are ethos-focused, differentiating them from the market- and metrics-focused perspectives through which MOOCs are most commonly portrayed in media.

So what does "massive" mean, in MOOCs? Within the online context, massiveness is frequently used as a synonym for the concept of scale, or the vast growth potential reputedly offered by digital technologies. The question of whether MOOCs can effectively "scale" education is a central one in the ongoing debate. In educational administration contexts, however, scale has traditionally been taken up in terms of its origins in Spencer's (1974) economies of scale principle. As a business concept, the idea of economies of scale references a curvilinear relationship between management costs and items produced, with cost advantages obtained due to increased size.

The distinctions between the network and educational administration/business positions expose vast differences in fundamental assumptions. The latter view emphasizes massiveness as a numeric quantity or return on investment (ROI).

Economies of scale perspectives on optimal class and school size per investment per student have long been applied to public education, and are part of the research literature dating back to Hirsch (1959) and Cohn (1968). However, Spencer's (1974) framework for scale in education is built on the premise of repeatable processes delivering identical products or services. The economies of scale lens and its emphasis on efficiency and effectiveness assumes a simple in-out delivery model of learning.

In Internet and network terminology, usage of the term scale doesn't always imply the maximization goal suggested by the economies of scale lens. In the cMOOC model, "massive" is not intended to signify potential ROI, but the size and capacity of the course network that remixes and generates new knowledge. This in turn reflects a view of learning as participatory rather than transmission-based.

Information vs. Communications Perspectives on Education and Technologies

These competing views on scale have notable parallels in other cultural conversations on the intersection of education and technologies. Weller's (2007) work suggests that two dominant perspectives shape the cultural conversation on e-learning in general: one foregrounds information and resources as the core of the learning process, and the second focuses on communications as key to a productive learning environment. Perspectives on MOOCs also fall broadly into these two categories. Thus, while this paper argues that all MOOC models can be framed on a pedagogical spectrum contributing to literacies development, my argument itself is located within the communications-focused view of learning and technologies.

This is not the dominant view within business, venture capital, or educational administration circles and thus is not a central part of the messaging being shared about MOOCs in media. Rather, MOOC hype tends to promote information and technology-focused perspectives on education. The information perspective is premised on the assumption of clear parameters around what needs to be known, and on mastery of content as the mark of successful delivery. It emphasizes maximization and product rather than learning as a process.

Andrew Ng, co-founder of Coursera, commented in a Canadian Broadcasting Corporation (CBC) Radio interview in February of 2013: "we now have the technology for professors to teach not just 50 students at a time but 50,000." Ng's emphasis on scale asserts that the mere capacity to enroll and deliver content to large numbers of students equates to teaching them. It fits with the larger, popular media narrative that focuses on MOOCs as a technological phenomenon focused on efficiencies.

In the CBC interview, Ng noted that in his previous role as a Stanford professor, he taught approximately 400 students a year, whereas in his first open online course, there were 100,000 registrants. His conclusion was that he would have had to "teach for 250 years to reach that audience" (Noorani, 2013).

Ng's vision for MOOCs and higher education appears to center around assumptions that increasing numbers has no effect on learning except to increase the numbers of those engaged in the process. Stemming from what Chandler (2011) calls a "*technology-led* theory of social change" ("Technology-Led Theories," para. 1, emphasis in original), it deterministically reduces a complex societal phenomenon like education to a simple equation of "technology x does thing y." The rest of the factors involved in the process get obscured or intentionally dismissed: the power of the technology to act is assumed, and the power of social and human factors to affect, mitigate, or shape the adoption of the technology in their turn are left out of the conversation.

Gur and Wiley (2007) note that in this type of information-centered model, "education is often reduced to the packaging and delivery of information, in which the process of teaching is reduced to the transmission of information and courses are transformed into courseware" (p. 1). On the other hand, the communications-focused perspective emphasizes dialogue and process.

When communications are seen as key to learning, the numeric focus of the information-centered paradigm cannot be reconciled with the significant and varied body of educational research which foregrounds the importance of interactive (Dewey, 1938), situational (Lave & Wenger, 1991), and critical (Freire, 1970) perspectives on learning. The communications approach focuses on the Internet not as a technology but as a medium for human engagement. "The Internet encourages discussion, dialogue and

community that is not limited by time or place. The role of educators in this world is to facilitate dialogue and support students in their understanding of resources" (Weller, 2007, p. 6).

The information-centered view fails to account for the relational focus of many educators, particularly from social science and humanities disciplines, to their practice and their understanding of what learning and teaching are. The dominance of these representations of MOOCs leads to objections to the idea of MOOCs in general, based on the premise that learning is a social and communicative practice (Bruner, 1983), and thus cannot be scaled in purely economic terms.

Digital Literacies, New Literacies

It is from a communicative practices perspective that the intersection of massiveness and openness in MOOCs – no matter their structural model – may be taken up as having sociocultural scale effects on learning and literacies.

The studies in new literacies (Barton, 1994) established the use of the plural "literacies" rather than the singular "literacy" in order to push beyond the binary of "literate" and "illiterate" that still shapes our cultural threshold-based conceptions surrounding literacy (Belshaw, 2012). Lankshear and Knobel (2007) frame new literacies as follows:

> The more a literacy practice privileges participation over publishing, distributed expertise over centralized expertise, collective intelligence over individual possessive intelligence, collaboration over individuated authorship, dispersion over scarcity, sharing over ownership, experimentation over "normalization," innovation and evolution over stability and fixity, creative-innovative rule breaking over generic purity and policing, relationship over information broadcast, and so on, the more we should regard it as a "new" literacy. (p. 21)

This is what Gee (1996) calls literacies as social practices. There has been extensive research into the nuances of new cultural literacies related to technologies (Pinto, Cordón, & Gómez Díaz, 2010), particularly on the complex and multiple collection of literacies required for effective participation in digital social environments. This view of literacies broadly aligns with the communicative practices perspective on learning. Literacies are distinct from skills: Belshaw (2012) defines a skill as "a controlled activity (such as a physical action) that an individual has learned to perform," whereas "literacy depends on context and particular mediating technologies" (Literacies section, para. 2).

Belshaw (2012) notes that skills are subject to objective thresholds, whereas "literacy is a condition, not a threshold ... you cannot become literate merely through skill acquisition – there are meta-level processes also required" (Conclusion section, para. 1). In terms of these meta-processes, being digitally literate is a condition of being able to make meaning as a social practice and at a meta-level via interaction with mediating digital technologies. As Gourlay (2012) points out, however, the techno-rationalist skills lens and its focus on decontextualized procedure persists in influence: "the fundamental shift in understanding demanded by the original (once-disruptive) 'literacies' critique has been largely lost through a process of domestication of the term" (p. 97). This may reflect the dominance of information-focused perspectives related to education in the popular discourse.

MOOCs, however, can encourage meta-processing and a communications-focused approach to learning via mass-scaled networked participation. To be digitally literate is to be able to engage the connections and communications possibilities of digital technologies, in their capacity to generate, remix, repurpose, and share new knowledge as well as simply deliver existing information. Many people have no experience or conception of these types of possibilities: simply being online does not necessarily build social and communicative familiarity with what Lankshear and Knobel (2007) refer to as the "distinctive ethos" of participatory culture (Jenkins, 2006). But interacting within an environment that exposes and encourages meta-level processing as well as knowledge generation, remixing, repurposing, and sharing can help create that condition of literacy. MOOCs that expose learners to these practices can serve as an introduction to participatory learning and the ethos of new literacies that accompanies it.

MOOCs in Research: The "In the Open" Knowledge Synthesis Project

This claim is in keeping with those of the 2010 research project entitled "In the Open: The MOOC Model as Digital Practice" (McAuley et al., 2010) funded by Social Sciences and Humanities Research Council of Canada. The project was a narrative knowledge synthesis project exploring the MOOC model for open education and organizational collaboration through networks. Its goal was to introduce MOOCs – which

were then an unknown phenomenon – into the Canadian research landscape, and to posit them as an ecosystem for the development of digital practices.

In 2010, all MOOCs were cMOOCs: the intersection of elite universities and venture capital that has since had the name MOOC grafted onto its operations had not yet emerged. Each of us on the research team drew on our MOOC experiences as well as our separate research areas to outline MOOCs as a way of learning in a networked world.

The project articulated the ways in which MOOCs encourage the practical and conceptual development of the participatory, networked practices and literacies that social media privilege. It focused on how networked interactions create new frameworks for what knowledge *is*. "While the industrial age was defined by mega-corporations and mass production, digital tools and connectivity open up a range of new and creative knowledge possibilities for individuals and networks" (McAuley et al., 2010, p. 9). In the cMOOC model of education, learners' capacity to contribute to knowledge is foregrounded.

The conclusions of the project were that MOOCs, as we understood them at the time, embody the participatory ethos of digital practices in their reputational, relational, and networked operations. The research narratives collected suggested that immersive participation in MOOCs helps foreground and develop the kinds of skills and literacies required for successful participation in distributed digital networks and the larger digital economy: participants in cMOOCs, at least, are exposed to a distributed network in which a reputational and networked identity can be developed (McAuley et al., 2010, p. 35). They gain experience with the concept of participatory engagement, as cMOOCs are dialogic environments focused on generating new knowledge. "The experience of negotiating knowledge in a network, among a large group of people with potentially divergent or even contradictory results, is one of the digital literacies that a MOOC makes available to learners" (McAuley et al., 2010, p. 35).

The decentralized, distributed nature of this type of communication of one's learning builds on the particular capacities of digital technologies: replicability enables remix and repurposing, searchability enables navigation of decentralized environments, and scalable sharing may lead to unintended audiences. cMOOCs enable and encourage open, participatory work among learners, where the audience is not solely or even primarily the instructor, but rather peers:

> The emergent, self-defined nature of the MOOC capitalizes on the strengths that individuals bring to it in terms of their experiences, knowledge, skills with a range of collaborative software environments and perhaps most importantly, with the "soft skills" essential for successful negotiation and collaboration. In all these dimensions, successful participation in a MOOC parallels and scaffolds successful participation in the larger digital economy. (McAuley et al., 2010, p. 5)

MOOCs at the time had no business model and ran on volunteer investments of time, energy, and knowledge, so their ultimate reach in total numbers was likely to be limited to incremental networked growth. Nonetheless, our premise was that they could, given enough enrollment over the long term, gradually alter the sociocultural concept of digital practice from a closed, hierarchical technology model to an open, networked one.

Openness and Network Literacies

The In the Open project (McAuley et al., 2010) and its conclusions were based on the communicative learning perspective premise that openness is an immersive, networked practice in which conditions of literacy and meta-processing are gradually attained. Openness, like scale, has multiple usages: open content, open educational resources, and open access are all important movements in contemporary education. But all these forms of "open" tend to be tied in some way to the paths by which the Internet bypasses closed and traditionally monetized systems. There is another form of "open" that the Internet makes possible, and it is tied to a concept of value that does not necessarily monetize well. It is "open" as opposed to closed, signifying public, peer-oriented communications and connections emphasizing iterative, collaborative, process-focused knowledge generation.

It is the kind of work that cMOOCs were developed to enable. The model, in effect, frames learners as scholars: as identities with their own ideas to contribute and disseminate, rather than as conventional students. Pearce, Weller, Scanlon, and Kinsley (2010) define open scholarship as "embracing the open values, ideology and potential of technologies born of peer-to-peer networking and wiki ways of working in order to benefit both the academy and society" (p. 5). While open scholarship focuses on the

networked practices of formal academics rather than the motley collection of teachers, faculty, laypeople, and conventional students who have tended to gravitate to cMOOCs' education-focused topics, the open knowledge generation that has emerged from cMOOCs has resulted in formal academic papers as well as a broad, ongoing body of blog posts and shared ideas that might be thought of as what Veletsianos and Kimmons (2012) frame as "networked participatory scholarship" (p. 766).

There are significant issues, however, between this type of open knowledge generation and the legitimacy structures of the traditional academy. Burton (2009) explores the conflicts between the open practices he claims dominate online participatory culture and those of academic culture:

> One would think openness would be consistent with the ideals of a liberal education or academic freedom, but those ideals are endorsed only insofar as content is concerned: one can research or study anything; one may not, however, depart from institutionalized formats, venues, or procedures for making or sharing knowledge (that is, if one wishes to receive academic credit for one's efforts). (para. 2)

cMOOCs have always existed more or less on the periphery of the academy, occasionally enhancing credentialed courses by opening them to the public but operating as complements rather than competition. As a result, the conflict Burton addresses seldom manifested in the cMOOC model in spite of its participatory nature, as cMOOCs never aimed to replace conventional educational offerings.

xMOOCs, on the other hand, have been positioned directly as a threat to the traditional structures of the academy. Ironically, most appear designed to pose little overt threat to the conventions and exclusivity of academic knowledge management, appearing instead to "exploit the advantages of online communication without letting such communication challenge its expertise model" (Burton, 2009, para. 4). But the very fact that they have been touted in media as a revolution may position them to reach a wide enough audience to begin to effect a sociocultural shift in participatory, networked literacies. It is the scale of MOOCs – both in the sense of their individual large classes and their status as a rapidly emerging cultural phenomenon – that makes them an inadvertent Trojan horse for the introduction of peer-to-peer concepts and literacies about learning.

MOOCs to date have drawn millions of registrants worldwide, with 4 million alone signing up for Coursera courses (Anders, 2013). Many of those learners certainly will not finish their courses, in the conventional sense; the attrition rate in MOOCs is high (Jordan, 2013). There has been minimal published research yet on what happens with so-called MOOC dropouts, and whether or not the term dropout is appropriate. Without barriers of payment or qualification in place, some learners may simply register because they can, with the goal of looking around rather than actually engaging with course materials. Others have goals different from those intended by the instructors, institution, or course provider. Still, even discounting the high percentages that do not complete, hundreds of thousands of people are slowly beginning to engage in MOOCs.

When we argued in the In the Open project (McAuley et al., 2010) that cMOOCs could have an eventual effect on society's digital literacies if enough people eventually registered, we still thought in terms of five, perhaps maximum six digits. Instead, the xMOOC model rocketed past registration expectations in months. And in this paper, I posit that institutions placing their proverbial eggs in the basket of this type of educational future may well be undermining their own positions as purveyors of closed, expert knowledge.

Many xMOOCs may be designed and intended to maintain the expertise model and the market share of elite universities over the specter of knowledge abundance and participatory culture. However, so long as the courses as platforms continue to enable participatory networking and engagement among students, they effectively begin to sow the very seeds of new literacies that challenge and undermine that instrumentalist perspective on education and expertise. Even contained within the most restrictive LMS and confined to a discussion board, learners in courses on the xMOOC spectrum nonetheless are exposed, in effect, to a fledgling network. The network effect of peer-oriented communications and connections and process-focused knowledge generation may thus be difficult to contain entirely, particularly at scale. Thus xMOOCs in their very success may end up creating conditions for the development of open, communications-focused, peer-to-peer literacies about learning.

New Literacies and Roles for Teachers and Students

It is particularly in the shifting of teacher and student roles that I suggest MOOCs may inadvertently create conditions for the development of new, participatory literacies.

First, in all MOOCs that enable voluntary, open, free registration, learners set some of their own terms for participation in a way that differs from conventional higher education offerings. The fact that a learner need not qualify nor complete a MOOC in order to be considered a legitimate student within that course creates a very different relationship to course requirements and to the instructor, and alters learners' agency over the terms of their experiences. This decentered, fluid notion of what a course *is* corresponds with the participatory ethos outlined by Lankshear and Knobel (2007).

Opening a course to the public involves loosening the rigid expectations around goals and completion that have conventionally framed our approaches to formalized learning environments. We are acculturated to formalized educational offerings being either mandatory – as in public K-12 education – or to institutions charging us for the privilege of registration. Course completion is prioritized. With cost and qualifications removed as barriers, however, many people may register out of mere curiosity, or without the goal of completion in mind. Others may have no reasonable capacity or preparation to engage with the material.

Thus MOOC instructors' role simply cannot be to ensure that all registrants complete the course, even if enrollment numbers are not particularly high. In a sense, registration in a MOOC may be more akin to the commitment made by showing up for a conventional free public lecture than that made by paying for registration. Openness – in the sense that anyone can join, for any reason he/she considers legitimate – begins to strike at foundational cultural concepts of what a course and learning *are*.

The second major shift that MOOCs create within teacher and student roles is that where MOOC learners *do* choose to engage with course expectations, relationships between teacher and students will likely foreground Lankshear and Knobel's (2007) new literacies of collaborative, distributed expertise over centralized expertise.

The academy and the traditional role of the professor are both deeply rooted in the concept of centralized expertise. In an era where knowledge materials were scarce and expensive to produce and share, access was centralized in institutions such as libraries, monasteries, or universities. Within the university model, professors offered the expertise necessary to navigate and interpret the resources in question. In this centralization of expertise, particular power relations between the roles of teacher and student were and are implied wherein the teacher's knowledge is that which is valued and the flow of information moves only in a single direction. These implicit structures do not foster the generation of new collaborative knowledge or the collective intelligence, sharing, or experimentation that Lankshear and Knobel (2007) frame as "new" literacies. Too often, even in an era of knowledge abundance, the structures and roles through which we organize learning experiences are designed on pre-digital concepts of what is possible and valid.

Thus traditional models of education have the teacher at the center, providing knowledge, structure, care and validation of a student's learning. Learning and value can and do come from this approach, though the model can condition learners to approach learning situations as if they are vessels to be filled, rather than active, central participants in their own meaning-making (Freire, 1970). For all that pedagogical research over recent decades has emphasized the transition from "sage on the stage" to "guide on the side" (King, 1993), aspects of the traditional educational model that are premised in scarcity have proven deeply resilient and self-replicating.

But the larger the MOOC, I propose, the more it destabilizes the centrality of the teacher's role within the course. This may appear counter-intuitive: the larger the group of learners, the more the facilitator may stand out at first as the only identifiable figure in a sea of unknown names or faces. However, at massive scale, that relationship cannot be expected to be directly reciprocal. Even where a MOOC instructor centers a course on his or her expertise, the scale of the class violates the convention of personal focus and contact between teacher and student. In MOOCs with 20,000 or even 2,000 students, teachers cannot humanly assess and validate the mastery of those learners.

In one sense this mirrors large face-to-face introductory courses within conventional university systems. But within asynchronous and even minimally networked environments like those of an online LMS or discussion board, learners seeking engagement and validation can encounter and engage with peers in

ways not conventionally acceptable in synchronous lecture halls. Thus the one-way flow of information that characterizes traditional learning environments begins to be interrupted, and the teacher begins to be decentered as the core arbiter of the learning experience.

This was foreshadowed in the In the Open project, where in the narrative inquiry section of the research, we reflected on the altered roles of student and teacher in MOOCs:

> Overall ... it is the relational and role-based aspects of the MOOC that are perhaps the greatest departure and adjustment for course participants. Schooling trains us, even in spite of progressive pedagogies, towards a relational status quo where power and knowledge still inhere in the role of teacher. The MOOC model represents a different engagement that reflects the norms of digital interactions and social media culture far more than traditional education. (McAuley et al., 2010, p. 21)

A teacher, then, should not and generally *cannot* be the sole focus of a student's experience in a MOOC. Recognition of this is evidenced by Harvard University's March 2013 call for alumni of their *Ancient Greek Hero* course to serve as unpaid mentors and monitors within the course discussion forums (Pérez-Peña, 2013). While there has been necessary concern over the labor implications of this request – and of MOOCs in general – (Rees, 2013) the incorporation of informal, semi-peer facilitators and mentors suggests an opening up of institutional control over expertise and knowledge management.

Thus the very massiveness of a MOOC decenters the teacher's role as knower and exposes learners to a context in which the new literacy of distributed expertise has value. Ironically, it may be in this type of unintentional fostering of participatory literacies that MOOCs post their most dramatic threat to traditional notions and practices of higher education. If enough people try MOOCs, and begin to see themselves as learners with agency to contribute knowledge and determine what they take from a course experience, this may effect a gradual sociocultural shift towards participatory, communicative concepts of learning.

Conclusion

MOOCs' particular combination of massiveness and openness may expose a large population of learners to new digital literacies and learning roles via exposure to open, decentered practices and distributed expertise. From a social communications and learning-focused perspective, this means that massiveness may have important implications for education beyond the economies of scale framework. Even if few of the largest MOOCs are currently designed to resemble Trojan horses for participatory culture, they nonetheless have the potential to expose large sectors of society to new literacies and meta-level processing around the idea of learning as a communicative practice. The capacity for networked interaction may itself be subject to network effects and, therefore, scale and encourage a digital literacies ethos of distributed expertise, increased peer-to-peer participation, collaboration, and knowledge generation.

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