Chapter 14
What’s a “Technician” to Do?
Theorizing and Articulating MOOC Maintenance Concerns

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ABSTRACT

Karl Marx wrote about the importance of the worker in the role of machinery. Further, Marx discusses how machines replace the role of the factory workers. With the workers replaced, the care of the machines is left to technicians, who continually repair and maintain the machines. MOOCs exist under similar circumstances. Just as a machine may replace workers on a production line, a single MOOC replaces classroom instructors. Thus, the teacher/designer, the one who maintains the MOOC, exists in similar conditions as Marx’s worker and Ellul’s technician. Using a Marxist lens, one can examine closer how these sorts of theoretical concerns espoused by Marx, Ellul, and other thinkers in technology consider the design and use of MOOCs. The MOOC must either be constantly updated (with new and fresh information) or perish (to be replaced by a better MOOC). In this chapter, the author will flush out other challenges within the scope of MOOC maintenance, delivery, and other concerns as they connect to MOOC infrastructure and issue of maintenance.

INTRODUCTION

Like every other instrument for increasing the productivity of labour, machinery is intended to cheapen commodities… (Marx, 1992, p.492)

Massive Online Open Courses (or MOOCs) exist in a dubious state. Once considered a technology that would change teaching and the landscape of course delivery, research definitively demonstrates that MOOCs are underperforming. With a nearly 90% dropout rate, concerns about their lack of effectiveness run rampant (p.11). Some academics even posit that MOOCs may be more superficially significant than useful. An article in the Chronicle of Higher Education suggested with emphasis, “THE YEAR OF THE MOOCs HAS COME AND GONE” (Sturgis, 2015, p.11). Yet, we cannot deny that MOOCs...
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carry inherent disadvantages. The retention of students who enroll in MOOCs is problematized by several factors. Massachusetts Institute of Technology physicist, David Pritchard, and other researchers who teach MOOCs have not found them to be entirely sustainable in terms of retention or in terms of being effective business models. Half of the 17,000 people who signed up for Pritchard’s course did not show up for the first day of class (Pope, 2015, p.69). To further jeopardize the success of his MOOCs, Pritchard confessed that only about ten percent of these students actually made it as far as the second assignment (Pope, 2015, p.70). Teaching even more conventional online courses, one is easily familiar with the horrendous rates of immediate attrition and even larger rates of those who eventually drop the course. Thus, the retention problems inherent with most MOOCs are no surprise; we see these sorts of behaviors in the microcosms of conventional online courses.

Competition spurred among universities who sponsor MOOCs is also significant. These days, everyone seems to be making an investment towards what seems like the newest and hottest ticket in higher education: online education. Universities are in a rush to claim online spaces of instruction before the market begins to implode sending students to the cheapest courses with the biggest brands. With such growth and competition between MOOCs, comes an inevitable economic and procedural concern: Everyone wants their MOOC to be the best. Everyone wants their MOOC to dominate in a particular course or discipline. However, with the leading MOOC, comes, what is, an erroneous conception of technological and educational superiority. Conflating the issue, the schools with the biggest budgets will no-doubt work the hardest and spend the most money to construct the most dynamic MOOCs to claim such superiority. Why? Because, they have the resources to do it. Looking forward, Sebastian Thrun, co-founder of the MOOC provider Udacity supports such suppositions while claiming that in fifty years, ten institutions would be responsible for delivering all of higher education (Pope, 2015, p. 69).

Not only do attrition rates and competition wrought the premise of the MOOC, the pedagogy surrounding MOOCs is problematic as well. How can teachers evaluate large quantities of students and thus award credit upon completion? Honestly, evaluation is a huge problem for any MOOC, especially if the MOOC focuses on students who are committed to improving their writing. With the typical workload of an online composition instructor, who grades and grades and grades, one can only imagine the logistical nightmare of evaluating hundreds, if not thousands, of students in a massive online environment. Thus, evaluation and assessment is one of the most significant concerns with respect to MOOCs in writing/composition programs. Head (2014) writes in the “Are MOOCs the Future of General Education,” that “We [do] not have the ability to evaluate our students with easily graded, objective testing methods (p. 247), especially in first-year writing and composition courses. Likewise, Head continues by suggesting in the current state of the MOOC, we need graders and teaching assistants. At this point in the development and implementation of MOOCs, one theorist suggests, “Machine grading is an unavoidable necessity” (p. 249). Yet, the technology to machine grade is still unavailable, which in essence kills MOOCs within the discipline of composition. As a solution, at this point, only peer review remains, but the value of peer review is always in question, especially in the era of 140-word commentary (note how interactions on social media and Web 2.0 seem to limit the practice of responding to few and fewer words). Head (2014) continues by suggesting, “If machine grading is not viable, then the platform providers must employ graders and/or testing centers to facilitate evaluation” (p. 249).

Developing something like artificial intelligence “graders” will, unlike already existing programs, find flaws in formatting, usage, punctuation, and be able to assess documents much like compositionists do. Thus, the art of evaluation, as we know it and understand it today, may simply be reduced to a series of algorithms programmed by an instructional designer working alongside a handful of experts in
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