Ubiquity Symposium

MOOCs and Technology to Advance Learning and Learning Research

The MOOC Spring

by Fred Siff

Editor's Introduction

Fred Siff of the University of Cincinnati warns us that online learning, and in particular MOOCs, are threatening to overrun not just old models of instruction but the very nature of higher education institutions themselves.

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Questions abound yet the reality bites: The customer loves them. That should matter. Top academic administrators such as the incoming president of Yale (noting that a question larger than those of MOOCs is "how to adapt the old teaching model for students who have grown up online"—necessitating the formation of a digital strategy [1]) and the president of Stanford (noting the coming tsunami [2]) have not only taken notice, but have taken on the many issues their wide cultural (if not academic) acceptance has brought up. In fact, that acceptance has made the debate part of our contemporary social culture. The *New York Times* had both a front-page story and an op-ed piece in its April 5, 2013 issue. And earlier that same week, it had several others. (I consider attention by the *The Times* a significant reflection of our national culture.) The debate over the changes being precipitated throughout higher education is important—raising some of the most critical questions for which we in academia have either taken the old answers (customs) for granted or just ignored. Dr. Thille states many of the issues, all of which are valid; I'll note a few more, and then express some opinions.

There has long been an argument about seat time versus competency-based credits [3], reaching a bit of a crescendo now with varied online coursework. Our historic take-it-or-leave-it single model (show up at 9 a.m. for 50 minutes in the designated classroom three times a week for 10 or 15 weeks, take two exams and you get certified) is not only woefully outmoded, but also increasingly unacceptable to the customer. Technology has made better models possible, such as the widely used hybrid model of the last several years. MOOCs take it up a notch (or two) and make that argument even more critical. What makes a learning experience (not limited to a semester course) worthy of credit? Under what rules are one university's credits transferable to another? Or, more difficult, under what rules does one university award credits for some MOOC-from–cyberspace? Leading to an analysis of the process under which a

university validates (and keeps current) a set of courses worthy of awarding its degree? What does accreditation mean? Overturning these old mossy stones can get really ugly.

Listen to the customer, a phrase from business, is increasingly relevant to colleges who hardly ever have done so. Fundamental issues, to my mind, are how to make online education really work: for students, so they actually both learn and apply credits to a degree; for faculty, who will have new roles, including "Seinfeld"-like residuals/royalties and less teaching ("sorry, we have a better course from cyberspace") replaced by more guiding/coaching/mentoring; and for universities as they deal with a new competitive environment (why go to College Y when it's all online from College X) and a challenged if not broken business model. I am not considering courses for enrichment, as are mostly going on now. They don't have these issues, as they are more like entertainment or the Rosetta Stone "courses."

The technology issues are far less critical. The technology is pretty good now, for both course creators and students, albeit expensive to produce and waiting on a business model that actually shows a profit. If technology advances were to cease now the issues raised above would still be relevant, having little to do with the technology. The answers will not come from technologists, but from the academicians who award degrees—teaching faculty and administrators. But if these are bogged down in the fog of faculty committees, by the time some answer them it'll be too late, for answers will have been found in other places (let's hope not the University of Phoenix).

There are many pedagogical issues. Some of the more critical and intriguing are: What courses—and pedagogical approaches—work best in these different environments? What types of learners are best able to deal with varied types of courses? How to blend online with personal (teachers and peers) contact? Do online courses "work" as well as traditional courses (as if we knew how the traditional ones ever worked)? On this issue, I'd rather not wait for the slew of Ed school master's theses to wrestle with that question. Just like whether word processing produces better writing, I know it when I see/use it. A distinguished geology professor I know taught a few years ago both traditional and purely online versions of the same course in the same term, repeatedly. He believed, based on his experience, if anything students in the online version performed better, were more engaged, and learned more. The point is that it is, after all, dependent on the way in which the instructional tools are used by a competent teacher.

Finally, there are significant strategic issues for each (and every, for none will be untouched by this game changing phenomenon) institution as well as our higher education industry. I find this to be the most intriguing question. Each institution will have to develop the digital strategy referenced earlier, a strategy for dealing with online coursework (and degrees of its utilization and applicability) to MOOCs. It seems to me that such a strategy will define the institution into the next decade.

Will the school be a producer, consumer, or ignorer? What if an institution's faculty rebels against using "outsiders" (as Duke, Amherst and San Jose State, among others, have recently done [4])? These latter actions reflect another piece of the institutional puzzle: If "the workers" are worried about their jobs in an automated world it is really getting serious—and personal—it's no longer about "quality degradation." And then there are the meta-questions: What does this mean to the industry of higher education? Is this a way of providing more affordable and accessible higher education? Is this a way for our traditional non-profit institutions to compete with those for profit in providing better and varied access points? Will there still be a need for mid-level or lower-level schools, and their professors? Will it become like the airline industry, with only a few mega-carriers? Will only the commuter schools (which are most threatened) have their existence challenged or will residential colleges also contract? What is the role of the residential college (see the beginnings of a discussion at the MIT-Harvard Symposium, [5])? What of the for-profits like the University of Phoenix? Which schools will prosper, developing an effective business model, and which will fail?

The questions posed by MOOCs and the associated new models of instruction are just that—questions, because this new phenomenon is just now being addressed. William Bowen, President Emeritus of both the Mellon Foundation and Princeton University, recognizes "We cannot expect to have answers yet to the important questions about online learning. At this point, the most we can hope for is to have identified key questions, to have shown a willingness to test out ideas, and to have demonstrated a readiness to modify approaches if doing so is indicated" [6]. Yet there are some questions which ought not wait for complete knowledge and experience on which to base action, in real-time, not college-committee-time.

Metaphors for what is going on proliferate. This article began with a tsunami – let us end with an avalanche. Sir Michael Barber (chief education adviser at Pearson) et al. make a deep, detailed and persuasive argument that there exists a "threat posed to traditional 20th century universities if key institutions don't change radically, as well as the huge opportunities open to

them if they do. The avalanche metaphor is appropriate because the one certainty for anyone in the path of an avalanche is that standing still is not an option." [8]

Several things are clear I think. The changes being wrought are positive, albeit disruptive (to use a currently popular descriptor) because: the customer flocks to it; it promises efficiencies in a woefully inefficient (and increasingly expensive) system, allowing for economies of scale at minimum; it expands the opportunities for quality education; it may well provide a better (instructional) product.

Who then is to answer the questions? It is not a technological question, not a faculty one. It is an institutional issue as it sketches out an all-encompassing strategic direction for the institution, to be addressed by the president and provost, with faculty input and board approval. Not an easy path.

Bowen tells of "a lively discussion regarding the biggest challenges for the further development of MOOCs. [The other participant] was naturally focused on technical issues, which are of course real and challenging. Fortunately, lots of big brains are focused on them. But I have come to believe, more and more strongly, that the effective adoption of online pedagogies is going to require new thinking about decision-making in academia and about the role of faculty. In my view, the organizational and decision-making challenges are at least as daunting as—maybe more daunting than—the purely technical challenges" [6].

As Barber et al. state it: "Each university needs to be clear which niches or market segments it wants to serve and how. The traditional multipurpose university with a combination of a range of degrees and a modestly effective research program has had its day. The traditional university is being unbundled. Some will need to specialize in teaching alone—and move away from the traditional lecture to the multi-faced teaching possibilities now available: the elite university; the mass university; the niche university; the local university; the lifelong learning mechanism" [7].

Certainly there are multiple sub-issues here, but each institution will have to decide whether to play in the new age (I know of several small, elite private liberal arts colleges who will maintain their model of intimate personal learning) and at what level—whether to be a content producer or consumer and of which courses/programs (critically an institutional, not departmental decision). And the time to answer these institutional questions? Now, even with incomplete

information. Many schools are establishing their "brand" already. An institution cannot allow itself to be swept along (away?) by the tsunami—or avalanche.

I am on the side of those who see a great wave not just coming, but here. Case in point: As the MOOC Spring continues apace, the *New York Times* reports 10 large public university systems are forming partnerships with one of the MOOC providers to create courses that students can take for credit [8]; and, simultaneously, some new faculty resistance is reported, this time at Harvard. This tension will continue, as will waves of disruptive development. This online symposium is being overtaken by events—in such rapid fashion our comments may well be old hat by the time they are published. Just this week, as I am finishing this piece, there is another MOOC report in the *New York Times* this time trumpeting failure—and on the front page no less [9].

Wrong answers, missteps and even failures are to be expected. One has to rebuild after a tsunami and it takes courage to face the challenges and both resources and time to accommodate it all. Nonetheless, this has been a MOOC Spring and the revolutionaries are at the gates. Let's join them by addressing these questions in real-time, engaging our institutions in crafting appropriate responses.

References

[1] Kaminer, A. Yale Names Insider, Peter Salovey, Its New President. *The New York Times*. November 8, 2012.

[2] Auletta, K. Get Rich U. *The New Yorker*. April 20, 2012.

[3] LeBlanc, P. J. Thinking About Accreditation in a Rapidly Changing World. *EDUCAUSE Review* 48, 2 (March/April 2013).

[4] Heller, N. Laptop U. *The New Yorker*. May 20, 2013.

[5] Online Learning and the Future of Residential Education. March 3-4, 2013, http://onlinelearningsummit.org.

[6] Bowen, W. G. The Potential for Online Learning: Promises and Pitfalls. *EDUCAUSE Review* 48, 5 (September/October 2013).

[7] Barber, M., Donnelly, K., and Rizvi, S. An Avalanche is Coming: Higher education and the revolution ahead. Institute for Public Policy Research. March 2013.

[8] Lewin, T. Universities Team With Online Course Provider. *The New York Times*. May 30, 2013.

[9] Lewin, T. After Setbacks, Online Courses are Rethought. *The New York Times*. December 11, 2013.

About the Author

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