The Next Game Changer: The Historical Antecedents of the MOOC Movement in Education

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Tags

MOOCs, Bell-Lancaster, educational change, disruptive movements

Though the history of massive open online courses is very short, scholars can gain insights by looking at similar movements in the past. This paper examines several historical moments in education to develop an understanding of MOOCs and their future. Specifically, this paper explores two developments that resemble the discourse surrounding MOOCs—the emergence of *studia* particulare and generale in medieval Europe and the monitorial educational systems of the early nineteenth century. It also looks at several other educational innovations that have been seen as disruptive to the status quo of education. These include land-grant institutions in the United States in addition to the University Without Walls and open education movements of the 1960s and 1970s. These previous movements are very instructive as proponents of MOOC educational systems develop strategies for promoting MOOCs and giving them lasting resonance in the digital age.

1. Introduction

The history of massive open online courses (MOOC) is very short in absolute terms. The concept has proximate origins in the open education and eLearning movements of the late twentieth century. The first MOOC in the recognizable form of today was a course entitled "Connectivism and Connective Knowledge" which was offered by the University of Manitoba (Mackness, Mak & Williams, 2010). In the intervening five years, MOOCs have come to be seen in a variety of different ways. Some see them as a chance to finally make good on the promises of open education and education for all (Watters, 2012). Other see them as a game changer that will eventually put third tier universities out of business (Barber, Donnelly, & Rizvi, 2013). Still others see them as a threat that must be neutralized to maintain the status quo of education in a globalized world (Vardi, 2012).

In this paper, I will take a longer view of the principles that underpin the MOOC movement. As with many new movements, some of these principles recall those championed by educational reformers in the past. Some of these reforms came and went quickly and have nearly been forgotten. Others have substantively changed the way that educational practices play out today. As the MOOC—both a medium of instruction and a philosophy of collaboration—gains even more attention from the educational community and popular media, it is important to understand its historical antecedents.

2. Historical Antedecents of MOOCs

As with any innovative change to educational policy or practice, massive open online courses are rooted in the past. The ideas upon which MOOCs are based are myriad, but I would like to highlight two of the historical precedents for this kind of educational system. These

are the original *studia generale* of medieval Europe and the monitorial systems developed independently by Dr. Andrew Bell and Joseph Lancaster in the early nineteenth century.

A close examination of both of these moments in educational history can be helpful as scholars look for the roots of the MOOC movement and attempt to ascertain its staying power.

The *Studium particulare* and the *Studium Generale*

The forerunners of today's Western universities parallel the current MOOC movement in many interesting ways. Though eight centuries have changed the *studia* of medieval Europe in ways that render them almost unrecognizable, they offer valuable insights in a discussion of modern MOOCs. The *studia* themselves have antecedents that lie in the ancient system of tutelage used for the education of the wealthy elite in classical Europe (Pedersen, 1997). Individuals who had gained enough knowledge to be recognized as masters were sought out by those who had a desire to learn. These masters and students were able to work autonomously to develop their knowledge and understanding of the *trivium*—those subjects dealing with humanity—and the *quadrivium*—those dealing with the natural world (Gupta, 2008).

The *studia* of medieval Europe are notable for the way that learning was facilitated among students. There was no central university administration that controlled admission, matriculation, and commencement. Rather masters who had earned a reputation as scholars and teachers were able to attract students were able to make a living in the field of higher education (Bhattacharya, 2012). First these students were drawn from local communities—in *studia particulare*—and later students came from across Europe for instruction—in *studia generale*. Over time, more and more regulations began to be imposed on the *studia* as the church and local princes became involved in matters of education. These were not simply extensions of church schools or other religious institutions. These were innovative ways for students to go through the process of acquiring knowledge with a master who they believed could guide them through the the seven liberal arts of the *trivium* and *quadrivium*.

MOOCs and *studia*. The similarities between a medieval studium and a modern MOOC are quite striking. The early *studium particulare* saw a master and a student coming together to facilitate learning on an individual autonomous level (Moodie, 2007). There was no regulation or examination to make sure

that a student had achieved a certain level of knowledge that was recognizable elsewhere. In the same way, modern MOOCs do not derive their attractiveness from a universally recognized qualification. These educational settings are loose-knit structures of scholars, students, the interested, and the curious who want to learn something for the sake of the experience (Crook, 2012). Students in MOOCs seem to be mirroring their medieval counterparts—they find a master who has demonstrated her or his ability to teach and they go to that master for the facilitation of learning. In the case of many MOOCs, including those with overall structures, administrations, and start-up capital, the only proof that students have of completion and competency is the word of the teacher in the form of a certificate. This sort of arrangement definitely has a precedent that was set in the medieval world.

The Monitorial School

The other antecedent that I think is instructive to consider is the monitorial, or mutual instruction, school. These institutions are a relic of the early nineteenth century and were the result of increased attempts to provide education for all with little or no increase in costs. Monitorial schools of this period are often described as using the Bell-Lancaster Method of instruction. This name comes from Dr. Andrew Bell and Joseph Lancaster who both came up with similar systems independently. As can be expected from the name, the basis of these schools was an encouragement of students to teach each other. Bell declared quite certainly that "there is a faculty, inherent in the mind, of conveying and receiving mutual instruction" between students (Bell, 1823, p. 16). The Bell-Lancaster System was based on the principle that students could be and would be effective teachers of their peers. Those implementing this system believed that they could comfortably accommodate hundreds of students with only one master teacher. This was perfect for the education of the urban poor of London that Lancaster tried to reach and the masses of Indian colonial subjects that inspired Bell (Kurtze, 1995).

Key to the Bell-Lancaster system were the pedagogical considerations of the buildings in which instruction was to take place. Lancaster had exacting specifications as to how his school buildings should be constructed and arranged. Students were to be placed in rows at long tables that could seat ten or more students. At the end of each of these was a monitor—an older student who was identified by the master as ones that could facilitate the learning of the younger or less advanced students

(Vera, 1999). These monitors conferred with the teacher before the lessons began to prepare and gain some understanding of the day's pedagogical goals. This system was very regimented and teachers were expected to closely follow a scripted sequence of lessons (Linne, 2001). Likewise, students were expected to respond instantly to the monosyllabic instructions of their teacher or their monitors. This included orders to enter the room such as "in!" and other instructions of pedagogical import such as "hands out!" "clean slates!" and "write!" (Lancaster, 1821). Though there were some pedagogical differences between the models proposed by Bell and Lancaster, they were often taken together as a single entity. Especially in the newly independent nations of Latin America, these educational reform movements were adopted with great enthusiasm (Caruso, 2005; Vera, 2005).

MOOCs and monitorial schools

As with the medieval *studia*, there is much to be learned about modern MOOCs by looking at these historical antecedents provided by Bell and Lancaster. I would classify these connections as ones of openness, technology, and cooperation. These practitioners saw monitorial schooling as a way to open up education to the downtrodden masses of the world. Indeed, Lancaster even suggested that his portrait be placed in monitorial schools built to his specifications with the caption "the patron of education and the friend of the poor" (Kurtze, 1995). This was certainly not the last attempt to provide education for all (Enoch, 2012; Matsuura, 2002). In the same way, the MOOC movement is seen as a new model for opening education to those that have previously been denied opportunities to learn. MOOCS have been described as "heavily steeped in the discourse of openness" (McAuley, Stewart, Siemens, & Cormier, 2010, p. 46). Many of its strongest advocates look to MOOCs as a way to bring education to more and more people and in this way, MOOCs can be seen as a continuation of the dreams of Bell, Lancaster, and so many others.

Lancaster also advocated certain specific structural and technological improvements to classrooms to make it possible to teach using his method. The buildings were meticulously described in his many promotional pamphlets and provided exacting specifications as to the ventilation, acoustics, and sight lines in his school houses. (Kurtze, 1995). The rise of MOOCs in the last few years has come about as a result of technological advances in the digital age. Indeed, the first course to take the MOOC form that we recognize today was one that focused on digital connectivity and connective knowledge—the very

principles that make MOOCs possible. Without the technological innovations of the last twenty years, it would be impossible to envisage a system of instruction such as the MOOC (Fini, 2009)

Finally the modern MOOCs and the monitorial education system of Bell and Lancaster share mutual goals of broad student cooperation. In the monitorial schools, this was a cooperation that was facilitated by the top-down administration of the classroom. Beginning with the "monitors of order" or "general monitors" that sat on either side of the teacher at the head of the classroom, and moving down through the class monitors, students were expected to teach each other (Kurtze, 1995). At Udacity, one of the major players in the emerging MOOC market, the realities mirror the monitorial system to a great extent. The teaching in this setting consists of watching a series of video lectures and answering practice questions. If help is required, students are not generally able to seek assistance from the professor that is teaching the class. With a student population of hundreds or thousands, this would be impractical if not impossible. Instead, students are encouraged to get help from each other via an online forum. Though this sort of online community of practice can certainly help individuals to develop the skills that they need, it is not a formal setting with sound pedagogical practices in place (Boven, Forthcoming).

These qualities make it clear that the monitorial Bell-Lancaster system is a fitting model for thinking about the development of MOOCs at the beginning of the twenty first century. Of course, it is important to remember that the monitorial system of instruction was very short lived. It is viewed as something of a false start in the quest to make education available for all (Tschurenev, 2008) and only lasted beyond the early nineteenth century in a few Latin American iterations (Caruso, 2007). With the advent of the common school movement in the United States and the Glasgow system in the United Kingdom, there was no room for the mass produced monitorially-trained students of Bell and Lancaster. Of course, this does not mean that MOOCs will face the same fate. For reasons that I will discuss later, MOOCs have an advantage over the monitorial schools of the nineteenth century.

3. Game Changers in Higher Education

In the history of higher education, there have been many innovations that have been heralded as ground breaking changes to pedagogical practice. Beginning with the development of the medieval *studia* and moving through more recent initiatives

such as the University Without Walls. In common with MOOCs, these were all designed to increase the availability of higher education. At their inception, some commentators believed that they would fundamentally change the way that higher education was administered. Though they certainly did improve access to education in many different ways, it is my contention that, for the most part, they were co-opted by and absorbed into the existing educational structures of the day. Though it is far to early to make such a prediction for the future of MOOCs, it is instructive to consider these previous "game changers" as we think about the ways that MOOCs may affect the educational landscape.

Beginning in the nineteenth century, concurrently with the Bell-Lancaster push for mass education, the world of higher education experienced a call for an expansion of secular education. In the United Kingdom, philosophers such as Jeremy Bentham believed that the traditional religious training of Oxford and Cambridge should be opened up to all without regard to religion (Schofield, 2012). Similar processes of secularization were begun in other parts of Europe. In the Netherlands, this happened even earlier as new municipal universities were established at the beginnings of the seventeenth century (Wingens, 1998). Even outside of Europe, there were individuals advocating for the expansion and secularization of education at the primary, secondary, and tertiary level (Besant, 1984). At the outset, these were seen as disruptive policies for the educational establishment. Some fear that the increase of educational opportunity based on merit rather than social standing, religious affiliation, or wealth would bring about the end of higher education as it was understood at the time (Moreo, 1971). In the end, the secularization of higher education—in addition to primary and secondary education—did help to increase opportunities for more people. It did not bring about the end of the institutions that felt threatened. Rather these institutions co-opted the new ideas and incorporated them into their own practices. The former bastions of religious instruction at Oxford and Cambridge are now completely secular government-funded institutions of higher learning.

In a similar way, the Morrill Land-Grant Acts of 1862 and 1890 attempted to change the landscape of higher education in the United States. These acts were designed to provide grants of land to the states in order to fund higher education institutions for the instruction of agricultural and mechanical skills and military tactics. There were voices of dissent that worried that the concentration of funds in the agricultural schools of

the Western states would weaken the monopoly on higher education of the private colleges and universities of the Eastern states. As in the case of educational secularization, these fears were unfounded and some of the hopes of making education open to all were dashed. The privatization of higher education has continued in the United States as these institutions have been co-opted by the existing educational system (Lyall & Sell, 2006). It is not merely coincidental that one of the universities in America's Ivy League is a land-grant college.

Returning to the United States for a final example of this trend of co-option and cooperation, one can look at the University Without Walls movement of the 1960s and 1970s. These were the similar to the open education movement that culminated in the foundation of institutions like The Open University in the United Kingdom. Again, the focus of the movement was providing educational opportunity to the marginalized and unschooled masses of the developed world (Littlefield, Robison, Engelbrecht, Gonzalez, & Hutcheson, 2002). Though these institutions have had varying degrees of success over the last 50 years, there are several cases of universities that were founded "without walls" that have now become standard public universities. Again, the existing system has simply accommodated these new players in the game of higher education without succumbing to the predicted earth-shattering changes.

The MOOC phenomenon is certainly something that warrants attention both from the open learning community and from the existing educational establishment. An analysis of the histories recounted above makes it clear that a novel educational advancement has the potential to change the educational landscape completely. In the past, these major advancements have either fizzled because they were not as revolutionary as originally thought, or been co-opted by the educational powers that be. Since MOOCs are so new and have been the subject of such little research, it is difficult to say exactly how their story will play out. The *studia* of medieval Europe laid the foundation for educational structure in the Western world today. In the same way, the principles of Bell and Lancaster presaged a world in which education was seen as something attainable even by the poor and oppressed of society. It remains to be seen whether MOOCs will be seen as the turning point in open educational opportunities for higher education.

4. The Future of MOOCs and Universities

In all three of the described historical cases—and, no doubt, myriad others—there was an expectation of some great sea change in the way that universities operate. In the current climate, some commentators are making the same claims about the future of MOOCs. They see the massive open course as a way to make education available for all without being beholden to the interests of the current higher education system. They see this as a low-cost, meritocratic way to educate many people who have previously been left out of the educational system. It is, of course, too early to say what the future of MOOCs will be. It is important for those interested in the development of MOOCs—both those in favor of them and those opposed to them—to understand that similar changes have been predicted in the past and have come to little. For policy-makers, this provides a model of action. Those who fear the iconoclastic nature of MOOCs can develop strategies for co-opting them. Indeed, several top private and public universities have signed on to the Coursera MOOC in what seems to be an effort to reduce its impact. Likewise, those that hope MOOCs will make good on the promise of opening education to all would be wise to look to the past for models of how to avoid this co-option by the educational community.

It seems that the similarity between MOOCs and the monitorial learning systems of Bell and Lancaster are the most instructive as the future of digital, open education is considered. Monitorial learning was not the major disruptive force in education that its authors hoped it would be. They believed that a system which allowed one master to educate hundreds of pupils would change the world and make learning something that anyone could aspire to. Today, some commentators see a system that allows one master to reach thousands of students as the next great step in this process. Since the monitorial experiment was so short-lived, I think it will be very helpful for those who support massive, open, online learning to heed some warnings from the Bell-Lancaster model.

The Locus of Control

In the monitorial system of instruction, control rested completely in the hands of the teacher. This one master educator was the supreme authority on all matters of curriculum, discipline, and interaction. Teachers today—especially in the MOOC movement—are often seen as facilitators who are assisting students as they attempt to reach their educational goals. In the Bell-Lancaster model, the goal of the teacher was to fill students' heads with knowledge and provide them with the information that they needed. The choice of what information was needed was, of course, left to the teacher.

One of the distinguishing characteristics of the modern MOOC is the power given to students. Enrollment is open to all and the incentive for the student to be there is totally intrinsic. Students control how much time they will spend on their studies and they control what they want to learn. This seems to be one of the fundamental differences between the failed monitorial method of the early nineteenth century and the burgeoning MOOC movement of the early twentieth century. Assuming that this trajectory of student control continues, this may be one of the differences that causes MOOCs to succeed as a force for opening education to all where Bell and Lancaster failed.

Educational Freedom

The second major difference between the monitorial system of the past and the massive open online courses of the present is the idea of educational freedom. Bell and Lancaster were supported the adoption of their teaching methods by municipal and public schools around the world. This transnational educational movement was quickly adopted by official educational authorities as a way to increase the pupils on their rolls without a commensurate increase in costs. This left the educational authorities in the position of dictating to the masters what would be taught. The control of curriculum was removed one more level from the students who would actually be doing the learning.

At present, today's MOOCs are not bound by any existing structures of educational authority. As they stand today, they are completely outside of the existing educational structure. As the proponents of MOOCs move to increase their prestige and develop methods of accountability, they may submit themselves willingly to the educational authorities in the world. Unfortunately, it seems that this would deprive them of one of their fundamental qualities. This deprivation may be catastrophic to the place of MOOCs in the world of education. It is not the place of an educational historian to predict the course of future events, but it certainly seems feasible to postulate that the future of the MOOC as an institution depends on maintaining student control and educational freedom.

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