# Higher Education Finally Enters the Information Age

As ironic as it may sound, higher education has been resistant to the forces of the Information Age. In fact, there are few industries that have changed as little over the past century. Even as they graduate skilled computer science majors, develop advanced technologies, and publish huge quantities of research material on the subject, colleges and universities have been hesitant to adopt the productivity enhancing potential of the Internet and mobile computing when it comes to their core competency—teaching. However, with the arrival of Massive Open Online Courses (MOOCs), change is being forced upon them. MOOCs are a course of study made available free online and able to accommodate very large numbers of people. Their development has sparked a contentious debate within academia unlike any seen before. Proponents argue that MOOCs have the potential to revolutionize the education system. They contend that MOOCs can increase access, minimize costs, and make the act of learning a more productive experience. Critics, on the other hand, argue that MOOCs are a passing fad and cannot provide the engaged and enriching experience of a traditional university education, and that the spread of MOOCs would be disastrous for students and professors alike. While MOOCs are still in their infancy and their precise role is yet to be determined, it is almost unquestionable that MOOCs are here to stay and higher education will forever be changed because of them.

Proponents, in their fervor to push MOOCs into the mainstream, emphasize the fact that more people are in need of a higher level of education than ever before, and that the marketplace demand for an educated workforce will only continue to increase. They also charge the present system with saddling a generation of students with an untenable amount of student debt. Able to accommodate thousands of students in each course at little or no expense, MOOCs look to be the perfect solution to these problems. Existing realities, however, make MOOCs less attractive than

they at first appear. The prevailing expectation of employers is that applicants possess a college degree. The fact that MOOCs do not provide a recognizable credential is a primary weakness. As well, while the hard sciences like mathematics, physics, and computer science easily lend themselves to an online format, the soft sciences and humanities do not. As the much cited and debated *New Yorker* article *Laptop U* argues, “Evaluating student performance on massive scales can be harder when you’re teaching qualitative material” (Heller 80). While MOOC providers search for ways to overcome these obstacles, their critics voice their own list of arguments.

Those who oppose the spread of MOOCs use their perceived poor performance as proof that MOOCs are an inadequate replacement for courses taught at an accredited university. For instance, a study from the University of Pennsylvania Graduate School “found that (only) 4 percent of the one million users of Penn's MOOCs completed the courses” (Klawe). However, it is arguable that there is a huge difference between having paid to take mandatory courses within a chosen curriculum with the purpose of pursuing a degree and an impulse click on the web with only one’s own determination to learn a subject as motivation to complete the course. Further, as the director of the Education Policy Program at the New America Foundation, a nonprofit public policy institute, points out, by comparing the number of students who completed these courses with those of a classroom setting, the researchers could just as well have reported that “MOOCs achieve ten-fold increase in course completers for Ivy League class, at zero cost to students” (qtd. in Carey). In any case, the tone and nature of most opposing articles makes it clear that the central issue for critics is the potential threat to careers. As an associate professor of politics at Ursinus College revealed, in an article relating his experiences taking a MOOC course, when he questioned whether the “college credit monopoly” was the only thing protecting his job from encroachment by free MOOC courses (Marks). However, in spite of the prevalent glory or doom

posturing surrounding the topic, a more realistic picture of cooperation is beginning to emerge.

Even with 260,000 college graduates earning minimum wage and 36 percent working jobs that don't require a degree, possessing a college degree is still preferable to not having one and being confined to a shrinking, low-pay sector of the market (Leef). Thus, getting a degree today seems less about pursuing the carrot as it is about avoiding the stick. With such real world dilemmas facing prospective students, the demand for low cost solutions to gaining an education is high. As such, a partnership between universities, providing accreditation, and MOOCs, satisfying financial needs, seems to be the obvious answer. Increasingly there are positive signs of this happening. "Following a trial run at San José State University, ...eleven schools in the California State University system moved to incorporate MOOCs into their curricula" (Heller 80). As well, at least seven universities have heeded the American Council on Education's recommendation to give college credit for several select MOOC courses (Bonvillian and Singer 24). Further, lawmakers are beginning to pressure state-funded universities to give credit for MOOC courses, as seen by California passing just such legislation and the governor of Florida issuing a challenge, with 23 state colleges agreeing, to offer low-cost online bachelor's degrees (Bonvillian and Singer 24). As these examples illustrate, change is indeed happening. But it is not only universities that are being affected. MOOCs are having to make concessions as well.

Although free and open access are basic hallmarks of the traditional MOOC, the courses offered for college credit, according to a Columbia University study of MOOCs, while at some basic level may be offered free, are likely to be revenue-generating services (Hollands and Tirthali 168). As with Georgia Tech's recent unveiling of a three-year master's degree in computer science offered through Udacity, one of the largest providers of MOOCs. While the program is not open or free, every applicant who meets the minimum requirements is accepted

and the cost is only $6,600 compared to the university's $44,000 residential program (Belkin A7). In addition, MOOCs are partnering with businesses as well. Udacity's recent "NanoDegree" is a credential that, as an AT&T spokesperson explained, "is designed by business for the specific skills that are needed in business" (Porter B1(L)). Google, AT&T, and other companies are working with Udacity to create additional NanoDegrees and universities should take note of this development (Porter B1(L)). In the progression from high school to career, NanoDegrees look to be an attempt to bypass universities altogether. In fact, just as Pamela Tate, president and CEO of the Council for Adult and Experiential Learning, ponders the question, "For how long will college credits even be the primary measurement of learning?" (qtd. in Jackson 245), so too should universities be actively and purposefully examining its implications.

The doors have been thrust open and developments have almost guaranteed MOOCs a growing place in meeting students' higher education needs. As technology continues to advance and new learning systems are created, universities will have to adapt or be left behind. As an article in the National Academy of Sciences' journal *Issues in Science and Technology* asserts, "It is now well accepted that new firms embracing new technologies can disrupt and eventually displace legacy firms" (Bonvillian and Singer 26). The inherent warning in this statement should be apparent. If universities don't take heed and if they don't, in fact, lead the way, there are others who are more than willing to step in and fill the position. Simply put, universities need to accept MOOCs as a legitimate education alternative and incorporate them into their curricula.

# Works Cited

Belkin, Douglas. “First-Of-Its-Kind Online Master’s Draws Wave of Applicants.” *Wall Street Journal* 30 Oct. 2014: A.7. *SIRS Issues Researcher*. Web. 26 June 2014.

Bonvillian, William B. and Susan R. Singer. "The Online Challenge to Higher Education." *Issues in Science and Technology* 29.4 (2013): 23+. *ProQuest Central*. Web. 5 July 2014.

Carey, Kevin. “Pay No Attention to Supposedly Low MOOC Completion Rates.” *EdCentral*. New America Foundation, 12 Dec. 2013. Web. 6 July 2014.

Heller, Nathan. "Laptop U. Has the Future of College Moved Online?" *The New Yorker* 20 May 2013: 80. *General OneFile*. Web. 27 June 2014.

Hollands, Fiona and Devayani Tirthali. “MOOCs: Expectations and Reality.” *Center for Benefit-Cost Studies of Education*. CBCSE, May 2014: 168+. Web. 4 July 2014.

Jackson, Robert L. "The Rise of MOOCs." *Academic Questions* 26.2 (2013): 244+. *Academic OneFile*. Web. 3 July 2014.

Klawe, Maria. “The Evolving MOOC.” *EDUCAUSE Review*. EDUCAUSE, 24 Mar. 2014. Web. 4 July 2014.

Leef, George. “College Degrees Aren't Becoming More Valuable.” *Forbes/Opinion*. Forbes, 21 May 2014. Web. 28 June 2014.

Marks, Jonathan. “Who’s Afraid of the Big Bad Disruption?” *Inside Higher Ed*. Inside Higher Ed, 5 Oct. 2012. Web. 28 June 2014.

Porter, Eduardo. "A Smart Way to Skip College." *New York Times* 18 June 2014: B1(L). *General OneFile*. Web. 6 July 2014.