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## **Are You MOOC-ing Yet? A Review for Academic Libraries**

Gloria Creed-Dikeogu  
Ottawa University  
Ottawa, Kansas

Carolyn Clark  
Baker University  
Baldwin City, Kansas

### **Abstract**

What is a MOOC? What should librarians know about MOOCs? This article introduces librarians to Massive Open Online Courses by discussing the historical development, key structure and features that make them a unique teaching platform, and some of the potential opportunities for librarian participation.

## **Introduction**

MOOC is the acronym for Massive Open Online Course. MOOCs are defined as:

An online phenomenon gathering momentum over the past two years or so, a MOOC integrates the connectivity of social networking, the facilitation of an acknowledged expert in a field of study, and a collection of freely accessible online resources. Perhaps most importantly, however, a MOOC builds on the active engagement of several hundred to several thousand “students” who self-organize their participation according to learning goals, prior knowledge and skills, and common interests. Although it may share in some of the conventions of an ordinary course, such as a predefined timeline and weekly topics for consideration, a MOOC generally carries no fees, no prerequisites other than Internet access and interest, no predefined expectations for participation, and no formal accreditation (McAuley, Stewart, Siemens, & Cormier, 2010, p. 4).

Colleges and universities are excited about the potential of MOOCs to reach students. Recently there have been a number of news articles published with headlines like “‘Campus Tsunami,’ ‘Instruction for Masses Knocks Down Campus Walls,’ and ‘College May Never Be the Same’...” (Synder, 2012, para 1) in the Chronicle of Higher Education announcing news about MOOCs; however, not all post-secondary schools have MOOCs. Currently it is mostly Ivy League and top tier universities in the United States and abroad that offer MOOCs (Tschofen & Mackness, 2012). Nonetheless, this situation is about to change as other types of institutions of higher learning are developing and planning to offer MOOCs. On November 13, 2012, the Bill and Melinda Gates Foundation awarded grants to a number of public universities and community colleges that are in the process of developing MOOCs (Gates Foundation, n.d.). As such, academic libraries from all types of post-secondary schools need to learn about MOOCs and prepare to take an active role in this new teaching platform. In an effort to help librarians learn the basics about MOOCs, this paper focuses on the historical development of MOOCs, key structure and features that make them a unique teaching platform, and some of the potential opportunities for librarian participation in MOOCs.

## **MOOC History**

In short, the history of the MOOC can be traced back to a Proto-MOOC which was created at Utah State University in 2007 by David Wiley (Pisutova, 2012), but it was not until 2008 that Dave Cormier of the University of Prince Edward Island coined the term MOOC. Cormier used the term to describe an open course created by George Siemens and Steven Downes offered to 25 students at the University of Manitoba that was also open for public enrollment (Mehaffy 2012). Siemens and Downes envisioned “MOOCs as an environment for enacting connectivist pedagogy, an approach to teaching focused on building networks between participants, based on, but moving rapidly beyond, a foundation of shared content” (Mahraj, 2012, p. 360), and making use of social networking tools to further student interaction and collaboration.

MOOCs began to gain popularity with the creation of the PLENK2010 (Kop, 2011) and DS 106 courses that were taught by Jim Groom and Michael Branson, and reached the pinnacle of its popularity when, in 2011, two courses taught by Stanford University professors, Sebastian Thrun and Peter Norvig, the founders of Udacity, enrolled 90,000 and 160,000 students, respectively (Mehaffy, 2012). Since then several college professors, like Daphne Koller and Andrew Ng, who formerly taught at Ivy League universities and several large universities have started to collaborate in MOOC creation or to set up their own MOOC technology providers, such as edX, Khan Academy, Coursera, MITx and Udacity (Mahraj, 2012).

## **MOOC Structure and Features**

MOOCs offer students the chance to take courses from celebrated specialist presenters, without any required course prerequisites. They are presented over a set length of time, just as regular classes are, and follow a set syllabus. Students are provided videotaped lectures accompanied by weekly homework problem sets, online resources, online reading lists, practice questions, midterms and finals; however,

there are no predefined participation expectations, and students may complete as little or as much of the course as they wish and at their own pace (Martin, 2012). MOOC course organization differs depending on the presenter and the university offering it. For example, some course presenters may offer virtual office hours for student consultation, along with online discussion forums, while others only offer discussion forums and no direct access to the course presenters. Coursera presenters, for example, use the flipped classroom approach, providing recorded web lectures along with hands-on course activities, since they claim their mission is to “give everyone access to the world-class education” that would “empower people...to improve their lives, the lives of their families and the communities they live in” (Byerly, 2012, para. 7).

Kop, Fournier, and Hill (2011) describes all MOOCs as having four similar types of activity: aggregation, where access is provided to a wide variety of reading, video and web resources in the course; remixing, where after using resources in the course, that content is then reused in another format, in a blog, or in discussion board postings elsewhere; repurposing, where “participants were encouraged to create something of their own” (p.79) and feeding forward, where “participants are encouraged to share their work with other people in the course and with the world at large” (p.79).

DeWaard et al. (2011) suggests there are four phenomena common to all MOOCs: internal diversity, internal redundancy, neighbor interactions and decentralized control. An additional commonality is, how through connectivism, “knowledge is distributed across a network of connections” so that “learning consists of the” learner’s “ability to construct and traverse those networks”(Mahraj, 2012, p. 361). When it comes to internal diversity and redundancy, MOOC students are very diverse when it comes to age, gender and dispersion across the globe. They interact by using a common language (even though not all learners are native English speakers) and are “willing to share ideas” about their common interest in the MOOC. When it comes to neighbor interactions, it was found that in order for the MOOC format to work for global learners (neighbor interactions), these “must interact with one another” and share “ideas, hunches, queries...in the hope that these interactions will trigger other insights” since “knowledge is social in nature and constructed through a process of collaboration, interaction and communication among learners in social settings” (DeWaard et al., 2011, p.104). When it comes to decentralized control, it was found that with most MOOCs, there was a centralized coordinator or facilitator, but in the end, “participants could...put forward discussion topics that were then taken up by others” and “this then happened as a result of decentralized authority and the fact that participants were in control of their own learning” (DeWaard et al., 2011, p. 105).

## **MOOC Problems**

MOOCs are not an educational panacea. One major problem is MOOC professors often grade papers using digital auto-graders, meaning that all assignments submitted in these classes would have to be multiple choice. This means students never have the opportunity to write lengthy papers on topics discussed in their MOOC. Students also cannot build relationships with the professors or get in-depth feedback about their educational progress. Mahraj (2012) also emphasizes this problem by stating “many MOOC’s replicate lecture-based “sage on the stage” instruction and lack effective instructional design”(p.363); suggesting the loss of face to face interaction that is necessary for most lecture type classes to be successful; and the need for more MOOCs to follow instructional design best practices so that they would “enable dialogue, creativity, collaboration, mastery and problem-solving on a global scale” (p. 363) between participants and instructors.

MOOCs often provide student message board access during their classes, but since message board participation is not mandated in MOOCs, students who do not participate in message board activities may not have the opportunity to interact with their peers about any of the course content. This is particularly problematic because peer-interaction in the online classroom setting is vitally important to student learning.

## Potential Opportunities for Librarian Involvement

Academic librarians should expect to become involved in the MOOCs their institutions offer or are planning to offer. For the most part, librarians can expect to take on roles that are similar to those they have with traditional courses. Two of these roles are handling copyright issues and teaching information literacy (Mahraj, 2012).

According to an Association of Research Libraries *Issue Brief*, librarians are involved in MOOC-related copyright issues including the “[u]se of copyrighted works in instructional materials such as online lectures or modules (the equivalent of traditional classroom teaching); assignment of copyrighted works for outside reading (the equivalent of assigned texts and course reserves)....” (Butler, 2012, p. 3). Academic librarians are used to assisting their institutions with copyright law and may feel comfortable with their knowledge in this area. However, applying copyright law to MOOCs will most likely be a challenge. The problem is that copyright law does not address the unique structure and features of MOOCs, so permissible uses of materials in a traditional class might constitute an infringement in a MOOC. The use of copyrighted materials in a MOOC does not fall neatly within the descriptions of fair use exemptions (Butler, 2012). Ergo, there are a number of gray areas, meaning that academic librarians should work closely with their institutions’ legal counsel to make sure materials are being used in a way that complies with copyright law and are being used appropriately. Butler (2012) reports that the “[c]ampus counsel for one library has advised that fair use is not an option in the context of MOOCs.” (Butler, 2012, p. 2).

The difficulty associated with copyright law provides librarians with the opportunity to encourage the use of materials in the public domain or subject to open licenses such as Creative Commons licenses. (Butler, 2012) As with fair use, librarians need to be careful. It is crucial they read license agreements even if they are “open licenses” to make sure use in a MOOC is permitted. The bottom line is that librarians must carefully review the proper and legal use of each and every resource used in a MOOC to make sure there is not a license agreement violation or copyright infringement.

In addition to helping their institutions properly use resources, academic librarians should be involved in teaching and promoting information literacy skills to students taking MOOCs (Mahraj, 2012). Students in MOOCs must have strong information literacy skills as connectivism, the theory of learning utilized in MOOCs, “...stresses that two important skills that contribute to learning are the ability to seek out current information, and to the ability to filter secondary and extraneous information.” (Kop & Hill, 2008 p. 2). Furthermore, connectivism “...puts the responsibility of information gathering, the validation of sources, and the learning process in the hands of the learning....” (Kop, Fourtier, & Mak, 2012, p. 75). Many students do not have the ability to handle this responsibility without assistance and instruction in information literacy. Academic librarians know from years of interacting and teaching students that most students need instruction in, at the very least, the basics of finding, evaluating and using information. Mahraj (2012) suggests academic librarians can teach/coach MOOC students by scanning student blog posts to find where students are having problems evaluating sources and then providing comments to the posts. Considering the huge numbers of students who enroll in a MOOC, following Mahraj’s suggestion could take an extraordinary amount of time and effort. More efficient ways to reach students enrolled in a MOOC could be modeling appropriate citation (Mahraj, 2012), providing information literacy skills self-assessment tools, and creating online information literacy tutorials. Regardless of the teaching method chosen, MOOCs offer the opportunity to increase the information literacy skills of huge numbers of students.

## Conclusion

If the number of MOOCs offered by colleges and universities continues to grow, academic librarians need to be prepared to be involved and supportive in both the development and implementation phases. MOOCs are a new platform for providing education. As such, they have some aspects that look like traditional courses and some that are significantly different. Regardless, students need to access quality sources of information and will need instruction in finding, evaluating, and using information. Most likely, academic libraries will be involved in making sure these information resources are provided as they support their institution, faculty, and students who are involved in MOOCs.

## References

- Bill and Melinda Gates Foundation (n.d.). Massive Online Open Courses (MOOCS). Retrieved from <http://www.gatesfoundation.org/postsecondaryeducation/pages/massive-open-online-courses.aspx>
- Butler, B. (2012, October 22). Massive open online courses: Legal and policy issues for research libraries (Issue Brief). Association of Research Libraries. Retrieved from <http://www.arl.org/bm~doc/issuebrief-mooc-22oct12.pdf>
- Byerly, A. (2012, November 7). Before you jump on the bandwagon. *The Chronicle of Higher Education*, 59(2). Retrieved from the Education Research Complete Database in EBSCOhost.
- Dawson, C. (November 1, 2012). Canvas network: Infrastructure takes on Coursera, et al with a unique approach to MOOCS. *ZDNet Education*. Retrieved from <http://www.zdnet.com/canvas-network-structure-takes-on-coursera-et-al-with-a-unique-approach-to-moocs-700006733/>
- DeWaard, I; Abaljian, S; Gallagher, M.S.; Hogue, R; Keskin, N; Apostolos, K.& Rodriguez, O.C. (2011, November). Using mLearning and MOOCs to understand chaos, emergence and complexity in education. *The International Review of Research in Open and Distance Learning*, 12(7), 95-112. Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/1046/2043>
- Kop, R. (2011, March 1). The challenges to connectivist learning on open online networks: learning experiences during a massive open online course. *The International Review of Research in Open and Distance Learning, Special Issue: Connectivism: Design and Delivery of Social Networked Learning*, 12(3). Retrieved from <http://nparc.cisti-icist.nrc-cnrc.gc.ca/npsi/ctrl?action=rtoc&an=18150443&lang-en>
- Kop, R., Fournier, H., & Mak, J. (2011). A pedagogy of abundance or a pedagogy to support human beings? Participant support on massive open online courses. *The International Review of Research in Open & Distance Learning*, 12(7), 74-93. Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/1041/2025>
- Kop, R., & Hill, A. (2008). Connectivism: Learning theory of the future or vestige of the past? *The International Review of Research in Open and Distance Learning*, 9(3). Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/523/1137>
- Mehaffy, G.L. (2012, September/October). Challenge and Change. *Educase Review*, 47(5). Retrieved from [http://online.tarleton.edu/fdi/Documents/EDUCAUSE\\_Mehaffy.pdf](http://online.tarleton.edu/fdi/Documents/EDUCAUSE_Mehaffy.pdf)
- Mahraj, K. (2012). Using information expertise to enhance massive open online courses. *Public Services Quarterly*, 8, 360-368.
- Martin, F. G. (2012). Education: will massive open online courses change how we teach? *Communications of the ACM*, 55(8), 26-28. Retrieved from [http://delivery.acm.org/10.1145/2250000/2240246/p26-martin.pdf?ip=198.248.71.31&acc=OPEN&CFID=249109216&CFTOKEN=53942087&acm=1357675558\\_255bf26cff7d434b47220e8c03554d4a](http://delivery.acm.org/10.1145/2250000/2240246/p26-martin.pdf?ip=198.248.71.31&acc=OPEN&CFID=249109216&CFTOKEN=53942087&acm=1357675558_255bf26cff7d434b47220e8c03554d4a)
- McAuley, A., Stewart, B., Siemens, G., & Cormier, D. (2010). The MOOC model for digital practice. *SSHRC Knowledge Synthesis Grant on the Digital Economy*. Retrieved from [http://www.edukwest.com/wp-content/uploads/2011/07/MOOC\\_Final.pdf](http://www.edukwest.com/wp-content/uploads/2011/07/MOOC_Final.pdf)
- Pisutova, K. (2012). Open Education. *ICETA 2012: 10<sup>th</sup> IEEE International Conference on Emerging eLearning Technologies and applications, November 8-9, 2012, Stara Lesna, Slovakia*. Retrieved from [http://www.iceta.sk/proceedings/Iceta2012\\_Pisutova.pdf](http://www.iceta.sk/proceedings/Iceta2012_Pisutova.pdf)
- Synder, M. D. (Nov/Dec. 2012). Much ado and MOOCs. *Academe* 98(6), p. 55. Retrieved from Academic Search Premier Database in EBSCOHost.
- Tschofen, C. & Mackness, J. (2012). Connectivism and dimensions of individual experience. *The International Review of Research in Open and Distance Learning*, 13(1), 124-143. Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/1143/2086>

Gloria Creed-Dikeogu is the Library Director at Ottawa University, Ottawa, Kansas.

Carolyn Clark is the Instruction Librarian at Baker University, Baldwin City, Kansas.