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Massive Open Online Course (MOOC): A Paradigm Shift for Library and Information Services in Nigeria

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Abstract

Online distance learning has often been used for studies where learning occurs through computer-mediated collaboration and interactions between people. While online distance learning environments have been around for many years, they have experienced various changes and adoption styles for various purposes. Massive Open Online Courses (MOOCs) are probably the most recent form of online distance learning, which have been established to offer open, flexible form of online education, and allow almost anyone to enroll and learn. One of the most significant features of MOOCs is that it is built or designed to allow learners build and structure their own schedules and learning goals, common interests, prior knowledge and skills. MOOCs companies offer college credit for the courses, which means they could become a viable alternative for earning undergraduate degrees. Therefore libraries and librarians can play a central role in providing access to the full range of digital resources, to faculty and students in any environment, including MOOCs; librarians can help by modeling correct citation practices, providing information literacy assessment tools, and creating online information literacy tutorials thereby increasing the prominence of digital resources for teaching.

Keywords: MOOCs, Libraries, Library and Information Service, Higher Education

1.1 Introduction

Developments in technology have brought about changes in the way higher education is delivered and communicated over a period of time. First, it was the distance education which brought in changes to the delivery model of higher education by making it possible for learners with required qualification to learn without formally attending the classes using the course material

delivered at their doorsteps. In recent years, e-learning took over higher institutions and became the means for course content delivery to students. With the emergence of internet and web 2.0, online learning has become the order of the day, which is giving multiple options for students to learn. Adding to this, the year 2012 saw a new model of delivery of higher education over the Internet from world's prestigious Universities which is

creating a kind of revolution and people in hordes are joining these courses. These are referred to as Massive Open Online Courses (MOOCs). Although MOOCs make up a very small percentage of higher education offerings, their appearance has sparked lively conversation around fundamental topics including teaching, access, learning outcomes, credentialing, cost, learning communities, and more. While skeptics may wonder whether MOOCs are just another educational fad, many scholars such as McAulay et al. (2010) and Clarà (2013) argue they are a disruptive force that will lead to significant change in higher education.

2.1 Literature Review

2.2 Overview of Massive Open Online Courses (MOOCs)

There are many different definitions of MOOCs because every letter in MOOC is negotiable and as such they are potentially ill defined. According to EDUCAUSE (2013) MOOCs is seen as a model of educational delivery that is, to varying degrees, massive (no limit on enrolment), open (optional admission requirements and usually no tuition), online, and a course with defined curriculum leading to an award of a completion certificate. European Commission (2014), sees it as an online course open to anyone without restrictions (free of charge and without a limit to attendance), usually structured around a set of learning goals in an area of study. It often runs over a specific period of time (with a beginning and end date) on an online platform allowing interactive possibilities (between peers or between students and instructors) that facilitate the creation of a learning community. OpenupED (2015) define MOOCs as courses designed for large numbers of participants that can be accessed by anyone anywhere as long as they have an internet connection, open to everyone without

entry qualifications, and offer a full/complete course experience online for free.

From the definitions, MOOCs involves classes which are larger than typical college class 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, MOOCs take place online. They could be affiliated with a university, but not necessarily. MOOCs generally carry no fees, no prerequisites other than Internet access. However, in practice, "MOOCs" differ in many ways. For instance, MOOCs vary in size and in their degree of openness. MOOCs can range from a few hundred students to thousands (Downes 2011). Some MOOCs are completely open, whereas others limit enrollments (Fain, 2013). Most MOOCs are not offered for college credit; however, there are recent trends to offer college credit for the successful completion of certain MOOCs (Coursera, 2014). While some MOOCs intentionally place often famous instructors at the center of the learning experience (sometimes called cMOOCs), other MOOCs focus more on the learners and the connections they can make with others, sometimes called xMOOCs (Kilgore & Lowenthal, 2014). The major MOOC providers, so far, are Coursera, EdX, and Udacity. Courses are taught by faculty from established colleges and universities usually fairly high-ranking and select ones. Coursera, a for-profit entity, is by far the most prolific, with 341 classes (Coursera, 2014). Udacity offers 22, mostly in STEM disciplines, while EdX, a not-for-profit, is currently accepting sign-ups for 32. In addition, individual colleges offer MOOCs of their own (Nickerson, 2015).

Two main strands of MOOCs are identified based on the pedagogy adapted in them. cMOOCs or connectivist MOOCs and

xMOOCs or “MOOC as eXtension of something else” (Downes, 2013). While cMOOCs takes a connectivist approach with co-construction of knowledge as an integral part of the course, xMOOCs (such as Artificial Intelligence Stanford like courses) take a more cognitive-behaviourist approach with more individualist learning (Rodriguez 2012). MOOCs are open online courses that generally allow anyone to register and follow the course without a fee (at least for the basic course). Cormier and Siemens (2010) argued that they are “a potential by product of open teaching and learning”. The level of openness in MOOCs differs from course to course and if the course is offered on a MOOCs platform, depending on the platform. While many cMOOCs offered its content using open licensing, other MOOC providers only provide the content for personal use. For example, the licensing agreement of Coursera, one of the leading xMOOC platforms, states that the material is “only for your own personal, non-commercial use. You may not otherwise copy, reproduce, retransmit, distribute, publish, commercially exploit or otherwise transfer any material, nor may you modify or create derivatives works of the material” (Coursera, 2014). However, in a recent report commissioned by the Higher Education Academy, Bayne and Ross (2014) argue that due to the multiple pedagogic forms adopted in MOOCs, the broad-brush descriptions of MOOC pedagogy in terms of a cMOOC/xMOOC binary are no longer representative or particularly useful. They propose thinking about MOOC pedagogy at “micro level of individual course design”.

One of the most significant features of MOOC is that it is built or designed to allow learners build and structure their own schedules and learning goals, common interests, prior knowledge and skills. According to Nickerson (2015) MOOCs began to gain public recognition as an

alternative to traditional higher education and online classes around 2012 and are still gaining popularity, in part due to two new trends: first, MOOCs are being developed for high school students; and second, there has been a push by MOOC companies to offer college credit for them, which means they could become a viable alternative for earning undergraduate degrees. Therefore libraries which have a code of ethics demanding that they provide accurate, unbiased, and uncensored information should step in to provide these services before for-profit companies have a disproportionate chance to shape the next generation of high-school graduates and baccalaureate-earners. Hence our discussion of MOOCs will focus mainly on assessing the position of the library in providing information service to enable this platform live up to the purpose for which it emerged in the field of 21st century education.

2.3 Libraries and Librarians Support for MOOCs

The unique function of libraries according to Rynänen (1999) is to acquire, organize, offer for use and preserve publicly available material irrespective of the form in which it is packaged (print, cassette, CD-ROM, network form) in such a way that, when it is needed, it can be found and put to use. No other institution carries out this long-term, systematic work. Libraries are especially important now when the whole idea of education is stressing more and more on independent learning and acting. Libraries can and should support open education. It fits with librarians' professional support for access to information as a public good, the institutional mandate of academic libraries to support teaching and research, and the professional obligations of librarians in public libraries to support continuing education.

The new paradigms that arise from e-learning and MOOCs necessitated new ways

of organizing most activities in higher education including librarianship. Even though MOOCs are still relatively new phenomenon, and has a teeming population, in what ways can the library participate in MOOCs so as to dissuade the notion students are having that libraries are no longer a necessary part of education? Librarians should start carving out roles to support students enrolled in MOOCs or instructors who are teaching MOOCs. Schwartz (2013) noted that librarians should take a course on MOOCs in order to understand the experiences of learning through MOOCs. She added that it will help them to realize nuances attached with this new medium of online education.

Similarly, Wright (2013) added that Librarians should start with simple support solutions like reaching out to MOOC professors to provide links to library research guides and open-access research tutorials, such as those published by the American Library Association (ALA) or the Multimedia Education Resource for Learning and Online Teaching (MERLOT). Wright's ideas have the advantage of not requiring time-intensive labor and avoiding copyright issues. Creed-Dikeogu & Clark (2013) sees MOOCs as an “opportunity to increase the information literacy skills of huge numbers of students” at once. Therefore they suggest that librarians help by modeling correct citation practices, providing information literacy assessment tools, and creating online information literacy tutorials. Also Shank (2013) as cited in Clobridge (2013) observed that one critical function we need to be able to provide is offering access to digital resources of *all* kinds, in *all* formats not just videos or digital journals, but images, data sets, simulations, video games, and so on... MOOCs are increasing the prominence of digital resources for teaching. Librarians can play a central role in providing access to the full range of digital resources, to faculty and

students in any environment, including MOOCs.

The library on the other hand can support faculties and their MOOCs presentations, giving consideration to the type of information literacy learning materials and guidance that are made available to MOOC learners would be beneficial, not only to support student retention on the MOOC, but also to reduce any potential impact on library services from MOOC enquirers. Also by taking a holistic approach, libraries can aid the movement to facilitate universal, affordable, quality education for the peoples of the world and ensure that institutions, faculty, funding agencies, and governments avoid pathways to open education that might prove detrimental to scholarship as well as to society as a whole. Hoover (2013) as cited in Clobridge (2013) suggests that libraries can support by helping faculty in identifying or collecting Open Access, public domain, or other freely-available materials to use as course readings or supplementary materials. Other possibilities Hoover suggests that scale well include creating screen casts, videos, or other instructional content to teach students: how to use WorldCat to find something at a local library, how to get census data, how to search the Directory of Open Access Journals (DOAJ), what is an institutional repository, or how to find primary source documents in a digital archive.

Also Becker (2013) suggests that libraries can support MOOC students by beginning to develop a collection of recommended open-access journals and scholarly websites that can be accessed from all over the world Becker recommends that libraries set up self-service resources specifically for MOOC students, including a page of frequently asked questions and tutorials. However, he also suggests albeit not very enthusiastically that libraries create a joint email account for soliciting and

answering questions from MOOC students to avoid putting the brunt of the effort of supporting MOOC students on any one librarian. Where possible, Butler (2012) suggests that libraries should also work to help faculty identify and locate alternative materials that are free of copyright constraints either because they are in the public domain or because they are made available under Creative Commons or analogous open licenses. On the other hand, Pujar, Kamat & Savadatti (2013) noted that collaboration with different types of libraries such as public, academic and special libraries may help libraries to learn from each other's experience in extending support for MOOCs. They added that it can be accomplished by sharing information through dedicated discussion forum or through other existing professional forum.

3.1 Challenges of implementing effective information services in MOOCs

MOOCs give libraries new opportunities to help shape the conversation about changes in higher education and to guide administrators, faculty, and students in this platform through their unique information services. To assume this role, the libraries and librarians are faced with unprecedented challenges and barriers to creating universal access to their resources which range from:

- Institutional barriers;
- Legal barriers
- Distance barriers,
- Resource barriers (Barnes, 2013).

3.2 Institutional barriers

Institutional barriers are related to the desire of potential patrons/users and academic libraries to interact and the ability of the users to navigate library resources despite classification practices, collection bias, and low technical skills. Becker, (2013), is of the

view that the most important institutional barriers are twofold: first, few members of the public use or understand the purpose of academic libraries; and second, academic libraries do not necessarily welcome outside users. He further stated that the problem is that few members of the public see no reason to visit a library and although most academic libraries allow some use by outside patrons, they are not always particularly welcoming and their resources can be difficult for the uninitiated to navigate.

3.3 Legal Barriers

This is specifically related to copyright laws and licensing on digital materials. There is no denying that MOOCs are big but the issues surrounding copyright and licensing are even bigger. According to Butler, (2012), there are a number of legal issues that librarians and MOOC creators will need to be aware of which are stated below:

- Copyright status of the MOOC and the course materials within it;
- Licensing of content to be made available within the MOOC;
- Copyright status of learner-created content;
- Access to wider reading content for MOOC learners;

In a traditional classroom setting, it is has been possible for tutors to use copyrighted content as part of their curriculum, without the need for payment or permission as long as the copy has been made lawfully and is presented in a face-to-face setting under the provision of fair use (Butler 2012) but most libraries that want to lend out e-books currently license rather than purchase them, which means that they must abide by publishers' restrictions on lending thereby constituting hindrances to easy access and utilization of information resources.

3.4 Distance barriers

One of the main barriers to creating access to library resources in MOOCs in the work of Hoffman, Donna and Thomas (1998) is distance. He stated that many potential patrons, especially those in rural areas or developing countries, do not live near academic libraries and do not have the means to travel to one. Even for potential patrons who live close to an academic library, that library may not have the materials that the patron want or need. Distance barriers equally involves the time required for interlibrary loan, the difficulty for some potential patrons entailed in obtaining consistent internet access, the lack of availability of older materials as e-books, and the cost of digitizing library resources by the libraries themselves.

3.5 Resource Barriers

Economic downturn has made it more difficult to obtain grant funding from both private and government organizations. In the words of Bennett (2005:93), “libraries are already experiencing such extreme budget cuts that some of them have implemented or are considering implementing a fee to provide services to patrons not affiliated with the parent organization to make more resources available to the patrons”. Even if these fees are charged only on a cost-recovery basis, they discourage outside patrons from seeking library services, and the potential patrons who are already under-privileged i to access scholarship are the most likely unable to afford it.

3.2 Strategies for implementing effective information services in MOOCs

In the light of the goal of using MOOCs to uplift people and the historical library values everyone should have access to scholarship through the resources and services of libraries. It is clear from the preceding discussions that libraries have a significant

stake in the way their parent and partner institutions approach the MOOC phenomenon. However, before this can occur, libraries must work to address the challenges outlined above. According to Becker (2013), breaking down institutional barriers will require a four-step process: first, research libraries must realize that it is important to cater to outside users. Second, they must conduct outreach programmes not just to potential patrons, to convince them of the value of using research libraries, but also to diverse potential users of the library. Creed-Dikeogu, Gloria and Carolyn (2013), are of the view that librarians must cultivate awareness of the needs of outside users and seek to assist them as much as possible, because they may lack the technical skills necessary to navigate library resources due to limited education or lack of familiarity with information technology.

Most of the possible ways to overcome distance barriers in the work of McAuley, Stewart and Cormier (2013), involves digital solutions. They went further to buttress that digitization on demand shows promise as a way to provide access to potential patrons despite distance barriers. Even if a potential patron does not live close to a research library, he or she may live close enough to another library to pick up interlibrary loan books there. Hoffman, Donna and Thomas, (1998) are of the opinion that many of the possible solutions to the problem of distance as a barrier to universal access to library materials rely on the internet as a faster mode of delivery and for academic libraries to be truly able to provide fast, universal access to potential patrons, the issue of effective and efficient internet connectivity must be addressed. Addressing the issues bordering on legal barriers, researchers are of the view that the growing open access movement is an attempt on the part of scholars and libraries to reclaim control of their work and offer it to a broader audience (Bia, Rafael

and Jaime, 2010).

Open access publishing allows scholars to provide free online access to their work, usually with minimal copyright and licensing restrictions. Open access is excellent for allowing members of the general public to view research that they previously would have had to obtain from an academic library. Anderson, (2002) is of the view that as the open access movement matures, we must continue to fight for a digital first sale doctrine which states that once a person purchases a copyrighted work, he or she has the right to sell and, by extension, to lend that work without the permission of the copyright owner, as long as no copies of the work are made. The first sale doctrine has its roots in English common law of the sixteenth century, which prohibited restrictions on the use or resale of property that had been transferred to a new owner. It is important that librarians advocate for digital first sale as a means to improving access to scholarship for everyone, traditional and non-traditional users alike. To truly implement universal access to research library materials and services, Brooks (2010) posited that it will be necessary to work on fundraising skills and seek new sources for major gifts to enable the library procures more resources and infrastructures need for effective and efficient information services in MOOCs.

Conclusion

Although MOOCs are new, they have triggered a great deal of innovation in the field of higher education, have made higher education available to students who otherwise would not have access to it thereby bringing a paradigm shift in the services of libraries and librarians as hitherto seen in traditional setting. Although there are many obstacles to the ethical goal of academic libraries providing universal access to information, they are not insurmountable. If academic libraries are willing to accept outsiders as

patrons, to reach out to them, and to nurture diversity in the information professions as a method of reducing illiteracy, barriers to information access can be overcome.

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