

MOOCs and LIS education: A massive opportunity or challenge

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Massive Open Online Courses (MOOCs) are revolutionizing the field of higher education by giving a new learning opportunity for aspiring students, faculty and universities in many subject areas including Library and Information Science (LIS). In this paper, an attempt has been made to explain the concept of MOOCs, key players in the field, courses offered in LIS and how best this new medium can be used in improving the quality of LIS education by listing out possible areas of work and its impact on LIS education in developing countries.

Keywords: MOOCs; LIS education; Online courses

Introduction

Technological developments have brought in tremendous changes in a way the 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 requisite qualification to learn without formally attending the classes using the course material delivered at their door steps. In recent years, E-learning has gripped the campuses of higher learning institutes and it has become a '*mantra*' for the delivery of course contents to students. Now, with the emergence of Internet and Web 2.0, online learning has become 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 for these courses. These are referred as "Massive Open Online Courses" or in short "MOOCs", which are creating waves and earning praise for making available world class education to anyone, who otherwise would not have access to courses offered by these organizations. Even though there are concerns that these may bring in disruption and diminish the quality of on campus education, MOOCs may redefine the concept of higher education by giving a new learning opportunity for aspiring students, faculty and universities.

The impact of these developments can be seen in various subject disciplines including that of Library and Information Science. Library and information science education has undergone tremendous changes over a period of time and now it is experiencing its toughest challenge to make its wards employable and sustainable in the knowledge driven economy. The present Internet era expects librarians to have multiple skill levels including that of Information and Communication Technology (ICT). It is difficult for any library school to provide the kind of education and training on all segments of modern librarianship. This is true particularly in developing countries as they face certain challenges such as shortage of teachers, funds, skill levels, availability of resources and infrastructure. Here MOOCs may play a pivotal role in the delivery of LIS education and training and may also bring in opportunities for schools to collaborate, run and offer credits for the courses. With this backdrop, the paper gives background information regarding MOOCs, key players in the field, courses offered in LIS, areas in which MOOCs may help LIS schools in improving the quality of LIS education and their impact on LIS education in the developing countries.

What is MOOC?

"**Massive Open Online Course (MOOC)** is a model for delivering learning content online over the Internet to virtually any person who wish to take the

course at no cost with no limit on attendance².” In other words, “it is an online platform aiming at large-scale interactive participation and open access via the web. In addition to traditional course materials such as videos, readings, and problem sets, MOOCs provide interactive user forums, quizzes that help build a community for the students, professors, and teaching assistants (TAs) ³.” Typically they do not offer academic credit or charge tuition fees, but are massive in nature.

MOOCs tend to differ from face to face education offered in physical classrooms to a limited number of learners of a certain age attached to an educational institute/university at a particular geographic location. Here, the education is offered online over the Internet to an unlimited number of interested learners located at different geographic locations at no cost without any bar on age of enrollment thus widening the reach of the courses.

Key players offering MOOCs

The term MOOCs gained momentum in fall of 2011, when Stanford University offered three of its engineering courses viz. Artificial Intelligence, Machine learning and Introduction to databases for free on the Internet. This resulted in massive enrollment, which surpassed the imagination of developers of these courses. It resulted in series of initiatives from renowned faculty members of prestigious universities in the development of platforms for offering free open online education to the masses. Among the many initiatives, notable ones, which have taken lead in offering MOOCs in different disciplines, include Udacity, Coursera and Edx.

Udacity (<http://www.udacity.com>) was born in January 2012 owing to the efforts of Sebastian Thurn, a computer scientist along with two of his colleagues David Stevens and Michael Sokolsky by raising funds through venture capital⁴. Udacity follows a policy of developing its courses in-house, working with education specialists to make the pedagogy as effective as possible. At present it is offering 33 courses, majority in Computer science followed by Mathematics, Psychology and Business.

In April 2012, **Coursera** (<http://www.coursera.org>), biggest among all initiatives, was established by Daphne Koller and Andrew Ng, Computer scientists from Stanford established it in April 2012 as for-profit company by raising funds through venture capital⁴. Coursera, instead of developing courses in-house, it has partnered with elite universities on

revenue sharing model to provide content while it offers hosting and software platform. Today, its partnership stands at 108 universities and institutes from USA, Europe and Asia-Pacific offering 568 courses in various disciplines viz. Natural Sciences, Social Sciences, Technology and Humanities, thus making it one of the biggest initiatives. Recently, in order to provide access to high-quality content and resources to enrolled students free of charge it has piloted a programme with top publishers⁶.

Edx (<http://www.edx.org>), even though it was initiated in December 2011 by Anant Agrawal as MITx, it became Edx in May 2012, when Harvard university joined this initiative. It has been funded by both MIT and Harvard. At present its consortium consist of 32 top universities from USA, Europe and Asia offering 126 courses in the areas of Computer science, Natural Sciences, Health Sciences and few areas of Business and economics, Philosophy and Humanities. IIT Bombay from India has recently signed up with Edx to offer some of its courses.

Apart from these, there are many more MOOC platforms are in the offing, to name a few futurelearn (<http://www.futurelearn.com>), novaed (<http://novoed.com>), OpenEd (<http://www.openuped.eu>) etc. Most of these initiatives issue only course completion certificates and transfer of credits is done by few for a fee.

MOOCs in Library and Information Science

The MOOCs like in other areas have made a beginning in Library and Information Science [LIS]. A course on ‘New Librarianship’ (<http://ischool.syr.edu/future/grad/newlibopencourse.aspx>) from iSchool, Syracuse University was offered in July – August, 2013. It continues to be available for self learning. During the fall of 2013, Michael Stephens from SJSU ran a course on ‘Hyperlinked Library’ (<http://slisweb.sjsu.edu/programs/moocs/hyperlinked-library-mooc>) in Sept, 2013. During the same time, a course on ‘Metadata’ (<https://www.coursera.org/course/metadata>) through ‘Coursera’ platform was offered by Jeffrey Pomerantz from North Carolina University, Chapel Hill. Now, from Feb 24, 2014 a course on ‘Library Advocacy Unshushed: Values, evidence, action’ is being offered on Edx platform by Wendy Newman from University of Toronto (<https://www.edx.org/course/university-torontox/university-torontox-la101x-library-1335>). This shows there is a scope to run such courses in LIS and interest among library professionals and students in taking MOOCs.

This has certainly brought in cheers, which will help students, teachers and working librarians to learn new skills or improve existing ones to attune themselves to be current in the present Internet era. This also gives an opportunity for them to learn different courses from prestigious universities. According to Stephens⁷ the experiment on MOOCs will help to produce “a professional development model for librarians that is open and free and becomes a community of learners coming from library schools and jobs”. More may be seen in the coming years, wherein good number of library schools jump in to the bandwagon of MOOCs offering their courses free for all, thus bringing diversity in courses and reducing the burden of fees to be paid to schools or universities.

Possible areas in which MOOCs may help in improving the quality of LIS Education

Choice based Courses

MOOCs undoubtedly bring in multiple options for students to learn. Like in other fields, they may help learners in LIS in choosing courses from different universities as per their choice, thus bringing in diversity to their learning. This will give an opportunity for students to learn different courses from multiple universities and schools. It corresponds with Choice based Credit System (CBCS) in higher education offered in few countries.

Collaboration in building courses

Collaboration in developing courses with different library schools and organizations can be achieved through MOOCs. It is often found that most of the schools in a particular geographic area offer similar type of courses. Many a times, some of the schools find it difficult to offer certain courses owing to shortage of faculty or set skill levels. In such situations, MOOCs give an opportunity for schools to collaborate each other in developing courses. This will not only help in sharing expertise, but also gives an opportunity for students to learn from best teachers irrespective of geographical location.

Running a MOOC

To get to know what exactly a MOOC is and how it works, it would be good idea for schools to run a MOOC, by learning from other MOOCs which are readily available on the Internet. This will give firsthand experience for faculty members in knowing different facets of this new medium of delivery of

higher education. Schools or departments in LIS may encourage members of faculty to make use of readily available platforms such as Course sites (<http://www.coursesites.com>) or Edx Mooc (<http://www.mooc.org>) to run a MOOC and informing students to enroll for the course. This will give a chance to experiment and adopt MOOCs for running a few courses, which will benefit students and even faculty members hailing from different LIS schools/universities. It will also give an opportunity for teacher to reach out to maximum number of students; otherwise teacher's lectures would be limited to those students who undergo admission in the specified course during teachers' tenure of service.

Local support and evaluation

Students, who enroll for MOOCs require local support in learning and understanding topics. It is impossible for MOOC providers or teachers involved in teaching such courses to offer one-to-one assistance. Library schools may encourage students to take up MOOCs offered in LIS and certain relevant computer courses by other schools or universities and provide local assistance in completing these courses by providing the required infrastructure. Schools may even undertake the evaluation work in order to assist a school or university, which is offering these courses to assess the learning outcome of students. They may restrict to undertake this work only for collaborative schools/departments.

Flipped Classrooms

LIS schools may adopt MOOCs for certain courses in a flipped classroom environment⁸, wherein students will take MOOCs of other university and teachers will provide assistance in discussions, preparing assignments and conducting practical's within the classroom setup. This will give an advantage for both, as students get an opportunity to learn from prestigious universities and teachers to make better use of their time. It may not also require schools to take approvals from authorities as this will not lead to altering of an existing course taught in the school.

Continuing education

The technological developments have greatly impacted libraries and its resources, which is forcing working librarians and teachers in LIS to brush up their skills to attune themselves to be current in the present Internet era. MOOCs have greater role here in

harnessing the continuing education requirements of library fraternity. LIS schools may adopt or offer some of the MOOCs to educate the working librarians and teachers, which go a long way in improving the skill levels thus resulting in improved teaching and effective library services. It will also help in filling the intellectual gap between the schools owing to dearth of suitable trainers.

MOOCs Impact on LIS education in developing countries

The professionals and students from developing countries would immensely get benefitted from such initiatives as quality education in many such countries is still a dream. As they are all set to encompass the developing world, it may bring in an opportunity for learners, but by the same time it may be a threat to weaker schools as students may prefer to enroll for online courses than to physical ones. However, this may also work as an opportunity for schools, wherein they may introduce flipped classroom setup to improve the delivery of education. This may help in improving the student's enrollment to courses and bring in new ideas to a classroom.

In addition to the above, it may help to create a group of enthusiastic learners, who are willing to take courses without the desire to earn formal degree, but just to increase their knowledgebase. It may also give a chance for retired and talented professionals (including teachers) to independently develop lectures and offer courses online. For example a retired Professor (or Librarian) may share his wealth of knowledge and experience through MOOCs sitting from the comforts of his home encashing on brand equity and may also earn some extra money⁹. This may to some extent offset the dearth of good teachers in certain subjects or fill the vacuum in understaffed schools, which is often cited as a reason for students not getting quality education.

At this initial stage of MOOCs development, it is very difficult to predict the exact effect on traditional system of LIS education, but some of the following implications would certainly benefit the learners from developing countries.

- Low or no tuition fees for courses
- Collaboration with national and international library schools
- Help in raising the profile of a teacher, school and university

- Option of selecting courses from different and elite schools / universities (Choice based courses)
- Enable Schools to deploy new technologies to establish open online courses

Conclusion

In spite of their disruptive nature, it is true that MOOCs will bring in an opportunity for librarianship in improving the LIS education and skills of library professionals. The present Internet era expects librarians to have multiple skill levels including that of ICT. It is very difficult for any library school to provide a kind of education and training on all segments of modern librarianship, it is true especially in the developing countries. Library schools in these countries face certain challenges such as shortage of teachers, funds, skill levels, availability of resources and infrastructure. MOOCs may certainly play a pivotal role in the areas discussed above to improve the quality of LIS education and training and may also bring in opportunities. In case it is not possible for LIS schools to accept these in totality, at least, they may be used to create a flipped classroom, where in the precious time of teachers may be used for meaningful conversations and undertaking practical work required for certain courses. We think to sustain in this new world of massive online learning, we agree with Bajaj⁹ that it is the time for teachers to switch over from their '*Sage on Stage*' or '*Guide by the Side*' avatar to be a rockstar teacher to showcase their teaching through video lectures and blended classroom cultures adopting quality video lectures from MOOCs to usher enriched learning experience to young learners.

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