MOOCS: AN EMERGING TEACHING STRATEGY

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Abstract

The Advent of MOOCS has been very well received by the Educational Institutions around the world. One of the major factors that drive this trend is the availability of digital access to almost all parts of the world and the availability of ICT Infrastructure in Schools. It is this paper's aim to provide an overview of the history, types of MOOCs and the certain factors that will help us see them supporting the present classroom practices.

Keywords : *MOOCs ,ICT , Spotify , OER etc.*

Introduction

The recent years have witnessed a transformation with the services getting available to all at minimal costs such as Google, Wikipedia, Youtube and Spotify to name a few. The online content and interaction is available to a wide global audience due to a significant increase in the access to internet and broadband. You name a field of your interest and you will be given long lists of technological advancements and latest innovations that stand tall making our lives easier and yet deliver the best of everything. In the area of Education, we see a new player stepping in, called Massive Open Online Courses (MOOCs) who originated from the principal of Openness and Accessibility of content. Although the Higher Education Institutions And Even High Schools are not complete strangers to the delivery of content via Open Educational Resources (OERs), Virtual Learning Environment etc., yet the promises claimed by MOOCs look very strong and long lasting.

Historical Background

Dave Cormier and Bryan Alexander introduced the term MOOC in 2008 in order to describe a particular model of online course developed by fellow Canadian academics Stephen Downes and George Siemens that was based upon Open Educational Resources movement. Downes and Siemens' course was based on connectivist principles and saw 2300 online

participants accessing the course for free, with 25 fee paying students of University of Mantoba. The students interacted through threaded discussions, blog posts, and synchronous online meetings .this was a small but decisive start for the MOOCs to slowly become one of the most evolved learning experiences for students all over the world.2011 saw Sebastian Thrun & Peter Norvig's course, 'Introduction to Artificial Intelligence' ,attracting about 160,000 students . These huge class numbers identified MOOCs as something different from the traditional model of delivering higher education content, whether on campus or via distance and flexible learning.

The thing that makes a MOOC to contrast with established university course delivery are:

1. Open access – anyone can participate in an online course for free.

2. Scalability – courses are designed to support an indefinite number of participants.

At present, some of the largest and most widely recognised MOOC platforms are:

1. **Coursera (https://www.coursera.org/)**. It was founded in 2012 by Stanford academics, Daphne Koller and Andrew Ng. Coursera is an educational enterprisw which is the largest MOOC platform in terms of University Partners (82), Courses (386) and Student Enrolments (over 3.5 million unique registrations).

2. **edX (https://www.edx.org/).** MIT launched its MITx platform in 2011, which was subsequently incorporated into a not for profit venture between MIT and Harvard, called edX. The consortium , as of now is having 28 members, including: MIT, Harvard, Berkeley, University of Texas System, Wellesley College, Georgetown, Australian National University, Ecole Polytechnique Fédérale de Lausanne, University of Toronto, RICE, TU Delft, and McGill. 63 courses are available and currently about a million students are enrolled.

3. **Udacity (https://www.udacity.com/).** Udacity was established by Sebastian Thrun in 2011 following his Stanford class MOOC experiment. It is an educational enterprise that works with individual academics as well as technology firms to develop technology and computer science-related courses. It currently offers 25 courses and has currently 400,000 users.

4. **FutureLearn(https://www.futurelearn.com/),Open2Study(https://www.open2study.com/) and Iversity(https://www.iversity.org/)** are MOOC platform spin offs from the UK's Open University, Open Universities Australia and a German educational respectively.

Types of MOOCs

On the basis of MOOC categories, based on different pedagogical emphases and organisational models, there are two types of MOOCs:

1. **cMOOCs**

   Kolowich(2013) ,states that cMOOCs are courses, 'based more closely on the original "connectivist" distributed peer learning model. Courses are typically developed and led by academics through open source web platforms. Examples include various courses exploring developing online educational practice, such as the original MOOC, 'Connectivism and Connective Knowledge.' In general, the design of cMOOC has been less favoured by the larger MOOC platforms, due to the level of Connectivist Pedagogical Knowledge that is needed in order to design and run a cMOOC.

2. **xMOOCs**

   xMOOC design is used on the large MOOC platforms and is based on a format of minimal, asynchronous support, with a subject expert recording content and planning assessment (i.e. multiple choice quizzes, programming assignments or peer-review exercises) for the student cohort to ingest at a time of their choosing. The aim of this design approach is to allow the platform to repeatedly run the same classes throughout the year on a rolling recruitment basis, with the best performing students from the previous cohort asked to act as community teaching assistants for the subsequent cohort – providing forum moderation.

MOOCs and Quality Considerations

MOOCs are a revolution to traditional concepts in Education. Whilst they draw on elements of existing educational and learning models, they represent a new approach to instruction and learning. The Enrolment being open and flexible, allows learners with diverse motivations and goals, to join the course and share the knowledge. The curriculum of MOOC being dynamic static and incorporates (both by design and through differing modes of learner engagement) a range of learning opportunities and pathways, which individual learners are able to self-select and independently navigate. This result in achievement no longer relating to a pre-established standard but rather being determined by individual learners in relation to their self-identified goals (DeBoer, Ho, Stump, & Breslow, 2014).

Designing and running a MOOC is a labour-intensive activity. Kolowich (2013) found that a MOOC typically takes over 100 hours of pre-course set-up time and then an additional ten hours per week during the running of the course. Ross et al. (2014) have argued for the importance of acknowledging the complexity of teacher positions and experiences in MOOCs

and how these influence learner engagement. Data suggest that the instructor has a significant impact on learner retention in MOOCs (Adamopoulos, 2013).

Further research suggests that instructors' participation in discussion forum activity and their active support of learners during the running of a MOOC positively influence learning outcomes (Coetzee, Lim, Fox, Hartman, & Hearst, 2011).

MOOCs in Classrooms

MOOCs offer an alternative to lecture-mode classroom instruction using digital content that can be downloaded (and re-downloaded) by students anytime, anywhere depending upon their convenience. This latter aspect is responsible for MOOCs being termed "online". The terms "open" and "massive", on the other hand, refer to the fact that any individual around the world may take courses of his/her choice (in most cases for free) and to the fact that open registration may result in thousands of students taking the course (in some courses registrations have gone beyond 150,000).

A traditionally taught class of about 40 minutes of daily duration could be broken into several 3 to 8 min media-rich (composition of text, graphics, voice and video) modules, helping a student understand a concept, a design, a result, an algorithm or the like.

In each module student responses to exercises could be (generally) evaluated by MOOC's back-end servers or platform in real-time using "Robo-grading" software, thus enabling students to attempt completing the exercises till they get it right.

Analysis of student activity, including downloads and performance on exercises, are available to the instructor to assess student engagement and performance with the courses. Tools for multiple students to collaborate and "study" together are also available. MOOC courses also allow for computer-based simulations (emulating lab-like experimentation), components so very essential to take course in sciences, engineering and medicine (and the like).

The Merits of MOOC technology in the class are as follows:

●Educator involvement: While educators are involved in the design and production of the MOOC, their involvement during the running of the course is minimised because of the lack of formal assessment or formal academic credit.

●Engagement: It is possible to engage with a large number of students via discussion forums.

● Re-watchable: Students are able to watch and re-watch lecture videos.

● Scale: MOOCs are designed to reach a large number of students.

●Assessable: Most MOOCs include in-video, concept-check questions, with immediate feedback, as well as peer review.

●<u>Customised learning experience</u>: Participants can learn at their own pace and choose which material they engage with.

Are MOOCs going to fit in the classrooms?

MOOCs will be a good supplement in the classroom teaching practices as the students will be finding a lot of means to get acquainted to a particular concept. For example, in Mathematics, the 3D dimensional shapes could be visualized easily with the help of Media content and hence the students would be able to correlate the various aspects of a Cube, Cone, Pyramid which are not possible on a 2 Dimensional Blackboard and in Sciences, they could see the scientific phenomenon in interactive manner also, that would help them understand the concepts rather than opting for mere rote learning. In the language subjects, the Audio-Visual Media would help the student to work on their pronunciation and communicational aspects especially in English, Sanskrit and other foreign languages offered by various Schools.

At the end of the Educators, the MOOCs would be beneficial to them too as they would be benefitted by the vide availability of resources that could be incorporated in the classrooms and hence make the classrooms more content-rich and lively. Also, they will be connected to other Educators working in the same area or another and can share their experiences, views and opinions over certain content and their appropriate delivery.

Conclusion

In the end, the MOOCs may not have several aspects of traditional teaching that could make them the ultimate teaching tool but could not be declined an opportunity to be the face of openness and collaboration in education. In the age of technological adventures, we must be brave enough to try out a new weapon, a weapon capable of changing the lives of masses, capable of transforming their dreams. With the advent of new generation of students in the classroom, it is required that the education system upgrades itself with the demands and does not become obsolete.

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