Massive open online courses and challenges in India

Rita Devi

Abstract
Massive Open Learning Course (MOOC) is an online course that mainly aimed at unlimited 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 that help build a community for students, teacher educators, and teaching assistants. MOOCs will provide free to access cutting edge courses to students of higher education in university system. Across the world, premier universities have put their courses online by setting up open learning platforms, such as EDX. Teachers to acquire competence of digital instruction and technologies in pedagogical consideration, teaching staff face a challenge of adapting to the MOOC the rapid expansion of MOOCs has sparked commercial interest from venture capitalists and major corporations who want to enter the Higher Education (HE) market using a MOOC approach. Students’ motivation to participate in MOOCs is a significant area of interest. Factors that influence students’ motivation to learn include future economic benefit, development of personal and professional identity, challenge and achievement, enjoyment and fun. In order to investigate the awareness, motivation, and effectiveness of Massive Open Online Courses (MOOCs) of EDX, Coursera, Udacity, and Udemy in the university system of India.

Keywords: Types of MOOCs, Present Expectations and Status, Challenges

Introduction
MOOCs arose under the precedents of education, education resources OER, open educational content and open online course (e-learning). A MOOC is an online course that can be accessed by anyone who has an internet connection. MOOCs depict open access global, free video based instructional content, audios. MOOCs are flexible in time and place. A massive wave of opportunity has knocked the door of formative education in the form of MOOCs which stands for Massive Open Online Courses. This revolutionary step towards providing versatile education has yielded some impressive results.

The term MOOC was derived in 2008 by Dave Cornier of the University of Prince Edward Island and Bryan Alexander of the National Institute for Technology in Liberal Education. MOOCs are of a very recent origin in distance education, started somewhere around mid of 2011. They are called ‘massive’ because they are available for the masses. These courses can be fully taken online aimed at unlimited participation and open access via the web initially, and the movement began in North America with its interests rapidly growing across the world. Proliferation of technology helps us to aid to the growing cost of traditional higher education as well as easy access to it.
A staggering fact by the UNESCO estimates a result which shows 80 million people seeking higher education using this new technology. Due to the constricted budgets of the governments across the world, amplification of MOOCs is most viable option. It is economically, socially, and politically new step towards curbing the up surging large number of students across the world. There are many types of MOOCs but two are major among those:

**Types of MOOCs**

- C-MOOCs
- X-MOOCs

(i) C-MOOCs—they are based on connectivism. It is a creation for emphasizing connecting learners called as connectives MOOC and build upon the idea and the platform originally visualized by George Siemens.

(ii) X-MOOCs—they have their background in the evolution of open coursework and open educational resources. X-MOOCs are generally offered by universities in collaboration with a commercial organization and company whose aim is to gain profit. X-MOOCs are online versions of traditional learning formats (lecture, instruction, discussion, etc.) on proprietary specialist software platforms owned by independent firms. They attribute monetary relationships between universities who create content, and technology providers, X indicates the MOOCs which are content-based and follow a more behaviourist approach. X emphasizes a more traditional learning approach through video presentations and short quizzes and testing and focuses on knowledge duplication. X-MOOCs are associated mostly with the three largest platform provider’s edX, Udacity, and Courser.

**MOOCs: The Global Scenario Massive Open Online Course**

Are the new pattern shift in the global scenario, with the help of MOOCs it has become easier to expand knowledge and information. MOOCs have transformed and impacted on the education of whole world and 2012 was known as the year of MOOCs. With the help of MOOCs, teachers, educators, professional researchers are also expanding their knowledge and improving their skills at the low cost. Various countries are taking initiatives for Massive Open Online Courses. Some examples of this style are:

- UK: Future Learn, USA: Coursera, edX, Udacity Australia Open2 Study China: XuetangX, Germany: Iversity India: SWAYAM, Japan: jMOOCs etc. These countries are offering certificate, diploma, bachelor and master degree programmes on their MOOCs platform.

**MOOCs in India**

Connecting, informing, composing and educating would be some of the referring words that would be suitable to add when we would talk about MOOCs in the near decade. MOOCs can be the next big thing. Already down the line it has been doing some great work impressive enough to influence people. India is the only economy to have such a rapid change and one leap ahead it can be by joining hands with the futuristic idea about the MOOCs education. The biggest problem of our country now is about how to make education available to the scanty villages spread all around the nation and the solution to this problem has been seen in the form of MOOCs education system. Birla Institute of Technology and Sciences (BITS) Pilani has collaborated with the MIT & Harvard’s MOOC platform edX to offer MOOCs to its own on-campus and off-campus students as well as students outside BITS.

**MOOCs Connecting Indian Institutions**

Online education company Coursera had also announced Coursera Learning Hubs which offered people physical spaces where they can access its MOOCs for free. In India, Coursera has alliance with Lady Sri Ram College (New Delhi), Learning Links Foundation and Bluebells Schools International (New Delhi). Such an initiative goes off well in India. IIT Kanpur in collaboration with Common Wealth of Learning (COL) also developed open source software named, mooKIT. The Indian Institutes of Technology (IITs) Chennai, Delhi, Guwahati, Kanpur, Kharagpur, Mumbai and Roorkee and the Indian Institute of Science Bangalore (IISc Bangalore) as a part of a project National Program on Technology Enhanced Learning (NPTEL) funded by the Ministry of Human Resource Development (MHRD) have joined hands to deliver MOOCs. NPTEL has also launched the NPTEL Online Certification (NOC) in collaboration with Google and National Association of Software and Services Companies (NASSCOM). It is equipped with two new courses at present, namely, ‘Introduction to Programming in C’, and ‘Electrical Circuits’. These courses are unpaid. India and USA are likely to enter into a partnership to launch MOOCs courses through an online platform named as Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM), a web portal that will offer online courses in heterogeneous subjects. It is expected that SWAYAM is going to use OpenEdx as its MOOCs platform. Video lectures of the American universities will be made available for the SWAYAM portal free so that Indian students can access them at nominal charges. Under this joint venture, the SWAYAM server will be placed in India while US universities will be welcomed to present academic programmes on the platform. The HRD ministry and the National Science Foundation (NSF), USA that promote science and research, are expected to initiate a programme called Global Initiative of Academic Networks (GIN) where faculty members from US institutions would deliver their time teaching in academic and research institutions across India.

**Future of MOOCs**

Future is a thought of probability and chance, and probability always has a risk of happening or not happening, same way it can be seen that MOOCs as a risk, that turnout to be an asset or a failure. There is no doubt that MOOCs have shown its scale of outcomes that have been hugely positive which needs to be thoroughly evaluated and regarded an.

The respective IITs will provide an optional certificate for them on the basis of the scores acquired in new platform named as Study Webs of Active-Learning for Young students (SWAYAM). SWAYAM is supposed to comprise three different courses. Among these three courses, two courses would be contributing from IIT Mumbai on ‘Introduction to Computer Programming’ and ‘Thermodynamics’ and one basic conceptual course from UC Berkeley’s on ‘Quantum Mechanics and Quantum
Computation’. SWAYAM is a most recent and a comprehensive initiative taken by the Government of India under ‘Digital India Mission’ The main objective to launch this platform is to serve the education at very large scale and to reach the unreached learners to satisfy their educational needs. University Grant Commission (UGC) in India has also notified in 2017 that MOOC courses are to be offered through SWAYAM.

Present Expectations and Status
MHRD, Government of India has initiated the ‘SWAYAM’ portal to digitalize the education system to reach the remote areas all over the India to achieve the objectives of education for all. It is designed to achieve the three cardinal principals of education policy access, equity and quality. The courses on SWAYAM are in four division.

E-tutorial: Animation, Video and Audio content in an organized form, Video Demonstration, Virtual Labs etc.

E-content: Text, e-Books, PDF, illustration, documents and Interactive simulations

Web resources: Open source Content on Internet Case Studies, e-books e- magazines, research papers and journals Articles etc.

Self-assessment: Problems and solutions which could be in the form of Multiple Choice Questions, short Answer Questions, Long Answer Questions Quizzes, Assignment and solutions.

Teacher Education on SWAYAM
MHRD has entrusted the responsibility to train around 14 Lakhs untrained elementary school teachers to NIOS through SWAYAM Platform. NIOS is offering 18 months D.E.L.Ed, programme for these untrained elementary teachers. CIET, NCERT is also offering a few courses of M.Ed. level programme in collaboration with University of Allahabad through E-PGPathshala.

Challenges for MOOC
Massive Open Online Course has gained the attention all over the world. India has also taken initiatives to implement MOOCS at a large scale, but still there are many challenges the implementation of MOOCS in India. There are some among those:

Low Awareness among Students
The MOOC is not new in India, we can trace the journey of MOOCs since 2003, but still the awareness among learners is very low regarding the MOOCS and its benefits. Shaikh (2017) \(^3\) conducted a study on student teacher of teacher training and found that the awareness about MOOCS among the learners is very low and even perceptions to MOOCS were mostly negative.

Diversified Needs of Learners
AS India has a lot of diversity, there are people who belong from various cultures and they speak different languages. India has 22 major regional languages. It is very difficult to offer the MOOCs in various languages.

Less Enrolment in Courses
In India some course the enrolment of learners is very less because they are not aware about the course. So there is a very need for digital marketing and Advertisement to attract the learners

High Dropout Rate
There is very high rate in MOOCS in all over the world. Without face to face interaction. It is very difficult to maintain the interest of students in long term courses.

Low Awareness among Teachers
After completing almost two years the official launch of SWAYAM portal in India, the awareness among teachers is still low Singh and Chauhan (2017) \(^4\) Conducted that an online survey on awareness about MOOCs on teacher educators. Data was collected from all over India and they found that teacher educators are having basic idea about MOOCS but they are not aware about the process, procedures and assessment strategies of MOOCS.

Lack of Resources in Institutions
To implement and offer to MOOCs resources are required, without resources and technology no one can access and implement the MOOCS. In India there is lack of resources like institutions do not have the computers, Internet connection and computer labs also. Due to this they unable to use Massive Online Courses and to take benefits from MOOCS.

Increasing Awareness about MOOCS
The awareness about MOOCS among learners and teachers is very low so we should organize some awareness programme all over India to make the people aware about MOOCS. If people will be aware about MOOCS programme, then they will get more and more enrollment according to their needs and we can achieve the objective of massiveness.

Ensuring the Quality of MOOCS
Another concern is the quality of MOOCS. All over the world the issue of quality of MOOCS is big challenge, so while developing MOOCS the focus we should keep in mind quality of programme.

Limitations of MOOCS
Providing timely support and assessment of students has become a challenging task as far as MOOCS are concerned. Professors or academicians might be able to design and deliver online lectures but at the same time they may not be able to connect and evaluate the thousands of students world around who are the participants of their course.

Conclusion
The MOOCS are the future of education. They have made the education easily accessible to anyone anywhere anytime around the globe and made people’s life more improved by providing flexible and quality learning as it was earlier. They have made a difference by providing free courses and enabled people and students world around to participate,
interact, discuss and learn from the faculty of this world. Moreover, there should be a cost effective and clever management for running MOOCs. With little efforts by the India government, online education can be extended to every individual. All over India, universities should be asked to organize workshops for developing MOOCs. Faculty may be familiar with MOOCs, but still the awareness for MOOCs is very less. MOOCs could help make science and technology education accessible to masses but require to develop technical skills among students. The education system managed through advanced technologies and online studies will definitely help India to nurture its growth.

References
7. Berg, DirkJ. Why MOOCs are transforming the face of higher education.