MOOCs, A Research Laboratory; Opportunities and Barriers in India

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Massive open online courses have envisioned a education with unlimited participants with open access to all with an interactive forum for the academia. MOOCs recently got recognition from the education professionals, media and technologically friendly section of the society. With setting up of open learning platforms, many prestigious universities all over the world have started giving education with online courses. Some startups which are commercial in nature like Udacity and Coursera are also working collaboratively with the universities in running their online courses. The extensive and swift expansion in MOOCs have ignited a spark for commercial interest for the major cooperations who want to be a part of higher education with MOOC approach.

In the last few years, the enrollment in MOOCs has increased tremendously. As far as global enrollments in MOOCs are observed, India is at the second position after US. Indian higher education is world's third largest higher education in terms of number of institutes and enrollment of students. But there are some quality issues which remain unattended in its process of expansion. Invasion of MOOCs in Indian higher education seems a panacea to all these problems and challenges as they seem revolutionary and enable a competent teacher with educational resources to reach out a large number of learners with different location and different learning pace. The expedition of education specifically the distance education has become very easy with MOOCs. Looking at the growth of enrollment in MOOCs and the satisfaction of educational needs of the learners, Indian government has started a good number of projects for online courses through MOOCs. Presently NPTEL, IITBX, SWAYAM

[Type text] The present research paper is an outcome of the research work being conducted with complete financial assistance provided by Indian Council of Social science Research, Delhi for the major research project on " Capacity Building Programme for Teacher Educators at PG level in Haryana through Constructivist Pedagogy based MOOC Approach; Design and Development of e-learning Course." The author acknowledges the council support for this research work.

participants, the type and nature of the learning process involved, the technology and the course employability prospects. Since, it is a new form of learning and is in evolving stage, it becomes necessary for the educationists and researchers to validate this teaching learning methodology and work on emergence of the ways that ensures maximum positive impact.

Introduction

Massive open online courses are the recent developments in the field education with a potential to provide access to quality education at scale. Firstly this term 'MOOC' was given by David Cormier and Bryan Alexander from University of Prince Edward Island in the year 2008 in context of a course entitled "Connectivism and Connective knowledge" which was taught by George Siemons and Stephen Downes at University of Manitoba. This course was online and free of cost to the public. Siemons and Downer were widely recognized for creation of this first online course of MOOCs, although a number of attempts were also made for making course content and notes available online. The term 'MOOC' characterises its features itself such as 'Massive' means ability of a large number of learners to attend the class in a self paced manner. 'Open' conveys the openess in terms of entry requirements and free of charges. Although the content access is free of charge, but some MOOCs charges fees to provide certificate. MOOCs also varies in terms of the Pedagogy of the course, the two categories varies widely. One is xMOOCs, which involves teacher centric pedagogies based on models of instructivist learning. It generally involves content delivery by video lectures and text materials. Evaluation is done generally by computerized quizes and queries are taken in informal discussion. The second one is cMOOCs that involves student centric pedagogy. It is based on learning models that involves social networking and creation of knowledge collaboratively.

The recently evolved MOOC models are not entirely different from the earlier online courses such as Khan Academy or the on demand online courses offered by ALISON. Because in the beginning of 21st Century, The Massachusetts Institute of technology was providing course content free of cost, through open courseware initiatives. These were designed in a way that facilitated independent study. Higher education institutions and platforms such as MIT, edx, coursera also gained popularity by associating with the MOOCs.

MOOCs from Perspective of Indian Higher Education System

Platforms for MOOC's in India

For supporting open education and providing access to masses in higher education, Indian government has taken some initiatives. Initially, open resources were provided in the form of e-books, online libraries and repositories. Some specific examples are National Digital Repository by IGNOU. Sakshatvidyavahini which aimed at integration of ICT into rural school curriculum. These initiatives were taken by establishing particular departments such as ERNET (Education and Research Network), EDUSAT (Satellite for educational purpose), CEC (Consortium for Educational Communication), INFLIBNET (Using television for dissemination of educational knowledge). These initiatives gave impetus to open education and still away from online courses. In 2013 government launched e-PG Pathshala which run post graduate courses with the help of INFLIBNET of UGC. It was also content repository and assessment but not MOOC's. In India there are only few universities and institutes which can support or start MOOC's which are NPTEL (National Programme on Technology Enhanced Learning) which is a joint initiative of seven IITs and IISc for offering courses on engineering and science. IIT Bombay X is also a nonprofit MOOC platform developed by IIT Bombay using open edx platform in 2014.

SWAYAM: Study Web of Active Learning for Young Aspiring Minds' MOOC delivery platform launched by MHRD, Delhi with aim to launch 2000 courses. Learners can get credit for MOOC course on SWAYAM and can get transfer in parent institute.

MOOCs as an Opportunity provider

In order to address the critical need of human resource for billions of individuals who would not have access to the higher education, the concept and ideology of MOOC is fruitful in International growth. Venkataraman(2013), stated that the functioning of MOOCs is more like an event of a conference and less like a interactive online course.

Some important concerns for implementation and potential success may be provision of technological facilities in higher education institutes, financial investment, diversity in the characteristics of the population, quality of course content and acceptance and adoption of MOOCs by the learners, teachers and academic institutions. Most of the MOOCs are free of cost or charged for certification only. It seems a revolutionary step for bringing higher education to the door step with a few clicks of those learners who otherwise could not have access to higher education. MOOCs also seems as a panacea for over crowding in few courses. As in offline mode the number of seats are fixed for a course but with MOOCs, no over crowding occurs and large number of learners can access the course and study at their own pace. Best teaching and best resources are made available to a large group of learners, so it results in improvement in quality of teaching learning process. As the musicians and standup comedians do, they record their best performance and play before the public, so as in MOOCs, the teacher/professor records their best lectures on the topic and arranges supporting educational resources and makes it available online. MOOCs also provide an interactive platform to the learners at local, national and global level and help in bringing learners together at a same platform. MOOCs are not a substitute of teachers rather they are complementary to face to face mode of teaching in classroom in blended mode and flipped classrooms where a teachers ask students to listen to some assignment or to watch a video and come back to classroom with constructed and evolved thoughts for further discussion and elaboration and leads to interactive learning.

The teaching in higher education in 21st century education, requires a innovative approach as the learners are changed and are called digital natives, they are also not passive spectators, rather active and will work towards the construction of knowledge, if supported through innovative pedagogies . Moreover, the expansion in higher education is also the need of the hour to meet the need of masses in India. 'MOOCs' as an innovative pedagogy, can be the best suitable answer to the issue of increasing diversity among the population of students, massive expansion in higher education and for the effective use of technology and other online resources.

Some Challenges with MOOCs:

There are some controversies and challenges involved with the use of MOOCs which need to be handled. India has some indigenously cropped challenges which come in its way towards its success. These may be unavailability of technological infrastructure, financial investment related challenges, diversified population of the learners, quality of online courses and acceptance and adaption of MOOCs by the learners, teachers and academic institutions.

These may be elaborated as:

1. **Provision of Technological Facilities :** The course content available in MOOCs needs high speed interest connectivity, computers, internet and smart phones which are under luxuries and not available to a large section of society in India. Restricted availability of technological infrastructure has confined and limited the access to MOOCs. In order to implement MOOCs and for its successful outcomes better technological facilities need to be made available to teachers and learners in higher education in higher education.
2. **Financial Investment:** Availability of technologically equipped human resources, content generation, infrastructural facilities and availability of platforms is costly affair. In order to manage financial investment, involvement of public private partnership for creating MOOCs may be of significant importance.
3. **Diversity in the characteristics of Learners:** India is known for diverse languages and multicultural societies. For acceptance and adoption of MOOCs there need to be an agreement on common language of speaking. Commonly globally accepted language, English also poses problem as many learners in India are not fluent in it. Most of the current MOOCs courses are being run in English and learners are discouraged and don't continue the course. Translation of MOOCs programmes in regional languages is very tiring & cumbersome process and may loose global quality. This challenge of language need to be addressed by the MOOC providers in some realistic manner.
4. **Quality concerns of the course:** Quality of teachers and technical staff are the significant factors in determining the quality of course content. Teachers are not technologically equipped to use the tools. Adoption policies of our country are also not supporting the adequate use of freely available online educational content of OERS. There is also a need for National quality assessment framework for assessing the quality of the content and adoption of new approaches like integrated courses and credit transfer apart from training of the teachers. (Karlsson, Godhe, Bradely and Lindstrom, 2014). In a meta study of MOOC's, it is labelled as time consuming, challenging task and overwhelming for explaining learners reactions towards the content. It was stated that learners need to be trained in using MOOC's for learning (Liyanagunawardena, Adams and William, 2013).

Conclusion:

The above brief discussion on MOOC's in Indian higher education, a massive research laboratory; opportunities and challenges, gives some suggestive measures for possible implementation and successful outcomes. One may be provision of adequate technological infrastructure for the higher education students and teachers. Adequate training for teaches for using technological tools for content creation and training of teachers in using MOOC's. For creation of MOOC's public private partnership may be promoted for financial support. MOOC providers must come with some evolved means and MOOC models to carter the diversity of population in higher education. Acceptance and adoption of MOOC's can be facilitated by adoption of technology by the learners.

Although massive open online course have tremendous potential for providing access to masses as law of equity, access and equality demands. Its potential for dissemination of quality educational content and resources can be realized by following some above stated measures. Only than the MOOC's, which are now considered to give benefits to the privileged, educated and technology friendly leaners will definately be a panacea for the education problems of masses in higher education.

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