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MOOCs
(Massive Open Online Courses):
A Potential Solution for Challenges in
Indian Higher Education

Abstract

Higher education in India is undergoing considerable changes to develop a good education system. The Indian education system faces many difficulties and challenges such as equity, quality education, access to education and individualised learning. Fifty percent of the Indian population is under the age of 25 and this requires the setting up of many universities and colleges to provide access to education for all young learners, which could result in huge expenditure. Although the numbers of educational institutions are being increased by the government, there is still a gap between the demand and supply. India is a populous and developing country that needs to not only reduce expenditure, but also provides quality education. MOOCs (Massive Open Online Courses) can be seen as a potential solution for the Indian higher education system.

Introduction

India provides the facility of training and education in almost all aspects of knowledge. According to the latest edition of the All India Higher Education Surveys (AIHES) launched by the Ministry of Human Resource Development in 2016-17, the Gross Enrolment Ratio in higher education is 25.2 percent. The aim of India is to attain 30% of Gross Enrolment Ratio in higher education by 2020. India is still far behind countries like China and USA which have a Gross Enrolment Ratio of 43.39% and 85.8% respectively. According to the All India Higher Education Survey (AIHES) Gross Enrolment Ratio is "a statistical measure for determining the number of students enrolled in undergraduate, postgraduate and research level studies within the country and is expressed as a percentage of the population."

The Indian higher education system is on expansion to meet the requirement of young Indian population for providing equal access to all the young people of the country as more than 50 percent of Indian population is under the age of 25. The quality of higher education in India is significantly poor as compared to major developing nations of the world. India faces a need for systematic change to improve the quality of teaching and learning in affiliated colleges.

There are many challenges that the Indian education system is facing today. The number of educational institutions has been increased by the government of India to provide access of higher education for all the individuals but still, there is a gap between demand and supply as institutions are still short in numbers as compared to the population. The uneven growth of population and access to opportunity for higher education is still a challenge for the Indian

education system. Quality of education in India is still lagging far behind compared to the world level. There is also a need to improve the credit system of India in comparison to the world-class system. Despite so many challenges, many educationists believes that the Indian higher education system has the opportunity and capability to make its mark at the international level.

Mcaully Stewart et al (2010) states, "MOOC is an online course with free and open registration, publicly-shared curriculum and open-ended outcomes." According to The European Association of Distance Teaching Universities (EADTU) MOOCs are "online courses designed for large numbers of participants, accessible anywhere by the internet, open to everyone without entry qualifications and offer a full course online for free". There are many ways of using MOOCs in the education system along with another teaching method by blended mode, flipped classroom or separately by itself without any other method of teaching. MOOC can be developed by the teacher and there is the opportunity of using already available MOOCs from worldwide platforms like ALISON, Courses, edX, Iversity, etc.

MOOC in India

With the increasing trend of MOOC all over the world, India also looks forward to joining the futuristic idea of MOOC. The first initiative was taken by IIT Bombay in July 2014. IIT Bombay offers many open courses which enroll more than 35,000 students from all over the world. Birla Institute of Technology and Sciences (BITS) Pilani collaborate with Harvard and MIT to offer MOOCs to its students as well as outsiders by using edX (MOOCs platform) in August 2014. Lady Sri Ram College (New Delhi), Learning Links Foundation and Bluebells Schools International (New Delhi) had alliances with Course which is a MOOC platform which collaborates with the top

most universities in the world to provide the best possible courses.

A trial of providing free online certificates to engineering students on algorithm, design, and analysis was started by the alliance of Visvesvaraya Technological University (VTU) and Microsoft Research. The National Programme on Technology Enhanced Learning (NPTEL) project which is funded by the Ministry of Human Resource Development (MHRD) is joined by The Indian Institute of Science Bangalore (IISc Bangalore) and The Indian Institutes of Technology (IITs) of Chennai, Delhi, Guwahati, Kanpur, Kharagpur, Mumbai and Roorkee for the purpose of delivering MOOCs. On 5th September 2014, saw the launch of The National Virtual Academy for Indian Agriculture, at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) to facilitate access to quality education on agriculture as more than seventy percent of the Indian population is involved in agriculture.

An online platform named Study Webs of Active Learning for Young Aspiring Minds (SWAYAM) was initiated by the Ministry of Human Resource and Management. SWAYAM is going to use the Open edX MOOC platform to deliver MOOCs courses. A programme named Global Initiative of Academic Networks (GIAN) was initiated by the MHRD and the National Science Foundation (U.S.A.) in which faculty members of US Institutions deliver the teaching in academic and research institutions across India.

There are some other digital initiatives in India are one of these is SWAYAM Prabha, which is a group of 32 of a similar nature Educational DTH channels and the National Digital Library which is a virtual repository of learning resources. Swayam Prabha with 32 DTH channels is to make accessible good quality educational content to everyone. Since it would cover diverse fields is to another way of offering non face to face content to those interested. The content in this can

supplement the many courses offered under Swayam as well as other courses and can be accessed at their own location conveniently. It does not even require the internet and has a great potential to spread content above education.

Benefits of MOOCs

Provide World-class Education

MOOC is offered by different international universities and their recognised professors and hence provide world-class education to individuals all over the world without any restriction of time and money.

Innovative Initiative in Teaching

MOOC is an initiative which came with a new idea of teaching. The teacher can use MOOC in blended mode and also in a flipped classroom. The teacher can develop MOOC and use the already developed MOOC.

Accessibility

MOOC can be accessed online from anywhere and anytime for free. It is openly accessed by anyone without any pre-eligibility criteria.

Reduce the Expenditure on Education

MOOC reduces the expenditure on physical infrastructure and provides online education which needs very little expenditure. This reduces the expenditure on the education system and provides an economical system which is the need of developing country like India.

Helpful in Improving the Gross Enrolment Ratio

The MOOCs it an excellent platform to increase the total number of learners enrolled in higher education. It provides an opportunity to those who are engaged in some professions to earn at their convenience and be supported in their learning. It also provides them an opportunity to learn at their own pace and through their own preferred ways. It therefore helps those who have dropped out or unable to continue education by providing them ways and means to learn on their own.

Promote Equity and Quality in the Indian Education System

MOOC provides open access to all and provides equal opportunity in the education system. Most of the MOOCs allow downloading of the content and using it offline which also reduces the restriction imposed by the internet especially in rural areas. MOOC is developed by professionals who ensure the quality of the content of the course. It also provides knowledge for the sake of knowledge. In India, SWAYAM provides four quadrants for the courses hosted by it to maintain the standard of the course.

Educational Content can be Easily Updated in MOOC

With the passing time, we encounter new researches and knowledge which cannot be easily updated in print media like books but MOOC content can be easily updated. It provides the updated content for learning for quicker than other learning materials.

Promote Collaborative and Independent Learning

MOOCs encourage peer learning and collaborative learning as the learner is allowed to interact with individuals enrolled in a particular course from all around the world with the help of the Discussion Forum. Since a MOOC instructor is not available all

time, a learner has to learn and understand the content by himself, which promotes independent learning.

Self-paced and Individualised Learning

MOOC allows you to move at your own learning pace without imposing any restriction to learn the particular content within a set time. It promotes individualised learning which is the need of today's education system.

Availability of a Variety of Courses From Worldwide Platforms

MOOCs offer a variety of courses related to many subjects. It provides options to choose different courses from worldwide platforms. Colleges allow one to access only a limited number of subjects. Even schools provide a limited number of subjects to study, but this is where MOOC can be helpful.

Challenges Faced by the Indian Education System for Proper Implementations of Mooc in India

1. A MOOC can be created by anyone, so this increases the possibility of development of content by an unprofessional person. In such cases, MOOC may provide content which is not of good quality. So a student must choose carefully and join the MOOC which is developed and created by professionals.

2. Different languages are used in India and MOOCs are not available in all the languages which restricts its use in India.
3. Lack of awareness about MOOC is also a challenge in India as individuals do not know about it.
4. To access the MOOCs, there is a need for basic digital literacy which restricts the access in India. Many who do not have access to Internet cannot reach.
5. Low completion rate of MOOC programme also shows that it a great challenge to use such courses in the education system of India.

Conclusion

MOOC programmes bring a huge revolution in education in all around the world and the Indian education system has also benefitted. In spite of its challenges, MOOC is very beneficial for Indian higher education as it can provide worldwide Quality imbued education and reduces the cost incurred. This is needed by a developing country like India. It promotes self-paced learning which is beneficial for all kinds of learners. The need for digital literacy and some knowledge of technical devices like laptop and mobiles, restricts its availability to some extent. Access from smart phones which are used by most of the young learners. However, opens new possibility MOOC can be used in blended mode with other teaching methods which increase its effectiveness. MOOC can be used to increase the gross enrollment of students so it is a very efficient and effective tool which can be used as a support for higher education in India.

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