



AN OVERVIEW OF MASSIVE OPEN ONLINE COURSE (MOOC) IN HIGHER EDUCATION SYSTEM

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Abstract

The present study focusses on to know about the MOOC courses and its impact among the learners. In today's world MOOC courses plays an important role and it has attracted large number of learners throughout the world. It is a strategy where in anywhere anytime learning takes place from the learners and it facilitates the learners to access the portal and get the study materials, lectures, videos etc. This type of e-learning facilitates the learners to learn confidently and to gain knowledge in varied subjects.

Key words: Origin of MOOC, advantages, disadvantages, growth and challenges

Introduction

The Massive Open Online Courses (MOOC) have brought a tremendous shift in today's education sector due to the widespread usage of Information and communication technologies. Through the online courses people are able to spend their time in e-learning as a play way method. The concept remains in the mind for a longer time with audio visual means of learning. MOOCs provides interactive courses to the learners and brings them to a common platform like offline class atmosphere by giving quizzes, assignments and getting feedback from the learners. This strengthens the courses.

I.Origin of MOOC

The term MOOC was developed by Stephen Downes and George Siemens entitled connectivism and connectivity knowledge (CCK08) course in 2008. Their aim was to have an interaction between a wide

varieties of participants with the usage of online tools and also to provide richer learning environment than the traditional methods. Twenty five students had attended the course on the campus from the University of Manitoba, Canada and two thousand and three hundred had participated online. This was the success of MOOC's history. MOOCs with an emphasis on interactions and connectivity are now called cMOOCs. In the year 2011, Stanford offered three courses for free online for which Peter and Sebastien offered "Introduction to Artificial Intelligence" to an initial enrollment of over 160,000 students from around the world. Over 20,000 students completed the course. These xMOOCs focused less on interaction between students and more on exploiting the possibilities of reaching a massive audience. Thrun founded a company called Udacity in February 2012 which began to develop and offer MOOC for free of cost. In April 2012, Andrew and Daphne and two Stanford Professors started a company called "Coursera" which have partnered with universities in preparing and offering MOOCs. Massachusetts Institute of Technology (MIT), developed the MITx for offering MOOC, now renamed as edX.. It offers Moocs and now has thirty university partners.

II. Pillars of MOOC

There are two fold pillars of Mooc, they are

Technical Principal

- Postal system - Radio -Tv- Internet - Distance learning

Ideological Principal

- Education for all- practical skills to anyone who wishes to attend, regardless of their age, financial means, or social background

➤ 2.1 Technical Principal

The technical principal of Moocs refers to the distance learning mode. It means the system which has been transformed from postal system to radio, TV and internet. These technological advancements have paved the way for e-learning.

➤ 2.2 Ideological Principal

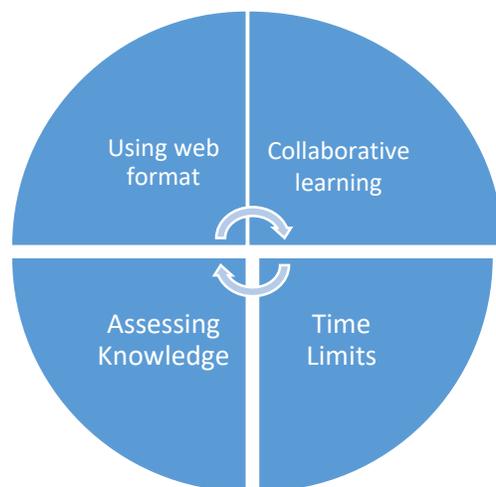
The idea of "Education for All" is the second pillar of Moocs. It provides theoretical and practical skills irrespective of age, gender, financial means etc. It is popular throughout the 20th century in Europe.

3. Beginning of Online Teaching

The first online course was very basic. The courses that was previously sent by the postal system were sent by email with documents with improved bandwidth, and videos. The face to face classes were simplified by a camera at the back of the classroom and it is made available on the internet, without any editing work. In early 2000 's the Open Education Resources (OER) was born in US. Massachusetts Institute of Technology (MIT) is cited as the pioneer of making courses available on the internet.

4. Characteristics of MOOCs

There are four characteristics of MOOCs they are as follows:



➤ 4.1 Web format

MOOCs rely heavily on web formats. It depends on pre-recorded videos streamed by users. MOOCs uses streamed videos to simulate the presence of the trainer. It uses live-streams to create a virtual classroom environment. The teachers organize live sessions with their students using hangouts. It will feel the learners lively and have interaction with the trainers. MOOCs also offer meetups and in-person get togethers.

➤ 4.2 Collaborative learning

Collaborative component is the key aspect of MOOCs. During a MOOC everything is possible to recreate the in-class experience by using collaborative tools. The input of each participant enriches the course with social Q&A forums, face book groups, meetups or peer corrections used to encourage and develop collaboration.

➤ 4.3 Assessing knowledge

MOOCs offer tools to assess the transfer of knowledge. The modules help to make courses more dynamic and interactive in the form of multiple-choice questions, programmed tests that are automatically evaluated by the co-learners.

➤ 4.4 Time Limits

MOOCs have specified start and end dates. Course content including documents, videos, exercises etc. is delivered sequentially each week. It helps the learners to adhere to the time limits in getting email updates about the release of assignments, discussion forums, exam fee payment etc. It resembles the traditional classes with weekly assignments and thus removes the distance in learning and brings the learner and trainer together.

5. Advantages of MOOCs

- Courses are freely offered with exam fee alone
- Access to courses offered by professors at the top schools
- Courses are available to a vast and diverse audience across the globe
- Learners' performance can be monitored easily through artificial intelligence systems
- Both the professors and learners get worldwide exposure and thus improves knowledge sharing.
- It can be used in blended learning programmes

6. Disadvantages of MOOCs

- It is difficult to track students' involvement
- Learners with poor internet connection is a failure
- Unable to provide personalized courseware and attention to the students

7. World University Rankings by MOOC performance in 2021

MocLab's World University Rankings by MOOC Performance (WURMP) judge universities on their provision of Massive Open Online Courses (MOOCs). This year's rankings (WURMP 2021) include 200 universities covering 34 different countries across the world offering courses on the three leading MOOC platforms - Coursera, edX and FutureLearn.

7.1 Most important MOOC providers

- Coursera.
- edX.
- Udacity.
- Udemy.

- Kadenze.
- FutureLearn.
- Swayam.

Top 10 ranking - World University Rankings by MOOC performance in 2021

Rank	Institution	Average World Ranking	Country
1	Coventry University	732	UK
2	University of Michigan	22	USA
3	Arizona State University	177	USA
4	University of Illinois at Urbana-Champaign	58	USA
5	Massachusetts Institute of Technology	3	USA
6	University of Colorado Boulder	135	USA
7	Purdue University	94	USA
8	The Open University	726	UK
9	University of Pennsylvania	16	USA
10	University of Queensland	54	Australia

8. MOOC Programme in India

The University Grants Commission (UGC) along with the HRD (Human Resource Development) Ministry has launched the MOOC program in India for higher secondary, bachelors and masters degrees. It covers a wide range of subjects that may or may not be taught in regular campus studies. A new portal for MOOCs named 'Study Webs of Active-Learning for Young Aspiring Minds'(SWAYAM) is said to present students with an opportunity to study anything from anywhere.

MOOCs gained popularity in India for over half a decade for students and professionals, especially in technology and engineering, who found it difficult to upgrade their skills in the ever-changing and disruptive world of technology. According to the class central MOOC report 2019, India invested more than USD 33 million in SWAYAM. Instead of such higher cost, the platform is open, SWAYAM courses are free to take. Besides, India hopes to raise national enrollments in higher education to 30% by 2021. According to Coursera, out of 35 million users worldwide, India has the most significant number of learners on the Coursera platform after the United States.

9. MOOCs in India and Abroad

There are various notable institutions, both non-profit and commercial, that offer these courses worldwide with the help of MOOC providers. A few of these are listed below,

- **NPTEL (India):** Indian Institutes of Technology (IITs) and Indian Institute of Science (IISc.) offer online courses through this platform which require no registration and are free of cost.

- **WizIQ (India and USA):** IIT Delhi, India offers this course through this platform which requires registration and fees to study courses offered by them.
- **Open2Study:** The headquarters of this platform for online courses is based out of Australia.
- **Coursera:** The headquarters of this platform for online courses is based out of USA.
- **edX:** The headquarters of this platform for online courses is based out of USA.
- **udemy:** The headquarters of this platform for online courses is based out of USA.

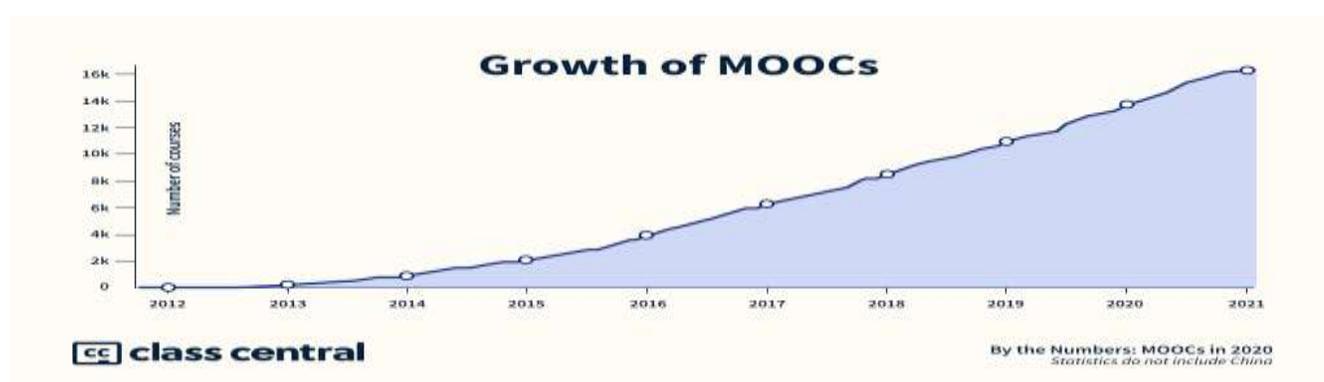
10. Competitive Landscape in MOOCs

The MOOC market is moderately competitive and consists of a few significant players. In terms of market share, some of the major players currently dominate the market. However, with the growth of the innovative educational platform, new players are increasing their market presence and expanding their business footprint across the emerging economies.

- May 2020 - edX announced a global initiative to help universities facing the challenge of implementing effective online teaching and learning. By offering access to expertise and content for free, edX is assisting universities in creating a plan for the upcoming semester when a vast majority of campuses are likely to be closed or partially closed. The initial response to the COVID-19 pandemic from universities was to address the move to remote teaching quickly.
- March 2020 - Coursera is making its entire course catalog free to universities worldwide to help counter the disruption caused by the coronavirus pandemic, forcing campuses to stop in-person teaching. The announcement comes as more institutions across the globe were instructed to suspend classes to halt the spread of COVID-19.

Indian MOOC Platforms and Providers

Initiative	Year of launch	Institution behind the platform
NPTEL	2003	IIT Madras
MooKIT	2012	IIT Kanpur
IITBX	2014	IIT Bombay
SWAYAM	2016	MHRD & Microsoft



11. Challenges faced by MOOCs

Some of the leading universities around the world have partnered with MOOC providers such as coursera, EDX and tried to deliver high quality online courses to millions of students around the world. But there are several issues.

11.1 Technical infrastructure

- MOOCs will be able to make substantial impact only when the universities are able to upgrade their technical infrastructure.

11.2 Evaluation Method

- The major issue with MOOCs is their evaluation mechanism. They are student focussed but in most cases the assessment mechanism is not very strong.

11.3 Cost of creation

- MOOCs are provided free but creation of content as study material is not free. The cost of creating the content can burden the universities with extra costs. Thus, there needs to be a mechanism to handle the financial requirements of creating MOOCs.

Conclusion

Thus the MOOCs has influenced the learners in the higher education system in a great way through the e-learning strategy. People consider these courses as a greatest advantage in gaining adequate knowledge. The type of flexibility in learning facilitates the learners to join as many courses they like. Credit transfer helps the students in higher education to complete their degree courses at undergraduate and post graduate level as prescribed by the university grants commission. In the era of continuous advancements in teaching learning process, these e-learning strategies helps the teachers, professors and trainers to enhance their teaching skills. It also equips the teaching staff of universities and colleges to understand the modern pedagogical approaches required by the learners and ultimately transform it to students. Hence, the penetration level of MOOCs is very high among the learners.

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