

Digitalization of Higher Education through MOOC

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ABSTRACT

Arrival of massive online open courses brings plenty of opportunities for prevailing education system in our country. The Indian Government has started various programmes under Massive Open On-line Course (MOOCs) movement which is playing a pivotal role in transforming higher education in order to improve reachability to the India youth. MOOCs have emerged as one of the most potential tools in providing quality education and massive training to a learners and audience worldwide. In spite of enhanced assistance people accessing MOOCs from the developing countries, especially India is not counting out to a significant number. India provides an abode of education offers a prospective space to MOOC for giant scale accomplishment. However several factors and constraints like lack of proper digital infrastructure, and low digital literacy hamstring the entire process of extensive accomplishment of MOOCs. MOOCs include various programme under Digital Saksharta Abhiyan (DISHA). The ambitious project of GOI includes National Programme on Technology Enhanced Learning (NPTEL) courses for graduate & post-graduates students of Engineering, Humanities, Management, and Social Sciences. Another one is, Global Initiative of Academic Networks (GIAN) aimed at tapping the talent pool of scientists and entrepreneurs for skill development. Government of India has taken initiative to create National Knowledge Network (NKN) for connecting various government research centers to share their data & research outcome. Some other project like National Digital Library (NDL) is open to all for the aforesaid above purpose.

These visionary projects of GOI have some limitations in planning and implementation phases. Major challenge is the acceptability and credibility of on-line certificate course by University Professors and Students. These certificates course need to add advantages for government jobs and promotions. The paper provides a glimpse of Anxieties and Constraints for Implementation of such projects. The manuscript also concludes planning level suggestions for further improvement so that MOOCs platform could be used significantly. These suggestions may have capacity to change the dynamics of on-line higher education in India.

Keywords : MOOCs, On-line Learning, Higher Education, Digitalization

Computing Trendz (2018). DOI: 10.21844/cttjetit.v8i1-2.11000

Introduction

Massive Open On-line Courses (commonly MOOCs) is most popular path-breaking and emerging sector in the digital education. The concept of MOOCs originated in 2008 among the open educational resources (OER) movement. In which 2012 was an enormous year for MOOCs, as the industry attracted significant media buzz and venture capital interest. Devastating the constraint of distance within the space of education during a digital and most efficient and secure way, MOOCs

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How to cite this article: Agrawal, R., Gupta, A.K. (2018). Digitalization of Higher Education through MOOC. *Computing Trendz* 8(1&2): 1-6

Source of support: Nil

Conflict of interest: None

promoted open access to education, wherever totally different stakeholders involved like those imparting education and people seeking an equivalent area are tangled on-line across the globe, on the one hand it maintains a network of scholars, professors, educators, and on the another

hand is consideration with the education method, regardless of time and distance.

With the help of digitalization, education could be made available ubiquitously. MOOCs have emerged united of the foremost tools in providing distance education and massive training to an oversized domain of learner across the globe. Despite sufficient advantages and potency, people accessing MOOCs from the developing countries like India do not count to a significant number. Several factors and constraints like low digital literacy or acquisition and lack of digital infrastructure hinder this process of smooth implementation of MOOCs.

Understanding MOOC

A MOOC is “massive” because it attracts several participants per intake. Evidently, however, the demand of courses like that of Coursera, Udacity, NPTEL and edX have wellfully acknowledged and truly made effort to put the M in MOOC. The scalability of the same means that it might be massive, but we could only ever know after it had been run.

MOOC don't have any stipulations, entrance exams, person interviews or tuition fees. The requirement is simply of an on-line association i.e. internet connection. MOOC by nomenclature is an open online course however it's onerous to say that alternative barriers don't exist. Accessibility doesn't equate the accessibility, and a few individuals is also challenged by factors like language, digital literacy, bandwidth, firewalls and even censoring. Notwithstanding the importance of those problems, it's conjointly necessary to acknowledge that at its end, the MOOC provider will won't deny anyone from signing up.

The MOOC has the skilled seeding the course with provocative content, that the participants then analyze, discuss, interpret, and repose on and in doing therefore, generate content of their own. So, the “instruction” is additionally sourced from peers. While MOOCs generally run over a period of time with a begin date and of course a finish date, between that every cohort participates semi-synchronously. These restrictions of semester-wise course and beginning and ending date is also revoke so a student will enroll him / herself any time throughout the calendar. The flexible timing at individual learner's convenience will surely increase reachability of the courses among students.

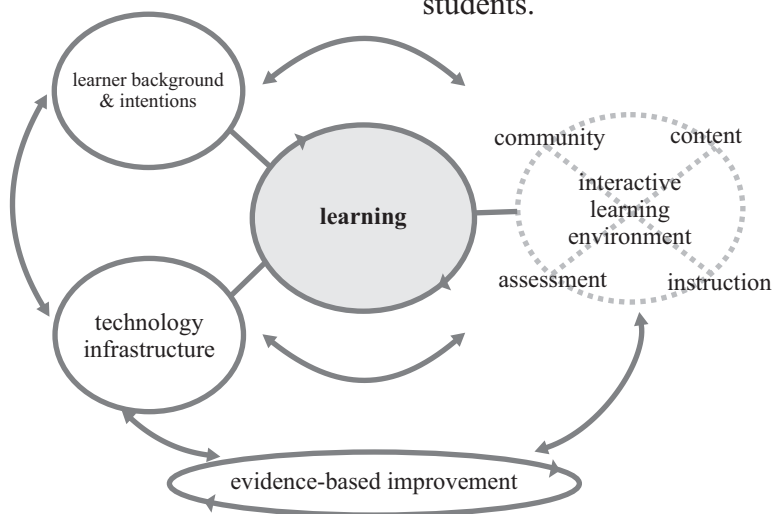


Figure 1: Distributed Intelligence Framework for the Design and Evaluation of MOOCs Shuchi Grover, Paul Franz, Emily Schneider, Roy Pea.

University approved MOOC whether it is on short term basic or long term advanced course can be undertaken by student. Universities can tie up with the industries. University designed MOOC can overcome the requirement gap by providing the missing practical approach in the existing

education sector. We proposed the above framework for MOOC in India which initiates the university approved MOOC designed for the students to impart them industry perspective knowledge fulfilling their need of jobs.

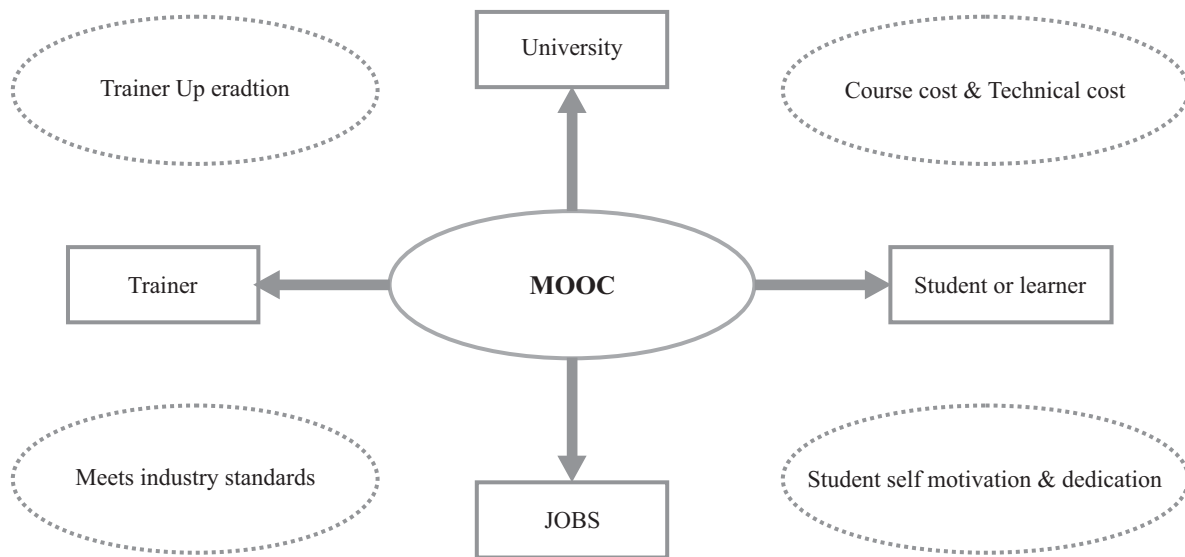


Figure 2: Framework for MOOC in India

The Government Initiatives & Present Scenario

Government of India has embarked on a major initiative called 'Study Webs of Active Learning for Young Aspiring Minds' (SWAYAM), to provide an integrated platform and portal for various on-line courses, covering all higher education, and skill sector courses. SWAYAM is an indigenous (Made in India) IT Platform for hosting the Massive Open On-line Courses (MOOCs). The journey of SWAYAM can be traced back to 2003 with the initiation of the NPTEL (National Programme on Technology Enhanced Learning), a joint Programme of IITs and IISc. This was the pioneer attempt in E-learning in the country through on-line Web and Video courses in Engineering, Science and humanities streams. NPTEL has developed e-content for 933 Courses,

Consortium of Educational Communication (CEC) for Undergrad subjects in 67 Subjects, University Grants Commission (UGC) in 77 Post Graduate subjects. Similarly, several alternative establishments have developed e-content totally different disciplines at different level.

We are witnessing unexampled developments in ICT with dramatic reductions within the size, cost, value and affordability of computers on one hand and increased speed, storage capability and responsibility of hardware parts on the opposite.

The availability and reduced cast of Internet along with the rapid spread of fast broadband connectivity and increased usage of smart-phones have also altered the concept of space and time in communication. In educational context, these ICT

developments have triggered large-scale creation and access of on-line educational content and virtualization of the higher education institutions and systems.

Major Advantages of a MOOC:

- With associate an on-line classroom/schoolroom, scaling up the course batch size could be few clicks away so increasing the scalability or quantifiability.
- On-line courses will facilitate mitigate and take away all such systemic general barriers, thus really creating education a universally obtainable resource.
- Open courses for all interested, despite location, resulting to a lot of diversified student.
- Not everyone within the world is privileged enough or sufficiently financially endowed to go to the States or Europe for higher studies. Thus no tuition fees is being charged.
- Self-paced courses enable one to review and learn at their own leisurely rate.
- Open access, exposing top level professors at schools that will rather be unprocurable to a lot of the World's population
- Some enthusiastic professors have found global sharing of knowledge more appealing. Many acknowledge that MOOCs facilitate them measure their pedagogic strategies, whereas rising and improving knowledge sharing.
- Collecting data via computer programs helps

closely monitor the success and failure of each student. Traditional schoolroom or classroom participation cannot supply this sort of precise information.

Gone square measure the years once what you learned in faculty crust you throughout your operating life. With the speedy pace of technological changes, constant learning is that the most pressing would like need of the day. And MOOCs square measure adequately equipped to handle and serve it.

Challenges towards Greater Adoption

One of the major challenges is the low course completion rate. It is also observed in some studies that courses area unit completely by as few as 10% of the massive volume of scholars that be part of the MOOC. The attainable pressing critiques of an open learning system are:

- Lack of an effective system to measure and validate the possible outcomes of the course, the way to integrate the course credits into this system, in order that it counts towards a degree from a university, and the way does one guarantee customized steering or personalized guidance and mentorship.
- Some MOOCs have experimented with term length and rates of learner engagement and persistence are staying low.
- A private profile permits an internet site to accommodate recommendations of the user. A progressive personal profile would allow educators to follow students' learning graph, with areas of confusion or misunderstanding, facilitating the development of customized learning pathways.
- Customization could be a apply to add contemporary need of marketing the course.

- Commercial websites disagree deeply from learning management systems. The commercial websites are more elegant and simply navigated in comparison to Learning Management Systems that are usually having file or tab structure
- MOOC also provides a challenge to ensure that the credentials they offer are genuinely meaningful industry aligned or valid by professional/skill associations or another respected organization.

Findings and Future Scope:

The countries education sector is undergoing a revolution with the speedy web accessibility and availableness of low value mobiles and alternative electronic gadgets. As technology is playing a major role in reaching multiple populations easily and effectively, several foreign as well as domestic service providers/suppliers square measure providing on-line education in India.

As per the recent UK-India business Council report titled Meeting India's educational Challenges through E-Learning-2015, India is the second biggest e-learning market after US. So no doubt that India is bull's eye that every e-learning service provider wants to target. The Central Government is additionally not within the back foot as way as launching new services in e-learning sector. It recently launched the Digital India Campaign, that not solely aims to boost the ways of India individual live and work however additionally aiming to facilitate education through its innovative plans regarding e-learning. The campaign targets to provide broadband connectivity, wi-fi services and so on. Improvement of digital attainment is one amongst the necessary aims of this programme. This paper primarily focuses on the progress of technology enabled learning in India with major visions and

plans of the Digital India programme and discusses how far it can facilitate e-learning in India. It additionally it also deals with the pros and cons of this innovative campaign, e-learning.

The MOOCs providers have vast funds that can be put to great use if they are invested unbiased with the thought of betterment. Following suggestions could be useful as art movement or we can say futuristic idea of MOOCs studies:

- (a) The MOOCs firm or companies and investors ought to be additional delicate in their own ways in which and not act as typical business individuals or run educationists as a result of they have to perfect mix of content and advancement and find way out for all the education issues.
- (b) Being private enterprise MOOCs need to figure out a way to return their investments and make a profit out of everything. Most of the tutorial instructional software providers are filled with hundreds of companies went bankrupt. It's rather like survival of the fittest. This seems a riddle for MOOCs developers that distinguish them from departmental and instructional design competitions. Most colleges have develop their own on-line course materials on modest budgets, primarily for teaching purposes and not with the thought of earning a profit.

Conclusion

MOOCs are in fact seen as Internet equivalent of open and distance learning, thousands of participants can enroll in a course from anywhere in the world. MOOCs are considered as a disruptive technology and a turning point for the business model of higher and professional education. It is affecting not only the revenue

stream from students, the role of faculty, the need for brick and mortar, and the way degrees are constructed. MOOCs saw a “massive” boom in the higher education world in 2012 and became a new buzzword. Ministry of Human Resource Development (MHRD), Government of India has embarked on a major initiative called 'Study Webs of Active Learning for Young Aspiring Minds'(SWAYAM), to provide an integrated platform for on-line courses, covering all higher education, High School and skill sector courses. As one of the pillars of the 'Digital India' Initiative of Government of India, SWAYAM seeks to bridge the digital divide for learners who are still remained untouched by the digital revolution.

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