Indian MOOCs (Massive Open Online Courses): Need of the hour

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Abstract

Massive Open Online Courses or MOOCs are changing the paradigm of Education around the world. In this paper, we understand the concept, its features, what role can MOOCs play in Indian context and already existing popularity in terms of participation by Indian students in MOOCs over famous platforms such as Coursera, EdX and Udacity.

Keywords: MOOCs, Coursera, EdX, Indian MOOCs, MOOCs in India

Introduction

Background to MOOCs

– With the digital revolution education in the last decade has been undergoing imperative changes on both the fronts of dissemination and reception first through e-learning and more recently through MOOCs. The term MOOC was coined in 2008 [1], when the first generation of MOOCs that relied mostly on open web sources, were introduced. Soon the MOOCs, with interest from both private and non-profit institutions, evolved that relied more on Video Lectures, Learning Management System and Discussion Forums. There was an emergence of many well-financed platforms like Coursera, edX, Udacity, Khan Academy, etc., some of them even joint attempts by Universities in US, that prompted The New York Times to name 2012 as ‘The Year of the MOOC’ [2]

Concept and Definition

The concept of MOOCs is still evolving with the technology and from learnings acquired by conducted MOOCs. Generally it is considered an online course aimed at unlimited participation through internet devices that use traditional e-learning resources like video lectures, in-lecture quizzes, readings and weekly quizzes and assignments along with interactive user forums to clarify concepts and enhance learning by providing a social learning experience to the students.

Structure of MOOCs

A typical MOOC has instructional material using Four Quadrant Approach (Video Lectures, Demonstrations, Quizzes and Supplementary Reference Material) which is developed beforehand by Course Instructor(s) lead academic team consisting of Academic Associates. The course lessons are then released on a weekly basis along with live forums which may be used for weekly assignments, concept and doubt discussions and enhancing student’s/learner’s network. These forums are constantly moderated and reviewed by the Academic team. The course ends with a final examination that is proctored or in the form of assignment.

Role of a MOOC instructor

The role of an instructor in delivering a MOOC is that of a captain of a ship. She will not only plan the journey for the students but also the ship’s smooth sailing till they reach their destination. An instructor will therefore need to plan out the course, prepare engaging Instructional Material with Academic team, moderate the forums while the course is on and collate learning’s from the whole experience so that the next MOOC is even more engaging and has more participation.
Features

Some of the distinguishing features of MOOCs are:-

- **Massive** – MOOCs can have a large number of participants. It is not uncommon for some of the popular MOOCs to have over lakh participants.
- **Open** – Anybody who is desirous of learning can join a MOOC without any formal qualification restriction. Of course the MOOCs state pre-requisites for a particular course but they don’t stop any learner from joining in.
- **Interactive** – MOOCs are highly interactive where students not only interact with the Instructor but also with fellow cohorts and thus collectively figure out answers.
- **Four Quadrant Approach** – MOOCs follow the four quadrant approach which enrich the instructional material by including content based lecture videos, animations or interactive simulations, supplementary resources like case studies, wiki development of the course, open content available on the internet, etc. and problems, quizzes and assignments. Information and communication Technology is used to its fullest capabilities to enrich the courseware and delivery.

Indian Participation

The participation by Indians has been overwhelming in the major platforms such as Coursera, edX and Udacity. According to recent numbers the leading MOOCs platform has 10.5 million enrolled students. The following graphic provides the approximate number of enrollment for the popular platforms [3]. Further on most of the platforms the Indian students make the second largest community of learners after United States. The following figure shows us the recent data from MITx [4].

<table>
<thead>
<tr>
<th>Provider</th>
<th># of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coursera</td>
<td>10.5M</td>
</tr>
<tr>
<td>edX</td>
<td>3M</td>
</tr>
<tr>
<td>Udacity</td>
<td>1.5M</td>
</tr>
<tr>
<td>MiriadaX</td>
<td>1M</td>
</tr>
<tr>
<td>FutureLearn</td>
<td>800k</td>
</tr>
</tbody>
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MOOCs in Indian Scenario

Because of various hindrances, the Gross Enrolment Ratio in higher education (Total Enrolment in higher education, regardless of age, expressed as a percentage to the eligible official population of 18-23 years in a given school year) in India on the lower side (19.4 for 2010-11) [5]. Here MOOCs can play an important part since MOOCs being online courses can reach the students wherever internet can reach.

Indian MOOCs

Indian MOOCs can make way for smooth implementation of Choice Based Credit System (CBCS) in undergraduate courses. Presently most of the MOOCs are conducted by Western Universities who are facing a problem of engaging students from developing countries since there is a lack of cultural translation. The examples, case studies, etc are all from western countries which students from other developing
nations find hard to relate. Indian MOOCs will address this problem.
Indian MOOCs may also have subject topics that have not been explored yet, such as Classical Indian Music, Indian History, Yoga, etc. They can also be used to provide high quality education to remote parts with subjects that require intensive graphics and visual illustrations.

References
5. Gross enrolment ratio (GER) in higher education (18-23 years), 2010-11.
6. https://data.gov.in/visualize3/?inst=156855a12210962f8ec06b6f6e7a6f8a#