Roll of MOOC in Indian Education System

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Abstract

MOOC is the cheapest and most flexible technique or a way to get on demand and online education from anywhere throughout the world, available for anyone, who want to gain knowledge and earn a recognized certificate, diploma, or degree, without attending formal classes and without taking admission to the traditional universities and colleges. It is a platform that provides the best and quality education from all over the world to every single person throughout the world. Many universities are offering various MOOC courses for the outside students/learners. In India, mainly there are two MOOC platforms are available and they are recognized by Government of India and various apex bodies working in education field. Many individuals are taking benefits from these MOOC courses to increase the thirst of their knowledge and sharpening their skills, by getting certified from authorities. Industry also now looking for the ready to work candidates for increasing their overall throuput and efficiency in this competitive market. So, MOOC provides a win win opportunity for all.

Index Terms– MOOC, SWAYAM, NPTEL.

INTRODUCTION

MOOC (Massive Open Online Course)– MOOC is the way to reach to large number of people through a single open to all web interface, to interact on a common course or topic.Provides open source online courses for everyone via web (or internet). MOOC courses are available to all, irrespective of gender, age, nationality and other factors. Anyone can register to his/her interested MOOC course available and by self-learning , will be assessed by course experts based on some online examination or other sort of assessment tools like – solving regular assignments, project development, problem solution.

Advantages of MOOC over traditional education system.

- Anyone can join any course online from anywhere.

- No need to go to any institute for learning. A course can be learned by watching videos or reading notes, delivered by instructors.

- Learn from experts, throughout the world.

- Learn from renowned institutes.

- Free or at very low cost as compared to traditional education.

- Flexibility in learning.

- Freedom to select exam date and schedule.

- Online forums available for discussion

- A learner can select as much courses as he/she want at a time.

MOOC COURSES IN INDIA

MOOC in India -

There are basically two MOOC platforms widely used in India – SWAYAM and NPTEL.

1. SWAYAM (Study Webs of Active –Learning for Young Aspiring Minds)

SWAYAM is a programme initiated and designed by Government of India to achieve the three cardinal principles of Education Policy viz., access, equity and quality. SWAYAM provides a digital platform to the students and knowledge aspirants to learn through a well-structured and recognized channel all over the world. Without going to any formal classroom and school or college, anyone can get a school level, certificate level, diploma level, graduate level and post graduate level education as per interest or need. [2]

This is done through an indigenous developed IT platform that facilitates hosting of all the courses, taught in classrooms from 9th class till post-graduation to be accessed by anyone, anywhere at any time. All the courses are interactive, prepared by the best teachers in the country and are available, free of cost to the residents in India. More than 1,000 specially chosen faculty and teachers from across the Country have participated in preparing these courses.[2]

The courses hosted on SWAYAM are in 4 quadrants – (1) video lecture, (2) specially prepared reading material that can be downloaded/printed (3) self-assessment tests through tests and quizzes and (4) an online discussion forum for clearing the doubts. Steps have been taken to enrich the learning experience by using audio-video and multi-media and state of the art pedagogy / technology. In order to ensure best quality content are produced and delivered, nine National Coordinators have been appointed: They areAICTEfor self-paced courses,NPTELfor engineering,UGCfor post-graduation education,CECfor under-graduate education,NCERT&NIOSfor school education,IGNOUfor out of the school students and,IIMBfor management studies. [2]

SWAYAM courses are freely available to all, students should register for the required course and after successful completion of the course, he/she will be awarded with a certificate, with a little fee. At the end of each course, there will be an assessment of the student through proctored examination and the marks/grades secured in this exam could be transferred to the academic record of the students. UGC has already issued the UGC (Credit Framework for online learning courses through SWAYAM) Regulation 2016 advising the Universities to identify courses where credits can be transferred on to the academic record of the students for courses done on SWAYAM.[2]

BODIES WORKING WITH SWAYAM ARE

School Education – National Institute of Open Schooling, National Council of Educational Research and Training

Out of School Education – Indira Gandhi National Open University

Under graduate education – Engineering Education (NPTEL), Management Education (IIM Bangalore), Consortium for Educational Communication

Post graduate education – Engineering Education (NPTEL), Management Education (IIM Bangalore), University Grants Commission (UGC)[2]

2. NPTEL (National Programme of Technology Enhanced Learning) -

A project of NPTEL, is a joint initiative by IITs (Indian Institute of Technology) and IISCs (Indian Institute of Science), in India, Under NMEICT, funded by Ministry of Human Resource & Development (MHRD)(Government of India) &, In association with NASSCOM, Powered by Google.[1]

NPTELis offering Open-Online courses, in order to provide world-class education to all the students of India &plays an important role, by - providing high-quality affordable education at large scale, developing video lectures and course content, offers online courses and conduct exams for certification, promoting the use and adoption by colleges and universities.

NPTEL portal nptel.ac.in since 2003, NPTEL Online Certification (NOC) since 2014 - Free online course in MOOC format, Current Portal of NPTEL is - onlinecourses.nptel.ac.in, Portal partner: Google, Paid proctored exam with certification, Current exam partner: TCS iON solutions, Certificate is through CCE or CEP of respective IIT, Work with colleges and universities through NPTEL local chapters, Conduct workshops.[1]

NPTEL PARTNERS

1. MHRD, India - funding the NPTEL project since 2003 and continuing to support the current project of NPTEL-MOOCs. It is because of this that NPTEL is able to keep course enrollment and learning free to anyone interested.

2. Google - partnering with NPTEL since 2007 and enabling the NPTEL channel on youTube where more than 35000 hours of video are currently hosted. Google has partnered with NPTEL to deploy, develop and maintain the portal where certification courses are currently offered -https://onlinecourses.nptel.ac.in (for free). New features specific to NPTEL have been developed and deployed to customize the platform to NPTEL's requirements.

3. Aricent - The online courses offered are currently free of cost for anyone wishing to enroll and learn, due to support of MHRD. But to earn a certificate, registering to an in-person proctored examination is mandatory that involves an exam fee. Aricent Technologies has been partnering with NPTEL since 2014 and helping candidates coming from economically weak backgrounds transcend exam fee as a barrier to obtaining a certificate by providing CSR funds. More than 50000 candidates have benefited under this scheme in the last 3 years and we hope the partnership continues.

4. TCS iON - Partner who conducts the final certification exam for NPTEL online courses.[1]

FEATURES OF NPTEL

One of the largest online repositories of engineering and technology course material and one of the most successful multi-institutional projects in the country, with following statistics - more than 1300 Local chapters, more than 1200 courses, more than 30,000 video lectures, text transcripts for more than 19,000 video hours, subtitles for more than 15,000 vide hours, 371 million NPTEL website views, 787000 YouTube subscriptions, 271 million YouTube views.[1]
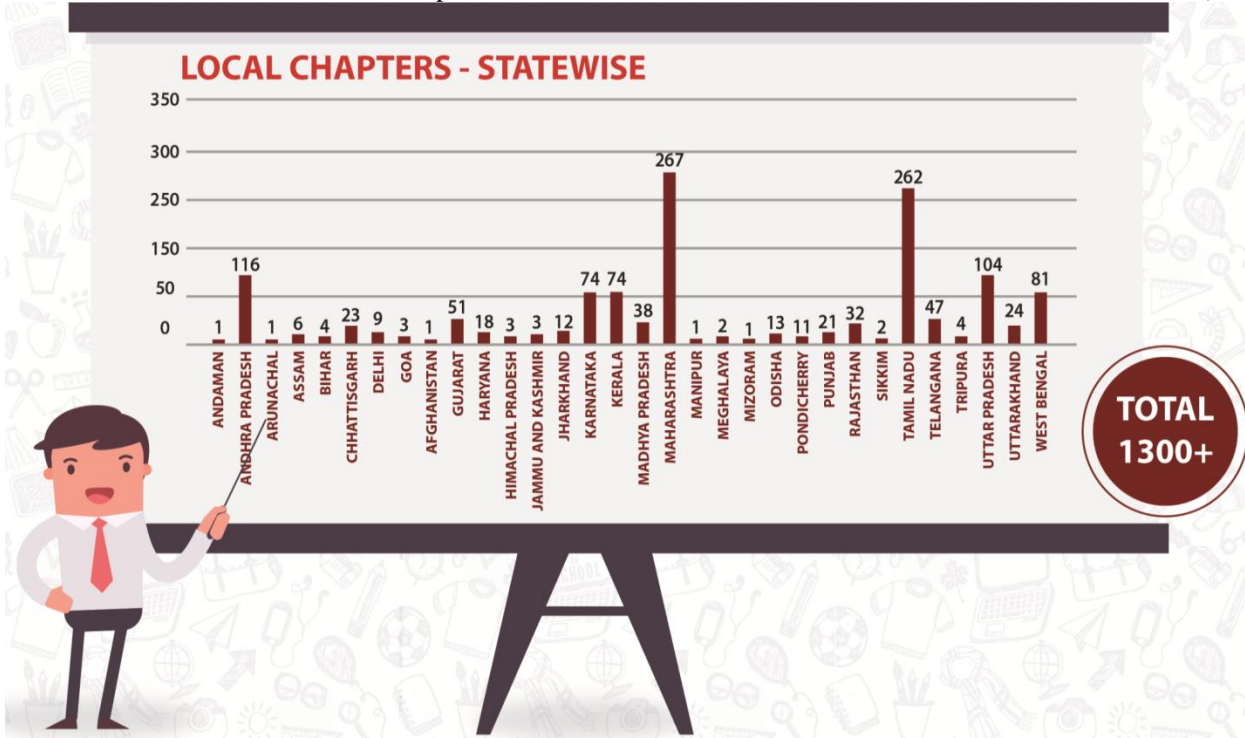
BENEFITS OF NPTEL

Benefits to students – learn from experts, learning material is free, variety of programs and courses, flexibility to learn at one's own pace, networking opprotunities, improve employability.

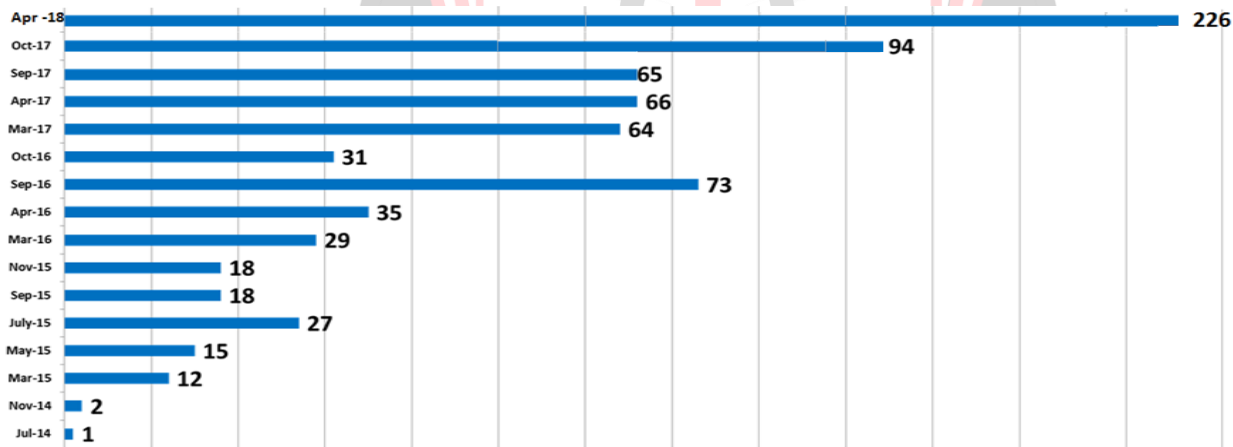Benefits to industry – skilled recruits, job ready hires, increased productivity.[1]

NPTEL Study Center– the college which want to start NPTEL, is treated and declared as NPTEL Local Chapter. College has to appoint one eligible staff as SPOC, who will be the brand ambassador of NPTEL in the same college and will take care of all the functionalities to be executed in the college on the behalf of NPTEL, as per the guidelines received from NPTEL, time to time. Like – Announcement of enrollments, Exam schedules, list of courses, and many more[1]

Role of SPOC – SPOC is a brand ambassador of NPTEL in respective college. SPOC will inform to college students and faculties regarding courses announcements and schedules regarding course enrollment, exam registration, collect registration fees and submit to NPTEL and so on. SPOC has rights to assign mentorship to faculties, select needy and eligible students for scholarships.[1]

NPTEL Local Chapters – in India – (State wise)

LOCAL CHAPTERS - STATEWISE

(Source – http://www.nptel.ac.in)

From March 2014 till April 2017 -15 exam runs; 514 courses completed, **Ongoing : 226 courses for Jan-April 2018**

(Source – http://www.nptel.ac.in)

Lerner Engagements – Lerner has to watch the video lectures 3 to 4 hours per week, Discussion forum – 1 hour per week, test your self – weekly assignment – 2 hours per week, notes, text transcripts, references, live interaction per week.

Rating and Recognition[1]

NOC: Calculation of final score –

Final score = 25% assignment score + 75% certification exam score

Assignment score = 25% of average of:

Best 3 out of 4 assignments in a 4 week course,

Best 6 out of 8 assignments in an 8 week course

Best 8 out of 12 assignments in a 12 week course

Types of certificates

Certificates are provided for students who have a consolidated score of 40% and above.

Final score between 40% -59%: Certificate type - "Successfully completing the course"
Final score between 60% - 89%: Certificate with tag - "Elite" printed at the top

Final score of 90% and above: Certificate with "Elite" tag and the gold medal printed on it.

The course toppers will have a "Topper" seal on the certificate. This will also be published on the website under each course as Toppers.

FDP Vs NPTEL Course -

	Short Term Course at other Institutes	NPTEL Online Certification Course
Registration Fee	Typically between Rs. 10000 - Rs. 20000	Zero Registration Fee
Travel	Typically involves travel and Accommodation	No Travel/Accommodation required. The entire lecture content is available right at our desktop
Leave of absence	Typically involves 8-12 days of Academic Leave	No Academic Leave required; No disturbance of regular duties Learn anytime, anywhere
Exposure to Lectures	All the participants are exposed to lectures only once	Registered Participants have complete/anytime access to video content and may watch the videos multiple times
Evaluation	No examination at the end	(a) weekly assignments and (b) end of the course examination which helps the faculty apply the learnt skills
Interaction with the Instructor	Involves interaction only during the short term course	Interaction is available with Course Instructor/Teaching assistants/Other participants via an Online Discussion Forum during the entire duration of the course
Frequency of the Offered Course	Very Rare	NPTEL re-runs Online Certification Courses that are in great demand

Table created by Prof. GVK Sharma, SPOC, GITAM University, Vizag

CONCLUSION

MOOC platform provides a flexible, cost effective, on demand learning environment to knowledge aspirants, to increase their skills and abilities as per demand of industries and society. As learning is an ongoing process, a good frameworked and recognized learning environment definitely increase the confidence of learners and create faith in employers and industry.

References

[1] http://www.nptel.ac.in

[2] http://www.SWAYAM..gov.in