

Reaching Out to the World Via Campus Wide Implementation of Moocs in Indian Education System



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Abstract— Authors touched on the issues and prospects of MOOCs integration in Indian education system via campus wide implementation. First part of paper, critically examine the education system and MOOCs in India. Next part of the paper throws light on campus wise implementation of MOOCs in India. Authors critically examine relevance of MOOCs in Indian education system and touch various issues of what role Indian society play in the implementation of MOOCs did. Next part of the paper focuses on the hurdles of MOOCs implementation in India. In the last part, authors discuss about future prospects of MOOCs in India and how MOOCs can train the teachers and how teachers can effectively deliver the quality education.

Keywords: MOOCs, Education system, online education, Smart education, Corruption in Indian education system, Train the trainers, NPTEL.

I. INTRODUCTION

According to the UGC (university grant commission, India), there are 785 recognized universities in India as on 09/Feb/2017. Out of these universities only 110 are recognized to impart distance and online education. Many institutions were banned or derecognized by UGC (university grant commission, India) because of various reasons. Corruption in the education system is one of the main reasons for de-recognition. According to Indian government agencies, less than 20 percent of Indian professional program graduates (including engineers, doctors or managers) are employable. After privatization of education, it becomes business and Indian education runs on the basis of market demand and supply.

The country having 60 percent so called educated persons with degrees in hand are struggling for their bread and butter. Quality education in India is measured on the basis of a piece of paper called degree. The degree holders who have these degrees are still not comfortable in their domains. Even after spending three to four years at graduation or post-graduation level they are not clear in their thought process nor are they able to develop suitable skills as per their domain. More than 50 percent graduates are not able to express themselves properly.

After deep analysis of these facts and figures, we can conclude that authenticity and faith on Indian degrees are degrading day by day in the society. In a country, where it is not possible to find out number of literate people any system can be abused. To overcome these aforesaid problems there should be a rigorous education system which can define that how quality education can be delivered. It should implement those tools which can enhance the skills and knowledge content in the students. In achieving this vision, online education can be a good initiative. Online education has its own merits and demerits. But in India, MOOCs (Massive Open Online Courses) can be seen as a term or word related to the scalability of open and online education. A Massive Open Online Courses (MOOCs) provides opportunity for flexible education with intervention of a teacher called mentor. It is an online course aimed at unlimited participation and open access to different courses over web, in addition to traditional course materials such as filmed lectures, readings, and problem sets. MOOCs provide interactive user forums to support community interactions between students, professors, and teaching assistants (TAs). In other word, it provides interactive user forums that help to build a community for students, professors, and teachers. MOOCs are collections of freely accessible open online resources with the help of any one can register without application process. Only Internet is needed to access MOOCs. Moreover, all users can access the same content simultaneously from anywhere at any time without any pre-requisite such as qualification, entrance exam, application form, interview, etc. In light of the explanation given above, MOOC is

Massive - enrolment numbers

Open - no mandatory qualifications

Online - fully

Course – structured

MOOC- massive open online course- is a web-based course available for free to any participant from any place in the world (Cormier, & Siemens, 2010; Kop & Carroll, 2011). MOOCs provide free access to high-quality learning materials, offered by elite universities. They are conceptualized as online learning environments in which participants worldwide can create, research, and share open educational resources (Kop & Carroll, 2011). Anyone with an internet connection from any geographical location can participate in MOOCs without the need to meet any formal entry requirements. MOOCs include lecture videos, often divided into segments of 10- or 15-minutes, and learning tasks for individual or group work.

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Since MOOCs were first introduced, there has been an ongoing debate about their academic value and significance (Conole, 2013). MOOCs proponents consider them as means for providing free high quality education. However, the opponents consider them as a passing trend that might damage higher education, including research and accreditation. Another debate relates to the way students learn and whether MOOCs can facilitate deep and meaningful learning. Mackness, Mak and Williams (2010) asserted that the more autonomous, diverse and open the MOOCs is, the more the potential for students' learning to be limited by the lack of structure, support, and moderation which are normally associated with a regular course. In order to examine this notion, a group of undergraduate students were asked to participate in MOOCs of their choice and express their learning preferences and opinions about its educational value. Information communication technologies play a big role in all aspects of education revolution. E-Learning and virtual university is a result of application of ICT in education. Users of mobile and internet are increasing day by day. Earlier, open universities and correspondence courses were used as a media to extend education to the masses. Lessons and tutorial were sent to the learners using postal services which were cheaper and faster. Several universities in India had school/ department of correspondence courses and several Open University started function in middle of the 20th century. With the advent of Internet and World Wide Web, environment for e-learning and e-education has matured and several e-learning & platforms started appearing in the education domain. These platform included Blackboard, Moodle, etc. With further improvement in e-learning & with active participation of teachers and learners, MOOCs started taking its shape and was launched. It was launched in 2008, as 'Connectivism and Connective Knowledge 2008' (CCK8). It was developed by educators Stephen Downes and George Siemens. Several MOOCs provider initiated courses on different platforms like Udacity, Coursera and edX. All MOOCs providers may have different features and functionalities but all share a common theme i.e. "students and teacher" and the interaction and collaboration of students and teachers in the process of learning. Online penetration of records is looking excellent in India and number of people using net is increasing day by day. But the relevance of this data (number of internet users) fails with the implementation of MOOCs in India. Many reputed Indian institutions are trying to implement online education or MOOCs through different ways and means. Some of the examples are

1. NPTEL, the combined initiatives of all Indian Institutes of Technology.
2. SWAYAM, a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality.
3. All other leading organizations like Coursera, edX, FutureLearn, Canvas Network, Independent, Udacity, Miriada X, iversity etc have reached in every nook and corners through internet connectivity.

In spite of all these initiatives and access of online quality education materials, impact of these initiatives is negligible. Some of the reasons are:-

1. Loop-holes in Indian education system.
2. Corruption.
3. Mindset of the people.
4. Poverty.
5. Employability after education, vocational training/education etc.
6. Recognition of the program.
7. Authenticity of degree/diploma/certificate.
8. Comparison between regular degree and online degree.
9. Language barrier.
10. Thrust of knowledge or Thrust of certificate.
11. Religious faith and beliefs.
12. Non-Customization of education system in India.
13. Non integration of MOOCs in primary education system.

In 1979, Indian government started an open school "National institute of Open Schooling (NIOS), www.nos.org" to increase reach of the education in the remote areas. But still, this organization is struggling to achieve its goal. Authors surveyed more than 2000 students, 1000 parents and 1000 other people from academics and concluded that

- a) Certificates of NIOS are not acceptable freely in the Indian society.
- b) People perceived it as certificate without credentials and knowledge.
- c) Even in remote area, people are not ready to opt unless compulsion of no alternative.
- d) Getting jobs after certification from NIOS is tough.

Unless these tags or mindset among people changes, authors have no hope to increase the acceptability of online education.

II. RELEVANCE AND IMPLEMENTATION OF CAMPUS WIDE MOOCS IN INDIA

One of the prime critiques of MOOCs is the low completion rate world wide. According to (Yang, Sinha, Adamson, and Penstein) in a study in 2013 in this context a situation of the Bioelectricity MOOC by Duke University is noted. In the university the students registered in this MOOC were 12,725, however just 7,761 viewed a video and only 3,658 of them took at least one test, 5000 completed the final exam and less than 5000 got a completion certificate.

As indicated by Coursera most understudies who enroll for a MOOCs plan to explore topic and have no intention to complete the course. In Australia (Dodd, 2013), the primary MOOCs offered by Open University recorded a fulfillment rate of over 25%, that is superior to those of different MOOCs suppliers. Edinburgh University's UK Coursera-based MOOCs affirms the dropout drift. In a conference held in Lausanne, Switzerland, in February 2014 which is relatively featuring MOOCs a few speakers asserted that MOOCs dropout could be reduced if a connection is attempted between the individuals who view the primary course video and the ones who complete the course, rather than establishing a connection between the students who enroll and the students who finish the course.

In a study conducted at the University of Michigan, For "Internet History, Technology, and Security" MOOC, completion rate was vastly improved. Different speakers contend that the low completion rates can be attributed to the fact that there is no penalty for exit or entry to MOOCs. Daphne Koller, Founder of Coursera (Kolowich, 2012) said the students who drop out early don't add to the cost of continuing the course. The most costly students are the ones who stick around sufficiently long to take the last, and also the ones who were on the way to pay for a certification. In MOOCs and instruction groups one of the greatest worries of training group is the constrained connection amongst instructors and students. A situation in India is more challenging than these advanced countries. However Relevance of online education system is dependent upon various factors like geographical area, people's need, perception about education among people, education level among citizens etc. Where the people are struggling for their bread and butter, talking about excellence in education is a mirage. People perceive education only as a tool to earn money. Education is not a primary goal or must for life in majority of third world countries. Education or learning of any content/information is based on compulsion for bread and butter. Since the introduction of distance education council by the Indian government, it is easy to get a certificate/degree without any efforts. Distance education council through its study centers, online education centers, television broadcast, radio broadcast etc. reached almost all nook and corners of the Indian territory, but system get so abused that the government of India finally decided to discontinue distance education council and constituted distance education bureau under the university grant commission. Although India has a history of thousands of years and great universities like Nalanda for great education system, but over the period of time it gets deteriorated. According to the world universities ranking, Indian universities are still struggling to get a berth in top 100. Indian subcontinent provides a huge number of professionals to the world (May called brain drain) but there is a dearth of professionals to cater the needs of India itself. The Indian education system is not meant for the knowledge, but a tool to showcase their status, tool to earn bread, etc. Indian peoples are not aspiring to be professional (like doctor, engineer, lawyer, etc.) to get knowledge or interest or for the service of the society but a compulsion for existence. In this scenario, where the majority of people are struggling for the existence, placing the successful online system is challenging and needs thorough due diligence. To understand relevance of MOOCs in India, Authors have to divide set of Indian students in various parts:

- a) School going students in metro cities (Delhi, Mumbai, Kolkata and Chennai): In this group students and school management are ready to adopt new methods of teaching – learning methods/tools. Many companies are targeting these students with different customized products like Educomp smart class, Tata classedge etc. But MOOCs is suitable for the class VIII and above only. In this age group, students are able to read, write and understand the lectures if it is delivered and mixed with fun/entertainment activities.
- b) School going students in Tier-II/Tier-III cities: Education level of students is dependent upon other factors. In some

clusters, students are very curious and knowledge hungry, but majority of parts not opt for these programs without a push. MOOCs lectures are designed only after consideration of these set of students.

- c) Students of premier higher educational institutions like Indian Institute of Technology, Indian institute of science, Indian institutes of medical sciences, Indian institutes of management, National institute of design, National institute of fashion technology etc.: Students from these groups are ready to accept knowledge from any source. Success of MOOCs is visible because of these groups only in India.
- d) Students of other higher educational institutions like state universities, central universities, etc. Need to push with the different modes.
- e) Others: These are the people who never opt for the MOOCs or any education system unless it is directly linked to their earning/jobs. Government validity and recognition is must for these groups to opt. Convincing these people is too tough.

Effective placement of MOOCs in India requires dealing with the social issues within local geographical areas. As per marketing peoples "There are many countries with in this country (India)". By this logic, following issues in the Indian society should need to address properly for the success of the MOOCs in India

- a) Number of people educated and their level of knowledge are different at different locality.
- b) Sociology and psychology of the provincial society must be taken into consideration during implementation.
- c) Current decisions are based on broader data of the whole country and that leads to the gap.
- d) Social media tools will prove to be an effective tool in the dissemination of MOOCs, but they have broader presence and little effectiveness.
- e) Placement of MOOCs contents should be customized as per the prospective set of students. (i.e. needs of the students).

Traditional learning inside a classroom is well-known; learning outside the classroom has always been a challenge for understudies and learners alike; particularly with the quickly changing innovation, media, broadcast communications, life sciences, etc. Neighborhood expert and schools ought to consider the benefit of learning outside the classroom and bolster it by incorporating it in their projects.

National and International accreditation bodies likewise should guarantee that such learning procedure is plainly demonstrated in the institutional educational programs. On viewing the above points, implementation of MOOCs in India is a challenging job. Some of the tools may helpful in implementation are

- a) Social Media
- b) Corporate Learning
- c) Target/Need based learning
- d) Customized learning
- e) Employment based learning
- f) Industry integrated learning
- g) Validity based learning
- h) Community based learning

But success depends upon the customization of these tools as per learner's needs and demands. By seeing the failure of MOOCs worldwide, it's wise to implement MOOCs content in the individual campus, according to its needs after customization of the contents. Millions of students are attending educational institutions daily, but few get a quality education with dynamic pace. But if MOOCs could be implemented through campus, it may lose its initial definition in Indian context. All loopholes in the existing Indian education system will automatically incorporate in MOOCs. Peoples in Indian metro cities have good communication skills, they have, the more paying capacity, but air and water pollution with a greater level of mental stress is one of the biggest challenges in the implementation of MOOCs. School campuses in metro cities are ready to adopt new advanced technologies, but majority of them are eyeing business in it. School campuses in Tier-II/Tier-III cities are still facing infrastructural upgradation issues. The Premier higher educational institutions have all the excess and students are reaping benefit out of it. So MOOCs implementations in these campuses are not more fruitful. Campuses of other higher educational institutions like state universities, central universities, etc. and Other institutions like community based learning, Gram Panchayats, adult education groups etc. are untouched areas while MOOCs implementation through campus. They are the most promising area for the MOOCs in India. But language and time constraints are the major issues in these institutions. Infrastructural implementation and its cost of maintenance is the biggest challenge during implementation of MOOCs in these campuses. Integration of MOOCs with regular education will make it expensive.

III. HURDLES IN ACCEPTANCE OF MOOCS IN INDIA

For the fiscal year 2017, India is categorized under low and middle income economy (LMI) by the world bank¹. But despite its categorization, India's current education system is one of the biggest education systems in the world. In India there are 785 Universities, 39071 colleges and 11923 Stand Alone Institutions. Out of which 277 Universities are privately managed. 307 Universities are located in rural area, 14 Universities are exclusively for women, 4 in Rajasthan, 2 in Tamil Nadu & 1 each in Andhra Pradesh, Assam, Delhi, Haryana, Karnataka, Maharashtra, Uttarakhand and West Bengal. In addition to one Central Open University, 13 State Open Universities and one State Private Open University, there are 118 Dual mode Universities, which offer education through distance mode also and out of which 19 of these are located in Tamil Nadu only. There are 459 General, 101 Technical, 64 Agriculture & Allied, 50 Medical, 20 Law, 11 Sanskrit and 7 Language Universities. A total enrolment in higher education is estimated to be 34.6 million with 18.6 million boys and 16 million girls. Girls constitute 46.2% of the total enrolment. Gross Enrolment Ratio (GER) in higher education in India is 24.5%² (Fig.3), which is calculated for 18-23 years of age group. GER for male population is 25.4% (Fig.1) and for females, it is 23.5% (Fig.2). Fig.1 below indicates GER in higher education for the male from 2010-11 to 2015-16. It is

clear from the figure below that the highest GER is in the year 2015-16 (25.4%).

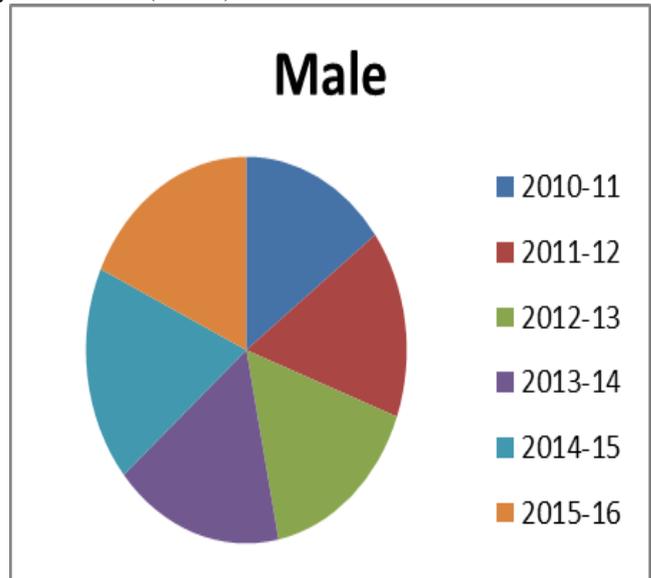


Fig.1: GER for male population

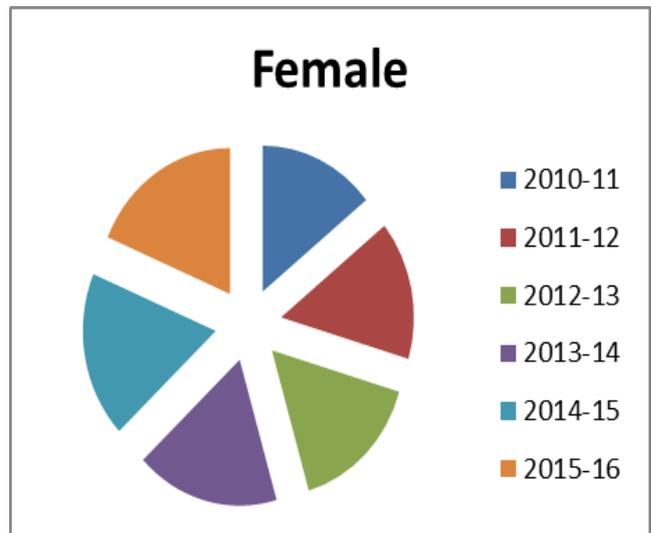


Fig.2: Indicates GER in higher education for the female from 2010-11 to 2015-16. It is clear from the figure that the highest GER is in the year 2015-16(23.5%).

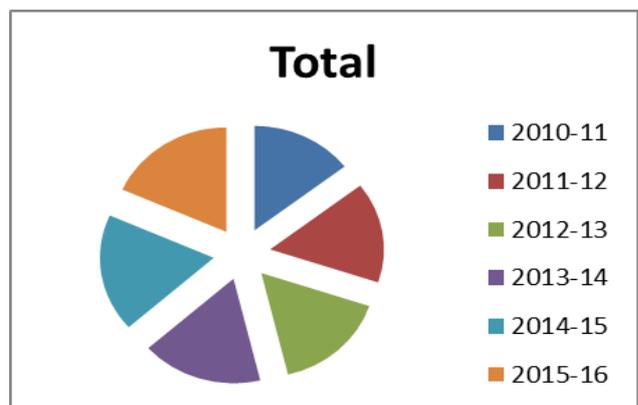


Fig.3: shows All India Gross Enrollment Ratio (GER) from the year 2010-2011 to 2015-2016. It is clear from the chart that 2015-16 has the highest GER (24.5%)

As of now, India is second largest populated country in the world and also has secured second position in terms of students and scholars pursuing higher education. It is expected to be number one by 2030. The present scenario of higher education system in India is not sufficient enough to cater the requirement of this growing demand. The traditional methods of higher education which imparts education in regular brick and mortar institutions and the present infrastructure would not be able to cater such a huge inflow of potential learners. It becomes the requirement of time that an effective Information and Communication Technology (ICT) should be implemented in Education system so that it can be used effectively to meet such a high demand in the near future. In the recent times, Information and communication Technology (ICT) has brought a massive change in the higher education system with the initiative of MOOCs. It is conceived with the vision of providing global platform for sharing knowledge and resources among the large number of learners. However implementing MOOCs is a bigger challenge, especially in a developing country like India. Following hurdles are required to be addressed before a successful implementation of MOOCs:

i. **Credibility of MOOCs:** The credibility of MOOCs is a biggest challenge especially in developing countries like India. It is a subject of debate. It depends on the accreditation given by the university/ Institutions offering MOOCs. Even if the university verifies MOOCs by offering a certificate on making a payment of a petty sum, but the credibility is challenged by the employers. Employers give privilege to the traditional form of education system and degree earned through it. There is a doubt regarding the approaches through which the education is imparted. In traditional education system a learner has to take admission and attend regular college for the fixed time period, submit assignments, write exams, interact with the subject experts on a regular basis whereas in the case of MOOCs, learner has to complete the course online without any formal setup, as it requires a technological infrastructure which somehow deter the very basic motive of education. In MOOCs, learner has to complete a pre- determined course online and has to give an Online Test. To make MOOCs more successful, the institutions need to make it more interactive for the learners and they also need to make their evaluation system more rigorous.

ii. **Technological Infrastructure:** Another major challenge for MOOCs in a developing country like India is technological infrastructure. As MOOCs needs a strong infrastructural platform to be executed effectively, developing countries like India is a way behind on this front. In developed countries, the learners are using 7G /8G Internet speed and have a strong bandwidth, whereas India is struggling to use even 4G internet speed properly, and that too in urban areas . In rural areas, the internet is still working on 2G/3G technology based spectrum. MOOCs can be implemented in a better way if the learners can use mobile phone as a mode of learning device. As per the report 77% of urban internet users and 92% of rural internet users consider mobile as the primary device for accessing the Internet. However the pattern of usage is largely different in rural and urban India. In urban India mobile

technology is largely used for social networking, online shopping and emailing. Whereas in rural India it is basically an enjoyment in the form of videos and audios.³

iii. **Diversified needs:** India has a diversified culture so its needs are also diversified. In India diversity exist on the front of physical features, racial diversity, linguistic diversity, religious diversity and caste diversity. On the basis of these diversities people have different requirements based on their caste and culture. Among the above stated diversities linguistic diversity is the one which affects the education system most. The census of 1961 listed as many as 1,652 languages and dialects. Since most of these languages are spoken by very few people, the 8th Schedule of the Constitution of India recognizes 22 languages. The people in different part of India prefer to promote and work in their own language, like in Northern India Hindi is promoted and in Southern India Telgu and kannada languages are promoted which forms a hurdle for the implementation of a common education system for the masses like MOOCs. The learners prefer to pursue a course with their choices of language, which make MOOCs uniform implementation difficult. The subject expert also faces the difficulty in discussion with the learner because they believe to follow a same language for all the learners on the MOOCs platform. In campus wise implementation of MOOCs, the language can be opted as per the local usage, but that will defeat the very purpose of MOOCs. It will help the learners who are from that region and community only. As of now English is acceptable as a common language in urban India only, however it will take a decade to reach at the same level of adaptability in rural India.

iv. **Financial Aspect:** Finance is one of the major components of the success of every system, whether it is education, health or public transport, etc. It plays an important role in the implementation of MOOCs. The campus wise implementation cost of MOOCs is very high, which may not be fit in the profitable business model of many institutions. The financial cost of MOOCs depends on how it is going to be operated i.e., uses videos or by the subject expert directly running the MOOC. Each option has a definite cost, which is the important factor in decision making for a campus and MOOC providers. It is the major reason that many small institutions and campuses do not promote MOOCs.

v. In this scenario government should provide incentives and schemes to promote higher education and should be more liberalized in allowing the International educational institutions and Universities to operate MOOCs in India.

vi. **Quality Content:** Another area of concern in the implementation of MOOCs is its content. In case of MOOCs, there is a question on the content offered by the subject expert to the learners. The campuses and institutions should be encouraged to build quality content for the delivery, to the learners through MOOCs. Free quality e-content is an essential element for the successful implementation of MOOCs. In India the content offered in MOOCs is only available in a few areas like Science, Social Science, etc.

that too in the English language which may be a hurdle for many of the learners. Other areas like engineering, agriculture, communication skills, teacher training, etc. should also be included to make it more interesting and challenging. In India the content should be in different regional languages so as to provide ease to the learners.

vii. Teaching Pedagogy: In India the people still rely more on the traditional education system, where teacher and student relationship exists and there is one way communication from the teacher and the student will receive it as, it comes. This learning environment should be shifted to Flip Classroom environment. In flip classroom, there is a two way communication between the subject expert and the learners. It is activity based learning environment where the lectures are delivered on the online platform outside the class rooms, learners discuss online with the subject experts and carry out research themselves. In India various institutions and campuses should carry this model of learning, but the adaptability of this pedagogy depends on other factors like Infrastructure for online lectures, willingness of the learners, motivational level of learners etc.

viii. Instructor Competencies: Subject experts are those who are actually interfacing with the learners in MOOCs. The competency of the teachers is a matter of concern. He should be well equipped with all of the skills like communication skills, interpersonal skills, etc. used in the interaction with the students. In India the smaller institutions and campuses hire those teachers who are not highly qualified and are not competent enough to deliver in higher education. The main reason for this type of recruitment is the cost involved in the selection of highly qualified and competent teachers. Another factor which affects the competency of a teacher at higher education is the period given to the teacher in developing good quality content. Practically in India the teachers at colleges and schools are over-burdened. They are struggling to allot their time in teaching, research and publication. In these conditions, it is not viable to expect much from the instructors at a higher level of education, where they can contribute much in the development of the high quality content for the MOOCs.

ix. High Dropout Rate: Students pursuing MOOCs lack in motivational level and lead to the high dropout rate. It has been witnessed that the registration in MOOCs is very high, but due to lack of motivation the effective participation of the learner's falls and it leads to the failure of MOOCs at large. In India the campuses and colleges offering MOOCs are not able to approach the students, the main reason for which is the more importance is given to the education and degrees earned in the traditional brick and mortar universities. The students enroll themselves in the MOOCs courses because of its credibility, employer's recognition, accreditation and quality content. But later on they find these courses less attractive and leave it in the middle. Another reason for the high drop -out is the lack of regular interaction between the teachers and the students. Campuses and institutions running a MOOCs platform, must over- come of these hurdles to increase the participation of the students and reduce the dropout rate.

IV. CONCLUSION

In a developing country like India, where major population is residing in rural areas and the people are deprived of good quality of higher education, MOOCs can be a solution to this problem. Through MOOCs a good quality higher education can be offered to rural India as well. MOOCs can do wonders in the field of education as the government supports the same vision in the years to come. It can be successfully implemented with a prerequisite, that there should be competent teachers, who can adopt and deliver on this platform. The Indian Education system is broadly divided into two parts Government education system and privately managed educational organizations. After globalization in India many businessmen came into the Indian education system after identifying the enormous potential of business here. Educational institutions were mushroomed like anything between 1990 to 2016. In the name of social service they reaped huge benefits and for them education is an attractive business. Demands of teachers in these institutions were growing by leaps and bound. Without check and balances of quality of education, India has been producing millions of professionals, during this period through these institutions. Now government of India is realizes that 60 percent of professionals from these institutes and campuses are not employable. For the betterment of the educational system, the Indian government must check the quality of the educational system in India by framing strict rules for entry and exist in the system. In the recent years Indian government has been primarily focusing on skill development. It is emphasizing more on, skill based learning so that the students can acquire skills and hand-on experience to become more employable. New skills are required in the industries to match the demand and competition within the talent pool only. This is possible in two ways:

A. Trained the teachers

B. Industry expert as teachers

There is always a gap between what the industry demands and what campuses and Institutions provides. Teachers should be trained perpetually on a regular basis so that they can inculcate and developed the skills required for the industry. MOOCs would be one of the methods to train these teachers so that they can deliver quality education to the students. The problem lies in the awareness and the educational gap.

Teachers who are trained in MOOCs would act as a facilitator for the students. The student will learn on MOOCs, and if they would face any problem, then teacher will help them. Here the teacher's role has been shifted from purely as a teacher to a 'facilitator'. In this scenario MOOCs can be helpful in two ways:

a) MOOCs as teacher's education system: MOOCs can be used as a medium to train teachers. They can use MOOCs to acquire knowledge and learn new skills. At a primary level and at lower secondary level, TESS-India⁴ (Teacher Education through School-based Support in India) is working along with the Indian government to use Open Educational Resources (OER) to achieve transformational change for educators and teachers.

On the same lines it should be there for higher education as well. The professional development of the teachers is costly and time consuming process, should be done in a best possible way to enhance learning and teaching. There are many other ways through which MOOCs help the teachers to train themselves⁵:

- 1) Cost: As the main constraint for teachers is money. But most of the MOOCs are offering free courses or charge nominal fees for the certification which everyone can afford.
 - 2) Flexibility: Another important feature of MOOCs is its time and location. It can be used any time and at any location as per the comfort level of learner.
 - 3) MOOCs should be designed in such a way that it facilitates the teachers to practice, implement, ask questions and work as per their schedule/comfort.
 - 4) It can be used as a resource with the traditional education system.
 - 5) The content offered in MOOCs should be available for different subjects and topics in different regional languages, so that it can ease the work of an instructor.
- b) MOOCs as a teacher's tool for the quality delivery of education: MOOCs cannot be successful in providing practical exposure and not viable for many streams of study like Science, Engineering and Accounting. To overcome these hurdles one can integrate MOOCs with Online education system, when theoretical and preliminary part of the study should be taught with the help of MOOCs and practical exposure could be provided by the proper physical interface between the learner and the subject expert with the help of online mode.

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