

# Initiatives of Digital Transformation in Higher Education System

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**ABSTRACT:** Education should be acquired from the cradle to grave. Higher education occupies the apex of educational pyramid in the formal process of education. Generally it comprises of three stages –Graduate, post graduate and research programme. Universities are a center of higher education where teachers play an important role in ensuring high quality of education by developing their students as global citizens for the outside corporate world. Teachers are the developers of positive and progressive society in any country. The courage and dedication for developing high performance work system can only be achieved if teachers would be willing to give their best.

Globalization increased the demand for education in two parts. The first is the economic rising payoffs to higher education to global, science based, knowledge and intensive economy make university training more of a necessity to get good jobs. The second part is socio-political, demographic and democratic ideals increase pressure on universities to provide access to groups that traditionally have not attended universities. Knowledge society, information and communication technologies, the market economy, trade liberalization and changes in governance structures elements of globalization have a significant impact on Indian higher education. India's higher education sector has failed to map the future demand for various skills, Global Competition and Competitiveness as higher education system in India suffers from acute paucity of funds, lack of autonomy, burden of affiliation. Besides these higher education has been affected by-politicization, poor quality of intake, heterogeneity of student population, communication gap between universities and colleges, unsystematic growth of institutions, managerial inefficiencies, overcrowded classroom, wastage in instructional hours, poor course design, inadequate student service, inadequate material resources, inefficiencies in teaching, lack of training facilities for educational administrators and teacher.

Now the students have easy scope to acquire higher education because a lot of colleges and universities are opened for higher education. But contribute to national development urgent steps will be taken to protect the system from degradation. Therefore along with quantitative expansive of education quality must be maintain in relation to the global market. We should encourage foreign universities to come to India to setup in collaboration with existing Indian institutions, colleges to promote global research activities for sustainable development. It will also improve our educational standards as well as solve the burgeon problem of enrolment. Opening Indian higher education to foreign competition will benefit us and boosts our growth.

The discussion is mainly based on the following concern:

- To understand education system in India
- To know higher education system
- To understand the role of globalization and its impact on Higher education
- Motivate the student for higher education
- To learn about pedagogy training
- Discussion about the management mechanism
- Platforms provided towards higher education
- Responsibilities of teaching assistant
- Financial support provided by the organization

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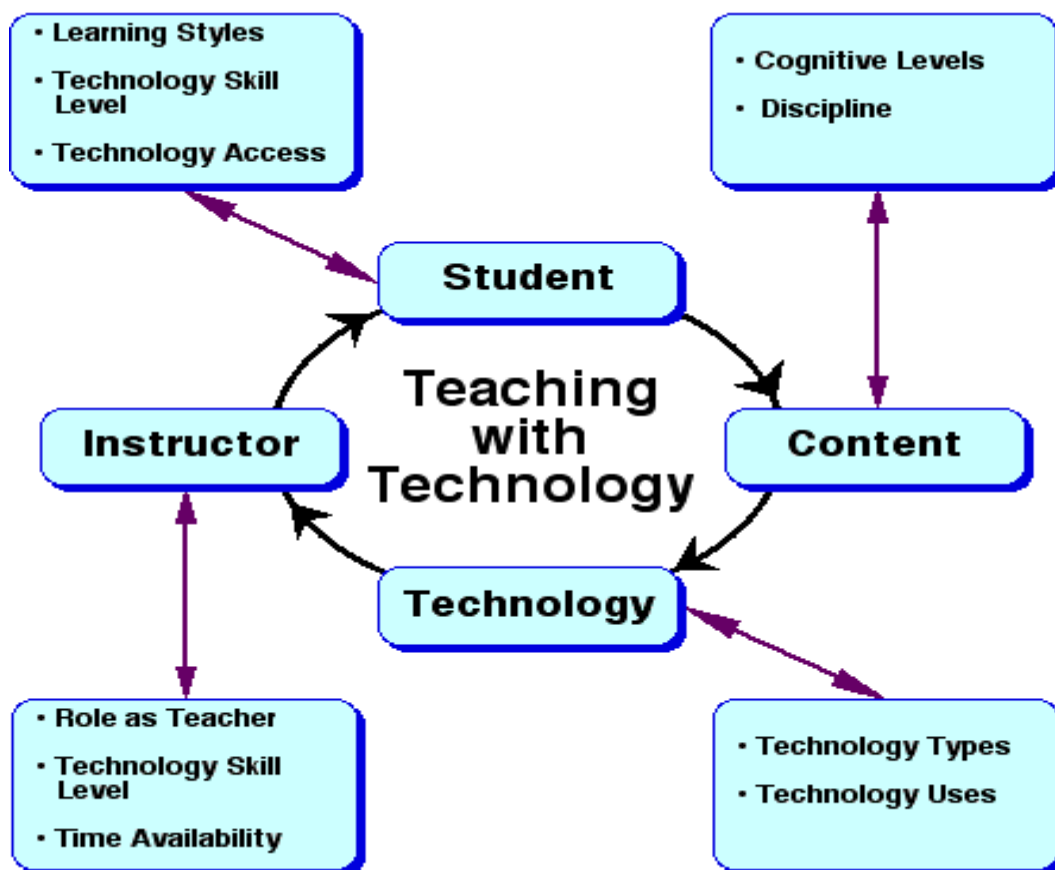
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## I.INTRODUCTION

Internet helps in democratization of education, by facilitating everyone to access knowledge that has been accumulated by mankind, internet gives a very flexible access to any kind of data, based on the needs of the learner. I can be skilled-based, knowledge-based, attitude-based learning and learning through internet can have impact on all these. This has resulted in a facility, wherein learner can access any content at any time, place and pace based on their convenience. Many educational organizations have been offering various courses via web in different formats.

Modular Object Oriented Dynamic Learning Environment (MOODLE) is an important learning management system through which Massive Open Online Courses (MOOCs) are structured. An e-conference through MOODLE facilitates group discussion. It also helps to update assignments and hence proves to be effective for interaction and comprehension. The usual problems of group meetings can be avoided through MOODLE, but it does have a drawback, wherein nuances in speech and body language are missing. In spite of this, it still serves as a good tool for effective communication.

**TEACHING:** Teaching is undertaking certain ethical tasks or activities the intention of which is to induce learning”.



## II.ABOUT MOOCs

Massive Open Online Courses, MOOCs are free courses. They are accessible and flexible. They are delivered through third party platforms, utilizing distributed peer learning and broadcast. This creates a new relationship between students, institutions, academics and educational technology firms. Higher Education experienced the first MOOC in 2008 and this offered virtual education option to those who were interested. MOOCs and ordinary courses do have similarities as



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directed programs of study and who are interested in knowing more. Prospective students are the ones who want to explore different course options to assess if it could be a potential fit. High enrolments are from India in technology and science courses. For example, after US, the largest enrolment for the Artificial Intelligence Planning MOOC offered in 2013 by University of Edinburgh came from India, backed up by Brazil, Spain, the UK and Russia.

## VI. COLLABORATIVE E-LEARNING

Another appealing pedagogical approach is the collaborative E-learning. It comprises of a didactic model integrating multimedia, collaborative tools and assessment. It involves educational activities given in two sets. Set one is proposed by the teacher, and students need to review the multimedia. Set two invites the students to create their own multimedia resources and also assess the ones created by their peers. This obviously brings out collaborative communication among students. It also leads to dynamism, motivation, creativity and enhanced learning for students and teachers. One of the drawbacks of collaborative E-learning is that, it stresses on group work and group discussion, due to which individual learner support is neglected as a whole.

## VII. TYPES OF MOOCs

### cMOOCs

Initially, MOOCs were guided based on specific pedagogical approach. Later this phenomenon started spreading out without following the pedagogy. This led Siemens in 2012 to distinguish between connectivist massive open online courses, viz. (cMOOCs) and Coursera and edX massive open online courses, viz. xMOOCs. Thus cMOOCs were developed with aim of exploring the pedagogy that takes the advantage of Web 2.0 for learning. The pioneers of cMOOCs, viz. Siemens and Downes articulated some psychological assumptions that were known to be a new learning theory called connectivism. This led to the proposal of the pedagogy in 2008 that gave birth to the first MOOC<sup>35</sup>. Thus cMOOCs represent highly distributed peer learning and is a part of the open educational resource movement. cMOOCs are based on connectivist ideals. It is less structured and influenced by learners' empowerment. It provided access to learning materials to individuals who might wish to learn<sup>31</sup>. The cMOOC is an independent start-up set up by academics. Various online resources are the focal point for specialists with shared interest. The course has intermittent lectures and assignments. The main principal mode is through peer networks. These networks share knowledge and experience through a range of online resources.

### xMOOCs :

The second type called xMOOCs is given mainly by campus-based Stanford University or Massachusetts Institute of Technology. This has come up as an evolution of institutional strategy towards digital technology and on-campus teaching. These courses have automated assessment, video lectures, supporting message boards and resources. Both cMOOC and xMOOC accommodate their growth by limiting synchronous learning opportunities and personalized academic feedback to students. Though the courses have a weekly structure, the management system permits to allow the students and educators to share and complete their exercises at their own pace. Both models provide feedback and assessments and emphasizes on participation in the course. Automated peer assessment exercises are made available. Specifically xMOOCs uses automated multiple choice quizzes as exercises at the end of short video exercises. This helps in knowledge retention and in final assessment. Peer learning is highly made use of, by both the models for course delivery. cMOOCs consciously restructures the bond between course leader and students resulting in good feedback from participants who have good professional knowledge and creativity. In xMOOC, it is a hierarchical relationship wherein an expert dissipates knowledge to a relatively inert class. However, xMOOC also considers the personalized feedback from the peer groups.

Both models differ in emphases in educational objectives. xMOOC is of broadcast type that allows the advanced learners to understand and move ahead in a particular field. It does this by helping the learners gain all the propositional knowledge that is needed to move ahead. This might not be suitable to all and also not be representing pedagogical practice, but is very much flexible, accessible and scalable to vast diverse students. cMOOC is of distributed type that is more suitable for creative subjects or advanced professional fields wherein sharing of professional practice is encouraged. This model stresses on skills required for professions that has been attained through

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digital technologies. xMOOCs are not pedagogically driven and they are mainly based on behaviourist psychology. xMOOCs is more unidirectional in approach. They are structured around conventional lecture formats and are delivered through proprietary learning management platforms<sup>34</sup>. In other words, xMOOCs are also called Ivy League-type, university-run, venture capital-funded MOOCs with comparatively fixed and prescriptive curricula. Some common examples are Coursera, Udacity and edX MOOCs. Coursera (<http://www.coursera.org>) provides over 300 courses with quizzes, assignments, videos and opportunities to interact with fellow students. Subjects offered are computer science, life sciences, biology, humanities, economics, finance, business and management, food and nutrition and social sciences. It is funded by Kleiner Perkins Caufield and Byers and New Enterprise Associates. Proctored examinations are provided in partnership with Pearson VUE<sup>29</sup>. Coursera has more than one million participants as learners. Learners are offered with explanations of online learning concepts and include peer assessment and mastery learning<sup>30</sup>. It is a for-profit company run in collaboration with Universities. Coursera contributes providing hosting and user services and Universities provide content. The profits are divided. Profits are mainly from selling verifiable certificates of completion and course transcripts. The cost for this is around 50 dollars per course. Udacity (<http://www.udacity.com>) is a free “digital university.” It has been set up by Thrun, Research Professor of Computer Science, Stanford University and Vice President of Google. It is a for-profit company funded by Andreessen Horowitz, Steve Blank and Charles River Ventures. Proctored examinations are provided in partnership with Pearson VUE<sup>29</sup>. It offers 22 courses as beginner, intermediate and advanced courses in statistics, physics.

## VII.MOOCs IN MEDICAL FIELD

Medical schools seem to be more cautious towards the MOOCs courses. Till date no pre-medical program or medical school seem to have opted to give academic credit for a MOOC. Lecture style didactics or content delivery using web is just one small part of overall learning experience in medicine, as medicine is more about relating to patients that cannot be taught through MOOCs. Teaching relationship skills with video lectures and discussions would be very difficult. One beneficial area affected by MOOC is Continuing Medical Education, that is a need for most physicians and it is helpful for them to participate in MOOCs at their convenience. Also the industry funding for CME activities has declined and fewer physicians have budget to travel. So MOOCs seems to be a replacement for a regular CME courses. Another area of benefit of MOOCs in medicine is the patient education by helping patients to observe videos before physicians’ appointment. This makes the patient encounter to be more fruitful in clarifying their doubts and questions and help in making informed decisions. Patient education materials through MOOCs helps in standardizing what patients are being taught and so help in eradicating variations among providers. Another advantage of has done the same with Coursera courses. This form of integration is attracting more acceptance than others, as it helps the campus faculty to have high degree of control over course content and credit granting. However, this had some objections from some faculty.

## IX.CONCLUSION

Here, we discussed about the digital based classroom. E-learning is greeted all over the world, especially for academics, as the benefits are very satisfying. Compared with face-to-face learning, E-learning is very effective due to its benefits like Moodle, NG-eBook, collaborative E-learning, m-learning, cloud computing etc. Almost all the countries are involved in developing, implementing and upgrading E-learning, at various segments of education and at various levels of development. The sharing of ideas and exchange of E-learning programs between countries is not gaining momentum to a greater extent. This will definitely save time, energy and money for all the countries. The errors can be avoided and good ideas can be implemented. The above studies show that each country has concentrated in improving different fields of higher education and so when these ideas are exchanged, definitely there is a considerable, overall, fruitful growth and benefit for all.

## BIOGRAPHY

- Garrison DR. E-learning in the 21st Century. London; 2011.
- Herrington J, Reeves TC, Oliver R. A guide to authentic E-learning. New York: Routledge; 2010.
- Clara M, Barbera E. Learning online: Massive Open Online Courses (MOOCs), Connectivism and Cultural Psychology. Distance Education. 2013.
- Baggaley J. MOOC rampant. Distance Education. 2013

## REFERENCES

1. [www.iimb.ernet.in](http://www.iimb.ernet.in)
2. [www.usief.org.in/fellowship/fellowship-for-indian-citizens.aspx](http://www.usief.org.in/fellowship/fellowship-for-indian-citizens.aspx).