

New Media Technologies in Higher Education: Challenges and Present Scenario in India

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Abstract—Today education plays a vital role in everybody's life. Everybody needs quality education and the emphasis on the quality education is increasing day by day. After the invention of Information Technology, it reconsiders and readaptsto the changing environment of teaching and learning. Everyday new technologies are practiced in the classroom by the teachers to make the teaching easier and student centric. New media technologies have taken education to the new level. New media technologies are bridging the gap among students and teachers. Now a day, many universities are slowly using different new media technologies in class teaching. Teachers and students are slowly adapting to this shift. The new media technologies includes social networking, flipped classroom concept, mobile learning, using the massive open online courses, e-libraries, web 2.0 technology, virtual laboratories, machine learning, near field communication, 3D printing technology and maker space. As new technologies are growing in the rapid phase there is a digital divide between students, teachers and the university administration. In order to cope with the fast pace of students in understanding the technology, teachers will have to update different technologies fast in classroom teaching.

This conceptual research paper mainly deals with present scenario of new media technologies in the higher education in India and also the challenges faced by the teachers using new media technologies. It also focus on the more work has to done to foster on the adaptability on teachers.

1. INTRODUCTION

Education plays a vital role in the today's life. The quality of education is increasing day by day. As we know the motive of the teachers is to prepare today's students for tomorrow world. In today fast moving world we must recognize that technology is one of the foremost integral part of society. Teachers are slowly learning how to use technology and find creative ways to include it in their classroom lessons. Many New Media Technologies are developed and adopted by the teachers for teaching in the classrooms. These New Media Technologies helps to develop the collaborative learning and also bridge the gap between the students and teachers learning. Many developing countries are into the verge of the fostering these technologies soon. New Media Technologies have taken the education to the new level. In India, many universities are practicing to implement these technologies in the course

curriculum. According to NMC horizon report on Higher Education 2014^[3], many institutes are progressively experimenting with minimum technologies used in classroom teachings. New Media Technologies includes social networking, flipped classroom, mobile learning, using massive open online courses, e-libraries, web 2.0 technology, virtual laboratories, machine learning, near field communication, 3D printing technology and maker space.

Presently in India, many schools are using the new media technologies and developed a teaching pedagogy for classroom learning. Similarly many private universities are adopting through these technologies. For these teachers plays a very vital role in adopting.

Using New Media Technologies teachers can indulge activities in the course curriculum, conduct formative assessment, develops multiple mode of thinking and produce innovative teaching styles, monitors quality, make innovative timetables, build strong networks and learn through many events. Other than benefits there are challenges the teachers face. This paper mainly deals with the present scenario of the use of new media technologies in Higher Education in India and challenges faced by the teachers using these technologies.

2. PRESENT SCENARIO OF NEW MEDIA TECHNOLOGIES USED IN HIGHER EDUCATION IN INDIA

Developing countries like India are slowly and progressively converting their teaching pedagogy using new media technologies. Many universities have started a change in the concept of teaching. In the olden days, mostly the teaching is done using the traditional mediums such as blackboards. As the technology was evolved, mostly teaching was done using of smartphones, computers. Many teachers have changed the focus on the using these devices into the classroom teaching. According to Mapping Digital Media Report^[4], in the mobile sector there are around 900 million users and out of these 900 million there are about 40% of users are mainly teachers and

students. The internet connections are also progressively raised to the 60% among the mobile phone users. Every teacher who teaches either in school, university or other institution are using smartphones professionally or personally. This paper discusses which new media technologies are used and in the developing stage in Higher Education in India.

3. MOBILE APPS IN TEACHING

Now days every student and teacher has smartphone on their hand. Today's smart phones are like Personal Computers and have the touch effect. The internet connectivity used in the smartphones allows users to stay informed and has unlimited services available on finger tips. According to McKinsey Report on Transforming Learning through Education^[5], mobile learning would grow to 45 per cent more by year 2020.

Many universities in India are changing their teaching pedagogy and have focused on using of mobile learning in the teaching. Other than schools, universities have also started teaching through this technology. Jawaharlal Nehru Technological University, located in Hyderabad started teaching English in the Engineering Courses using mobile apps. The teachers found this as an effective way of teaching.

4. FLIPPED CLASSROOM CONCEPT IN TEACHING

Flipped classroom is a practice of active learning model that inverts traditional lectures. The concept is before coming to the class students listen to the lectures online on their convenience. Flipped classroom helps to increase the collaborative learning and also helps to keep large classes engaged in active learning. The idea was first originated in high schools in the West and slowly this practice has developed to adopt in India.

In India, major Business-Schools are increasingly flipping the classroom and The Indian School of Business is the one of the first management institutes in India which introduced the 'flipped classroom' to teach their students in various subjects. The study found that the student participation in the classroom has increased progressively along with the teachers. The same technology is also used by SP Jain Institute of Management and Research to teach executive MBA programs.

5. TABLET COMPUTING IN TEACHING

The Tablet Personal Computer is the next foremost innovative device which is used in educational sector. It helps the faculty and students to integrate their teaching and learning environments. The Tablet Personal Computing allows faculty members to create digital materials for their classes with much ease. The major benefits of the using tablet computer is that it acts as interactive whiteboard, it helps to store the data, the content can be accessed again and again, it helps to build

interaction with students, it can be carried anywhere and anytime.

Many schools in India are adopting to use this technology in classroom teaching. This not only reduces the burden of carrying books to class and allows to access freely. In higher education, Indian Government has promoted Akash Tablet that can bridge the digital divide across the country. But still a major work has to develop to reach to Indian villages which include better broadband connectivity and better power supply. Lack of quality staff is also a major foothold for using this technology.

6. MASSIVE OPEN ONLINE COURSES USED IN TEACHING

MOOCs are massive open online courses, Many faculty members, administrators, researchers and students found that MOOCs made them to pursue multiple goals. MOOCs are mostly "online," they are mixture of video lectures, packaged readings, chat-discussions, and periodic computer-scored tests. Many foreign universities are providing these online courses either free of cost or on paid basis. Now days, the number has increased gradually in India which is up to 67%.

New Media technologies have the potential to dramatically transform Indian higher education. A model was yet to developed where massive open online courses (MOOCs) that are developed locally and combined with those provided by top universities abroad could deliver higher education on a scale. As we know, University enrollment in India is huge and growing, MOOCs plays a vital role in the up gradation. Various Indian Institute of Technology universities had transformed the content into the digital and organize the various online lectures to the students and others. According to research article published in International Journal of Engineering Research And Applications^[8], it was found that 73.3% of MOOC professors own their course content and also have 10 years' experience or more. 71.8% taught a MOOC to make higher education more accessible.

7. WEB 2.0 TECHNOLOGIES

After the invention of internet, World Wide Web has enhanced the creativity, sharing and securing information and also increases the collaboration among the many people in the world. Web 2.0 technologies includes social networking websites for example Facebook, Twitter, Myspace, Twitter, video sharing websites such as you tube, vimeo, wikis, blogs, social bookmarking, podcasts, e-portfolio and micro-blogs. In education, web 2.0 technologies had played an important role like sharing information through blogs, Facebook, Youtube, sharing views, helps in reviewing the content, create your own websites. Now days, many universities are changing the course structure and inculcated the teaching pedagogy by using web 2.0 technologies.

According to one study done in NCR region in India^[1], it was found that many professors think web 2.0 technologies helps in the broadening the faculty perspective, drew a collective knowledge, facilitates instant problem solving and it also helps to improve knowledge sharing and collaboration. Still a lot of work has to be done in implementing the web 2.0 technologies into other universities in India.

8. 3D PRINTING TECHNOLOGIES IN HIGHER EDUCATION

3D printing is one of the new dimensions in the education. 3D printing is a process by which any 3D object of any shape is made from the digital software. This method is vastly used for the traditional machining techniques. In education, it can be used for various applications in architecture designing, engineering, fashion designing, jewellery designing. India will slowly adapt this technology in the education and yet a lot of research has to be developed in this field. Many private universities are slowly adopting this technology. Manipal University became the first university to adopt this technology in the education.

9. CHALLENGES FACED BY TEACHERS USING NEW MEDIA TECHNOLOGIES IN HIGHER EDUCATION

As discussed earlier, Higher Education in India is slowly adopting to new media technologies and also teachers and students are adopting these technologies. Every day a new technology is invented and students are very quick to adapt this quick change. There are many benefits of using the new media technologies in the classroom teaching, but some of the challenges still make the digital divide between students and teachers. These challenges are professional development of teachers, resistance to change, lack of awareness, delivering informal learning, failures of personalized learning, lack of rewards for the teachers, low digital fluency among faculty members and increasing new teaching innovations.

10. LACK OF PROFESSIONAL DEVELOPMENT FOR TEACHERS

As there are new advancement in the technologies, teaching has become very smooth and collaborative among teachers and students. Other than this one of the major challenges still exists that teachers are lacking professional development of using these new media technologies. It was found that teachers feel stressed to integrate new technology into their classrooms because the teachers are not prepared or unable to understand new technologies. It also too often happens, an institute or university make mandatory of using specific technology in the course curriculum, teachers are left without the professional training, So a proper model has to develop how to the professional development for teachers should take place in updating new media technologies.

11. RESISTANCE TO CHANGE

The teaching done by the aged professors. in many universities in India. Generally the professors are very slow to upgrade themselves to new media technologies or they are resistance to change. Resistance to change includes ambiguity about the users, jobs, threatens to modify established patterns of teaching and relationships among the faculty members. But in the most important stage is comfort with status. According to many researchers, teachers and school leaders often feel technological experimental should not be in the organization but outside the organization.

12. LACK OF AWARENESS

Everyday a new technology is invented and practiced in the institute or university by the administrators or teachers. Many teachers are not aware about these new media technologies adopted. This is happening due to lack of update and involvement of teachers in practicing. Awareness training sessions and workshops has to be conducted to make aware about the technology. Administrators has to develop a model for creating the awareness campaign in the university,

13. DELIVERING INFORMAL LEARNING

Teachers generally believe that traditional way of teaching forms a formal way of learning among students. They believe that technology put stop to the formal learning and believe that rigid lecture and text models of learning are failing to challenge students to experiment and engage them informally. New media technologies like flipped classrooms allow blending of formal and informal learning, which among teachers is very adamant to change.

14. FAILURE OF PERSONALIZED LEARNING

There is gap between technologies available, personalized learning and instructions to be followed by the teachers. Many teachers seem to need the personalized learning as a formative step but they are not provided sufficient tools as they need to accomplish it by the administrators. Universities need to understand this as prior biases.

15. LACK OF REWARDS TO THE TEACHERS

“In the global education marketplace, a university’s status is largely determined by the quantity and quality of its research,” the Horizon report^[3] says.

Universities need to adapt the strategy that rewards teachers for updating the learning through technology. As we know online learning plays an important role in upgrading the knowledge in the higher education and this should be a part of the performance appraisal system for the teachers. If this training is implemented then the professors in the higher

education will get familiar with teaching techniques that facilitates learning.

16. LOW DIGITAL KNOWLEDGE AMONG TEACHERS

It is found that despite the creating more and more awareness about the new media technologies, we need to upgrade in the training skills provided in the teacher education. Hence it increases the point of blend of the formal and informal teaching in the classroom.

17. CONCLUSION AND RECOMMENDATIONS

As a developing country like India, many new media technologies are slowly adopting in the teaching practices by teachers, administrators and academicians. These new media technologies are providing a better output like increasing of student centric environments, collaborative learning, and easy access to digital content through social networking and e libraries. These technologies are not only beneficial but also have the challenges to be followed. A proper strategic model has to researched and developed for frosting these challenges in the higher education.

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