Research Paper   **Computer Science**

Remapping For Revitalization of The Higher Educational System In India Using Ict

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ABSTRACT

The last decade witnessed dramatic increase in technology incorporated into Higher Education (HE). Students are heavily immersed in Web 2.0 technologies, with internet playing an important role in student life, providing countless options for learning. The opportunities being vast, requires navigating education and understanding the current state and future direction of Information Communications Technology (ICT) in the teaching-learning process. The effective integration of ICTs into the educational system is a complex multifaceted process, besides involving technology also includes curriculum and pedagogy, institutional readiness, teacher competencies, long-term financing etc. This new paradigm has become a critical component in the mission of academic institutions, which includes imparting best education and extending the learning process beyond the classroom. This paper discusses the current scenario of HE in India and the challenges that we are likely to face in the quest for remapping and revitalization HE.

KEYWORDS   HE, ICT, Web 2.0, Remapping, Revitalization

1. INTRODUCTION AND BACKGROUND

It is not easy to speak at this point in time about the role that Higher Education will play in society in the next century. Students are looking at alternate paths to obtain education and knowledge. The future is pregnant with happenings more numerous than could ever see the light of day. However, the human being is in control of events and therefore it is the ethical behavior and response of mankind which will determine which ones will be viable (Yourcenar, 2015). It thus falls to the University to mediate the coming together of science and the arts in the search for a humanistic basis for a post-technological society. Or rather, it falls to the University to train citizens and future leaders to make an ethical critique of the uses and limits of the Science and Technology. What is more, it falls also to the University to shape the qualified man, enabling him to become the master of his fate, ethically responsible and committed both to himself and to the future of society. Citizens formed by universities with these characteristics will be the "shapers of the future" (Imenda, 2006). This cannot be the mission of a single University, nor of a single non-governmental organization. It is a task that faces us all.

As per the National Knowledge Commissions Report (Pitroda, 2009) a national drive to ensure access to knowledge and learning can transform India's potential for development, besides lifting young Indians to new levels of understanding and competence, and making India one of the leading knowledge societies in the world. In this changing scenario, it is imperative for us to take a re-look at our next generation infrastructure and technology to enable it to meet and address social, economic and business opportunities.

This confusion swells as higher education explores dozens of ICT (Information Communications Technology) and E-learning technologies for example: electronic books, simulations, text messaging, podcasting, Wikis, Blogs, Open Educational Resources (OER), Blended Learning, Learning Management System (LMS) and Massive Open Online Courses (MOOCs), with new ones seeming to emerge each week. Such technologies confront instructors and administrators at a time of continued budget retrenchments and rethinking. Adding to this dilemma, bored students are dropping out of classes while pleading for richer and more engaging learning experiences. Given the demand for online learning, the plethora of online technologies to incorporate into teaching, the budgetary problems,

and the opportunities for innovation, it is argued that learning environments are facing a "perfect e-storm" (Kim & Bonk, 2006).

The effective integration of ICTs into the educational system is a complex multifaceted process that involves not just technology but also curriculum and pedagogy, institutional readiness, teacher competencies, long-term financing etc.

Transformation has been happening in every field with the help of ICT. ICT is revolutionizing every aspect of an education sector in this digital era. To enhance the sustainability of higher education it is very much required to integrate ICT-based tools. In accordance with the above context this paper is written with the focus on assessing the key features of ICT-based Teaching-Learning so as to enhance the efficiency of teaching-learning process in higher education.

2. NEED FOR REMAPPING AND REVITALIZING THE HIGHER EDUCATIONAL SYSTEM IN INDIA

A good higher education system is required for overall prosperity of a nation. A tremendous growth in the higher education sector had made the administration of higher education institutions complex. Many researches reveal that the integration of ICT helps to reduce the complexity and enhance the overall administration of higher education (Krishnaveni & Meenakumari, 2010). When looking at the current widespread diffusion and use of ICT in modern societies, especially by the young the so-called digital generation then it should be clear that ICT will affect the complete learning process today and in the future ICT provides opportunities to access an abundance of information using multiple information resources and viewing information from multiple perspectives, thus fostering the authenticity of learning environments. ICT may also make complex processes easier to understand through simulations that, again, contribute to authentic learning environments. Extrapolating current activities and practices, the continued use and development of ICTs within education will have a strong impact on: ICT and teaching learning process; quality and accessibility of education; learning motivation, learning environment and ICT usage and academic performance (Noor-Ul-Amin, S. 2013).

The most critical issue facing Higher Education in general is how to provide access to instruction and services that will

enable many more students to fulfill their postsecondary aspirations (Schroeder, 2011) and the biggest challenge faced in higher education in developing countries is the provision of quality higher education to the greatest number at the lowest possible cost. LMSs are at the forefront of online technologies making a serious impression on patterns of learning and teaching in higher education (Coates, 2006).

The seamless access, flexible schedules, quality content and inclusive delivery mechanisms provided by various ICT tools, one of the important ones being a Learning Management System (LMS) such as MOODLE (Modular Object Oriented Dynamic Learning Environment). The MOODLE-LMS has enormous potential not only to empower the learner but to increase the scale of access and, in that process, bring down the cost of higher education for the individual learner. MOODLE-LMS provides an environment that enables learning, as learners work individually on assigned materials and decide when they would engage. Learners can assess the outcomes of their engagement by how successful they were progressing through the materials with the help of assessment features like Quiz, Assignment, etc. all built into the LMS. The author through findings from her study (Falleiro, 2015) has highlighted the significant role that such factors can play in the learning process, laying particular emphasis on those associated with student engagement, motivation and academic performance levels. The plethora of features offered in LMS-MOODLE along with the embedded cognitive strategies like a feedback feature makes it an LMS that provides students with a learning advantage. This study as an initial exploration concluded that if MOODLE-LMS does contribute positively towards improving student learning outcomes in a classroom-like situation it could likewise be an efficient as well as cost-effective option vis-à-vis HE (through Open Distance Learning) in a developing country like India with scarcity of infrastructure and trained faculty, and high drop-out rates contributed by factors like long distances, high cost in terms of fees, need for seeking remunerative employment at an earlier age etc. The General Enrollment Ratio (GER) pertaining to higher education in India is currently about 15 percent (Suneja, 2012). Thus, besides improving education directly through enhancement of academic performance, motivation and engagement, MOODLE-LMS could facilitate the expansion of HE sector itself, by providing access and effective learning opportunities for those deprived from HE. The fact that MOODLE-LMS has no geographical barriers and can be accessed anytime, anywhere, and with faculty not being required to be in one geographical location, makes it all the more valuable for students as well as for the government (as service provider). Additionally, MOODLE-LMS besides passing the benefits of HE to a larger number of individuals can provide better inputs to students through the contribution of expert faculties from even across the world, at no additional cost to students, thereby further enhancing quality education and transforming HE.

The effective integration of ICTs would not only help in promoting personal growth but also in developing "knowledge societies". The call of the hour is the need to provide education for everyone, anywhere, and anytime. Life-long learning has become the driving force to sustain in the contemporary competitive environment (Anderson, 2008).

The globalization process has also created a large market of offshore students. To reach them, information technology is the only convenient medium, which can offer education as a service. It increases education provision substantially and can contribute to mass education. It also creates competition among the institutions for providing education and hence improves the quality.

The 12th, 5 year Plan talks about Access and Equity in Education (Muralidharan, 2013). The demand for higher education is expected to rise steeply in the forthcoming years under these influences. ICTs lend themselves as an ideal mechanism to bridge this gap by complementing both formal education system as well as open distance learning systems (ODL). The

General Enrollment Ratio (GER) pertaining to higher education in India is currently about 15 percent. ICT could facilitate the expansion of HE sector itself, by providing access and effective learning opportunities for those deprived from HE. The fact that ICT has no geographical barriers and can be accessed anytime, anywhere, and with faculty not being required to be in one geographical location, makes it all the more valuable for students as well as for the government (as service provider). Additionally, ICT besides passing the benefits of HE to a larger number of individuals can provide better inputs to students through the contribution of expert faculties from even across the world, at no additional cost to students, thereby further enhancing quality education and transforming HE.

While using ICTs in education has some obvious benefits, ICTs also bring challenges. The four most common mistakes in introducing ICTs into teaching are i) installing learning technology without reviewing student needs and content availability; ii) imposing technological systems from the top down without involving faculty and students; iii) using inappropriate content from other regions of the world without customizing it appropriately; and iv) producing low quality content that has poor instructional design and is not adapted to the technology in use (Meenakumari & Anthony, 2013).

While teachers are taking their initial strides into the 21st century, there is a feeling of helplessness as they bravely attempt to cope with a data-laden, technology-driven environment. There is a perception that they are more like 'digital immigrants' in the land of the 'digital native' as stated by Prensky (Prensky, 2009).

3. CONCLUSION AND SUGGESTIONS
As discussed throughout, there are clear opportunities to enhance educational practice with the spirit of Web 2.0 but this is not without its challenges. It will require educators and educational institutions to confront the hidden challenges that Web 2.0 tools present. Having said all this, by no means should we forget that the student has always been the focal point of our education system. This paper has showcased a capsule of the current scenario of education in terms of the ICT tools that are available, the challenges that we can encounter and now for the future direction. India as a country can no longer stand as just an island of isolation and innovation in a digital world, so Indian Universities need to reach out to a wider audience next. There are brilliant and talented faculties not only at IITs and IIMs but also at various places under the central and state universities umbrella. By collaborating we have all the ingredients to be the flavor of the nation. The University therefore can definitely become the E-Content Resource hub that focuses on e-content creation not only for its affiliated colleges but also later, scale up to MOOCs so its mission of knowledge dissemination gets a worldwide audience.

For successful integration of ICT into teaching-learning process, it can be concluded that the factors that positively influenced teachers and administrators use of ICT in education include teachers attitudes, ICT competence, computer self-efficacy, teaching experience, education level, professional development, accessibility, technical support, leadership support, pressure to use technology, government policy on ICT literacy, and technological characteristics. However, the presence of all factors increases the probability of excellent integration of ICT in teaching-learning process. Therefore, the training of teachers in the pedagogical issues should be increased if teachers are to be convinced of the value of using ICT in their teaching-learning process (Ali & Muhammad, 2013).

Exploring the role of ICT in education as we progress into the 21st century is the need of the hour. In particular it has been argued that ICTs have impacted on educational practice in education to date in quite small ways but that the impact will grow considerably in years to come and that ICT will become a strong agent for change among many educational practices. Extrapolating current activities and practices, the continued use and development of ICTs within education will have

a strong impact on: What is learned; How it is learned; When and where learning takes place; Who is learning and who is teaching. The upshot of all this activity is that we should see marked improvements in many areas of educational endeavor. Learning should become more relevant to stakeholders needs, learning outcomes should become more deliberate and targeted, and learning opportunities should diversity in what is learned and who is learning. At the same time, quality of programs as measured by fitness for purpose should continue to grow as stakeholder groups find the offerings matched to their needs and expectations. The role of ICT in higher education for the 21st century: ICT as a change agent for education (Oliver, 2002).

The teaching community in general must strive to elevate skill levels from the bottom up, rather than aiming for excellence at the top of the education ladder. We need to reorient our teaching methodology to be vibrant, competitive, meaningful and purposeful; this is only possible if we strive to come in terms with the rapid change and powerful new technologies so as to have a profound impact on the future of education.

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