

E-Learning And Internet Revolution in India

Amanpreet kaur¹, Student¹

Department of Education¹, Govtment State College Of Education¹ Pataila¹ Punjab¹

ABSTRACT

Use of technology to facilitate learning is accepted to be of value across educational institutions. Government of India has taken cognizance of the institutional support required for resources in e-learning and formulated the national mission on education through ICT. However, the focus is still largely on getting the infrastructure and creating the e-learning content. It is necessary to consider the individual factors that play an important role in the adoption of e-learning. For example, attitude of students and teachers towards e-learning may affect their acceptance of the technology in the teaching-learning process. While there have been studies to understand the factors of the instructors (e.g. release time for staff to engage in e-learning) and students (e.g. learning style) in acceptance of e-learning separately, a comprehensive view that considers both students and teachers in the same model is lacking (Jung, et. al., 2008; Nanayakkara 2007). To address this research gap, this paper considers the attitudes of students and the teachers that determine intention and actual use of the e-learning technology simultaneously in the model of e-learning. India has a conducive environment where e-Learning could develop in future to solve many problems of education especially in rural India. Keeping this in background, author presented in this paper, various facets of e-Learning in India, present status of e-Learning activities, major organizations & their technologies for creating e-Learning information systems, regulatory framework, government initiations, impact of e-Learning technologies on the education system.

Keywords : E-learning software system, Requirement prioritization, Regression testing performance, expectancy, social influence, facilitating conditions, learning style, teaching style.

I INTRODUCTION

Learning Management systems (LMS) or e-learning has resulted in a paradigm shift in education systems. E-learning is defined as Internet-enabled learning that involves the convergence of the Internet and learning. The rapid development of Internet has facilitated its growth. E-learning uses the concept of distance learning but at a faster rate. Traditional distance learning was conducted by mailing the course contents and then student is left alone to study till the test. On the other hand e-learning provides faster learning at less cost, an access to large number of learning resources and an accountability for all participants. It is made up of several components, including content delivery in multiple formats, management of the learning process and a networked community of learners, trainers, content developers and experts. E-learning should not be just a machine based method for teaching and will be only effective in engaging all the participants when it has a human touch.

II DEFINING DISTANCE EDUCATION

It can be defined as the method of self learning in which technologies can be used to impart education. Instructors and students are physically separated in space and possibly time (Teaster and Blieszner, 1999), and the communication can take place by electronic and other technology, as well as special organizational and administrative arrangements (Moore as cited in Oweye, 2003). It releases the student from the task of traveling to a fixed place, at a fixed time, to meet a fixed person, for training (Keegan, 1995). E-learning should not be just a machine based method for teaching and will be only effective in engaging all the participants when it has a human touch. The learning can be on any level, elementary school, college, or corporate. E-learning is gaining popularity because of the obvious advantages it offers -

- It minimizes travel

- Open for working people
- Career oriented training easily available
- There is no time constraint
- Little infrastructure needed
- Provides innovative and interactive learning

The future of e-learning looks extremely bright. Worldwide revenues for e-learning will be more than \$23 billion by the end of 2004 – this represents an increase of over \$21 billion in five year. North America represents the largest opportunity for corporate e-learning and account for two-thirds of worldwide revenues. Western Europe represents the fastest-growing market, increasing its revenues at a compound annual growth rate of 97% from 1999 to 2004. Currently non-IT contents of e-learning, account for over 54% of revenues as compared to 46% from the IT contents.

India entered this expanding and lucrative field, a little late. But thereafter India has made good progress in the field of e-learning. Only last year (2003) Indian government launched an ambitious project of e-learning and e-governance and \$ 2660 million (Rs.12, 0000 million) will be spent in next four years. Aim is to take e-learning to schools in every district across the country. This project will ultimately cover 0.6 million (6 lakh) schools in India. Computer labs would also be set up to aid the learning process, where students can use multimedia and other software to enhance their learning capabilities. Government and industry will fund this project. Another major e-learning project was launched in 2003 by Karnataka government. The Government of Karnataka and IBM India signed a Memorandum of Understanding to promote e-learning within the state. IBM has the global expertise in providing e-learning services and setting up e-learning infrastructure. IBM will develop an e-learning platform for BITES (Board for IT Education Standards) for higher technical educational institutions in Karnataka. The e-learning platform with the Government of Karnataka will create one such eco-system and develop educational institutions in the state as Centers of Excellence". Next few years will determine whether or not the dream of making e-learning available to our billion strong population becomes a reality.

III ROLE OF E- LEARNING

“In well facilitated learning environments, through technology, students become excited about what they are learning and aware that they are members of a global community (Berge, 1998). It is the powerful tool for distance education which is marking its presence across school, universities and organizations. These are due to the inherent advantages of the technology. Some of these are—

- The number of students aspiring for education is becoming larger day by day, making it impossible to develop the traditional infrastructure (classrooms, physical libraries, hostels) to cater to the ever growing need. Developing online systems can help meet these growing demands.
- Due to the larger workforce requirement as guided by the industrial revolution, professionals are lured towards the attractive and soaring incentives to join the race, thus posing a threat to the education industry in terms of dearth of qualified, experienced and competent faculties, experts and the trained professionals. Developing online systems can help the industry by providing new development avenues to the professionals and sustaining their enthusiasm.
- Online Systems will also enable the efficient use of resources anytime and in any part of the country. Thus making the whole education system altogether flexible.
- Also, such systems will enrich the learning process which will enhance the entire learning experience.

IV CURRENT STATUS OF E-LEARNING IN INDIA

As the world’s second most populous nation, India also has the distinction of having the world’s largest illiterate population. Total literacy has been a goal of many governments. The various active organizations and the institutes in the country are —

V CASE EXAMPLE 1

INDIAN INSTITUTE OF MANAGEMENT AHMEDABAD (IIMA)

In the contemporary business world, competition is rising, and there is the need of practicing managers, business heads and executives to upgrade their knowledge and skill set to address the new global business paradigms. Looking to such needs, IIMA has created a new initiative that delivers cutting edge management education in real time through Virtual Learning Programmes. Without leaving their current jobs, executives can now avail the opportunity to enhance their capabilities and skill sets with the

premier knowledge delivery expertise. IIMA has tied up with NIIT Imperia to extend its reach to the working executives through Virtual Learning

Programmes delivered online. These programmes are carefully designed and structured to reflect the most relevant needs of industry. Each programme focuses on new developments and latest trends in managerial practices relevant to the current global practices. These specialized programmes ensure that the participants:

- Get an opportunity to have face to face interaction with the faculty.
- Develop capabilities and hone skills.
- Apply the learning to their organizations.
- Share their learning through the platform.
- Work on live project and report their findings.

An upgraded, specialized skill set and a sound academic and theoretical understanding of the concepts is what the participants can expect after completion of these programmes. Performance in the organization is enhanced and visibility increased, which leads to better future prospects for these candidates. These management development programmes are aimed at the best of working professionals who are motivated and serious about self development and are prepared to put in time and effort. The entire pedagogy is conceptualized by the faculty which is specially designed for delivering education over a technology based platform. NIIT brings to the collaboration the expertise of technology based distributed mass education along with its strength of reach across the country and its experience to create a unique student experience for geographically dispersed students.

VI CASE EXAMPLE 2

SYMBIOSIS CENTER FOR HEALTH CARE (SCHC)

SCHC has successfully implemented e-learning and is offering Post Graduate courses in MedicoLegal and Health Care management. Using e-learning, doctors, nurses and other medical related professionals from all over the globe are currently able to get their Post graduate degrees from the comfort of their own places. Rather than taking time away from their regular duties or work hours, they can continue with their education during non-working hours.

Symbiosis understood the need for doctors to be able to continue with their education and designed courses that would help them do so through the Internet. PGDHHM (Post Graduate Diploma in Hospital & Health Care Management) was designed to make the doctors more aware of adapting the management theory into the hospital system. The course focuses on managed healthcare and management issues like strategic management, risk management. It also enables existing hospital managers and health care professionals such as doctors and nurses to understand the concepts and techniques of management and develop skills in planning, operation and entrepreneurship for running hospitals and health care organizations. PGDMLS (Post Graduate Diploma in MedicoLegal Systems) aims to prepare medical graduates, both doctors and nurses, for managing medico legal problems. It will also enable doctors and nurses to understand the concepts and techniques in medico legal systems. The course was designed carefully with the intention that they could be learned online.

The e-learning system was successfully implemented by ARK Tutor (Source available at <http://www.arktutor.com/>) –a pioneer in e-learning models in the educational sector. The Learning Management System (LMS) allows staff to administer the day-to-day activities. Student management, faculty management, course launching, extensive reports are all built into the system. Additional tools like message board, calendar and progress tracking make the e-learning experience practically paperless. Easy to follow help systems and online demos help the faculty, students and administration to overcome any initial inhibitions that they might have of learning online.

With the help of e-learning, SCHC is able to distribute courses and reach many more people than would have been possible in a traditional classroom.

VII CASE EXAMPLE 3

AMRITA

Under the agreement, UC Berkely and UC San Diego, as well as Carnegie Mellon University, Cornell University, the State University of New York at Buffalo, and the case Western Reserve University will encourage engineering faculty to spend a quarter or semester of their sabbatical at AMRITA University in the southern Indian state of Tamil Nadu. AMRITA will extend use of its e-learning center, making it possible to be beamed over Edusat, a satellite launched by the Indian Space Research Organization to transmit educational programming to multiple educational institutions throughout India.

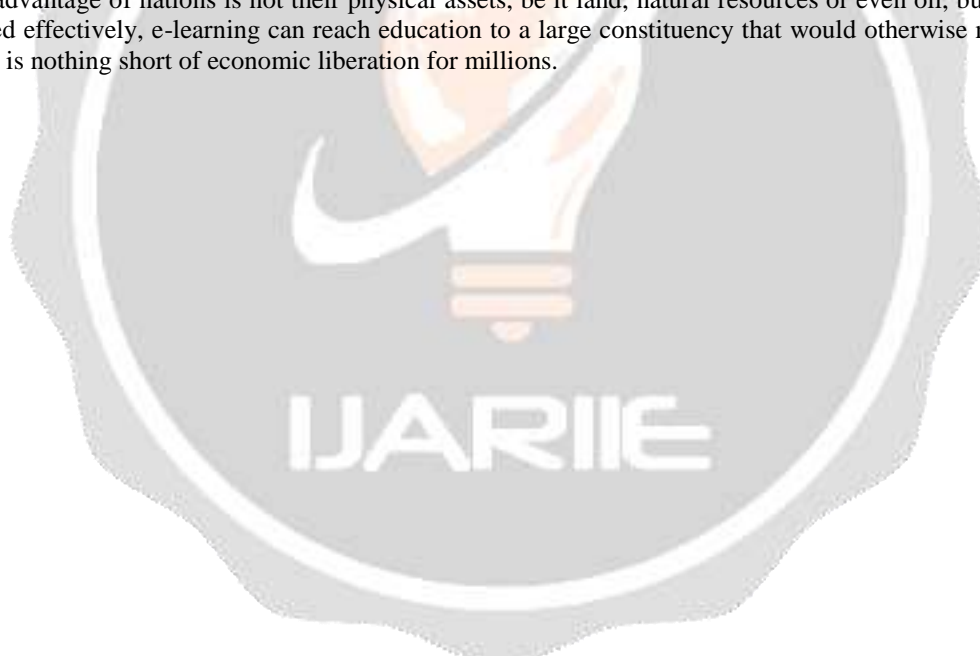
Three U.S. research centers are partners to the agreement: UC's Center for Information Technology Research in the Interest of Society (CITRIS), the California Institute for Telecommunications and Information Technology (Calit2), and Carnegie Mellon's CyLab.

The U.S. universities in this agreement are first-tier engineering schools that can help offset the imbalance in the quality of professors in India's fastest growing colleges and universities. With the help of American professors, these satellite courses will turn more students into top-level engineers, not just for India, but potentially for Ph.D. programs and businesses in the U.S. as well.

Composed of four relatively new campuses and established by the world renowned humanitarian organization Mata Amritanandamayi Math—it is developing world class undergraduate and graduate engineering courses to be delivered over Edusat. Other Indian partners in the project include the Government of India and the country's Department of Science and Technology.

VIII CONCLUSION

Quality of developed E-learning system would influence the quality of teaching in educational sectors, and would be useful for educators and learners, both. Country would be benefitted, since economic development depends heavily on education and quality of researchers involved in research projects in the country. E-learning systems overcome the global distances that exist between experts and learners and thereby making the whole world as an education hub. Thus, it is expected that good quality of E-learning software systems would be developed using the proposed prioritization technique. It is also expected that Mobile compatible E-learning systems would be launched soon so that "any time and any place" access could be provided (M-Learning). Advancement in the area of Software engineering, Mobile Communications and Web Technologies would improve quality of E-learning and hence teaching quality. With all the challenges that India is facing in education and training, E-Learning provides many answers and needs to be addressed seriously by the planners, developers and the private industry players. In the knowledge economy, the chief competitive advantage of nations is not their physical assets, be it land, natural resources or even oil, but quality and skill of their people. If used effectively, e-learning can reach education to a large constituency that would otherwise not have access to it. In India, education is nothing short of economic liberation for millions.



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