Research Paper   **Education**

E-Learning Some Opinions on The Future of Education in India

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ABSTRACT *Education is one of the most important factors determining the status of a country and its future vision of development. One of the prime aspects of Indian education system is the inclusion of the recent digital methods and technological tools. Education being the backbone of a country, inclusion of digital technologies concentrates high attention in recent times. India lacks severely in digital literacy and implementation of technology enabled quality education. What resulted is that no Indian academic institution counts within the top 200 of the world. This paper is the outcome of a prolonged study of the prospects that E-Learning may have in India and how it would revolutionize the scope, reach and the delivery of education in India. The paper sets out arguments as to why E-Learning is the future of Education in India highlighting it's need and importance and how it will be a game changer in the field of education .*

KEYWORDS : E- Learning, Higher Education

INTRODUCTION

E-Learning means electronic learning is a kind of non-conventional education method where regular physical attendance and eye-to-eye contact with the instructor is not required and learning can be done form anywhere and at anytime according to convenience of student and at a place suitable to him/her. E-Learning is a technology which support education and learning via ICT like internet, CD ROM or a standalone computer. It is an online teaching method of interactive presentations, videos, chat, online lectures, notes, quiz, tests etc. E-Learning educates students using learning material that is fully enriched with multimedia content. Students get self learning experience through the e-text, audio-video materials, online lectures etc. and assess themselves by online self assessment tests like quiz, online exams etc. e-Learning can become more popular in current scenario where students are more inclined to use ICT equipments for their daily life.

TYPES OF E-LEARNING

There are basically two types of e-learning: synchronous and asynchronous

With synchronous learning , the students and instructor are online at the same time,and interact live as though in a class together.

Asynchronous, which means "not at the same time," allows the participant to complete the Web Based Training (WBT) at his own pace, without live interaction with the instructor.

A new form of learning known as blended learning is emerging. Blended learning combines e-learning tools with traditional classroom training to ensure maximum effectiveness. Students can prepare for, consolidate and recall classroom experiences online, while gaining the benefits of interaction with teachers and students via an actual or virtual classroom . Student learning and retention rates improve without sacrificing the convenience, cost-effectiveness and customization of self-paced Web-based coursework.

WHY E-LEARNING?

Technology has changed the way we live, work, think and learn. Today's workforce has to processmore information in less time than in the past. As production cycles and life spans of productscontinue to shorten, information and training quickly become obsolete. In the new economy,organizations and academic institutions need to find new, cost-effective ways to keep workforce competent. Knowledge and skills have to be delivered more rapidly andefficiently whenever and wherever needed to account for the increasing complexity and velocity ofthe work environment. In the age of just-in time production, just-in-time training has become a criticalelement of organizational success. Social and demographic changes, such as declining birth rates, theaging population, and the severe shortage of skilled

labor, are directing education toward new targetgroups. Today, traditional students—age 18 to 22—represent only a minority of the higher educationstudent population. Working adults, the fastest-growing group attending higher education institutions,already account for nearly 50% of students, constituting a niche whose needs are severelyunderserved. For universities, these individuals are excellent candidates for education delivered totheir homes or officers. The explosive growth of the Internet opens up opportunities to supportdemographic, technological, and lifestyle changes and offer quality education to those who wouldother wise not have access to it.

COMPONENTS OF E-LEARNING

E-Learning components include: learning management system (LMS) or learning contentmanagement system (LCMS), content, collaboration, testing and assessment, skills and competency,e-commerce, and Internet video-based learning. A complete e-learning portalrepresents the total integration of multimedia, instructor-led, and real-time training - in a human,collaborative environment.

Recent E-learning Trends

Latest trends in any industry are defined by the advancement in technology, and the field of E-learning is no different. The current requirements of learners involve:

1. *Adding learning to work*: It involves merging courses and E-learning modules within the activities in workflow.
2. *Embedding learning within workflows:*It enables development of learners in a work environment. This includes using mobile applications where users and staff can interact at any geographical locations.
3. *Extracting learning from work:* It is based upon 'working followed by learning and then improving the way you work' instead of 'learn then work' model.

These three activities are device independent and put the learning and performance context first, then address the implementation question second. They recognise when mobility is a key requirement, for example in evidence gathering on the job. In other contexts, it's more about making access possible across all devices.

Tools of E-learning-

In e-learning method several kinds of tools are used apart from internet, intranet and network tools such as :

Blogging Tools-a blog is made in journal style and usually displayed in reverse chronological order. It spread and enable access to specific information it can be used by students as well as instructor to provide updated information.

E-mail:-E-mails as well as email based discussion forums are useful in

delivering contents as well as communication about e-learning.

News group:-A user can read and post message to central space which then copies it to individual and other news group.

Bulletin Boards:-Bulletin board is a public discussion area where messages can be sent electronically without sending them to any-one's e-mail and these messages could be read by anyone who enters that area.

Web forms:-Web forms are used as a means for providing references service to the users in e-learning environment discussion under various topics but not in real time.

Polling:-Polling enables us to setup a survey /questionnaire and obtain feedback from a wide range of people.

Wikis:-Wiki is a set of web pages that can be easily updated by any one who is allowed access.

Instant Messaging:-Instant Messaging is the real time communication between two more people based on typed text. It is used for multiple purposes such as simple request & responses; scheduling face to face meetings etc.

Online discussion:- Online discussion allow users to post messages to a known location where other participant can read and respond to them, while video conferencing tools let the user see and hear one another .

White board:-It stimulates the communication that occurs when instructor draws on a wall mounted white board & then invites a student to contribute to drawing.

Course Management System:- This system help in the creation and management of course material such as lesson/course ware assignments glossaries, citation to the other recourses etc. also known as virtual learning system, learning management system etc.

Internet telephony:- In this tool a user can make calls by using internet. An individual can make distance phone calls through the computer and the internet without playing long distance phone changes.

Growth of ICT and e-Learning in India

India has taken a very long leap in last few years to improve its educational system and structure, no. ofcolleges and no. of students has increased dramatically which helps educate a large no of student indifferent ways. Government set up lots of bodies, centers and started different project to educate its large noof population, government have started lots of distance and online learning programs. After the establishmentof University Grant Commission (UGC) in 1956, UGC started the coordination, determination and maintenanceof standards of university education, even IGNOU and other open schools offering distance educationdegree programs in different disciplines and providing rich study material in textual or audio-visual format through its eGyankosh, sakshat, Gyandarshanetcprograms.Government also came with the idea of promontory use of ICTs in education in its Eleventh five year plan(2007-2012) and set up a National Mission in Education through ICT. To promote technology driven education,the country launched a dedicated satellite EDUSAT on September 20, 2004 with the expectation to bringboth quantitative and qualitative revolution in education and help in e-learning or self education. There areplenty of e-learning projects launched in India which helps and motivate learners to learn on a computer.

Currently there are several projects to promote education learning environment. Some of the major projectsare eGyanKosh, Flexilearn,NPTEL, CEC, Institute of Lifelong Learning (ILLL), e-PG Pathshala.

Growth of important Projects of E-learning in India

The Ministry of Human Resource Development has created a platform / portal named 'SAKSHAT' as part ofthe National Mission in Education through Information and Communication Technology. E-Content Projectssanctioned by NME-ICT, MHRD including some other e-Learning platform are as follows:

i. e-GyanKosh(http://egyankosh.ac.in/)
The meaning driven from e-GyanKosh is E=Electronic, Gyan=Knowledge and Kosh. eGyankosh is a national digital repository to store, index, preserve, distribute & share digital learning resources developed by theOpen and Distance Learning Institutions in the country. It is implemented and maintained by Indira GandhiNational Open University (IGNOU). All course materials of IGNOU can now be accessed & downloaded freeof cost. The collection comprises print & video based contents. Access of all materials are open to allthrough the one time registration process.

ii. FlexiLearn(http://www.ignouflexilearn.ac.in)
IGNOU has introduced a open course portal called Flexi Learn which provides a self-learning environmentwith a list of academic advisors / course guides to act as mentors. FlexiLearn provides free and easy accessto IGNOU's courses without any charges.

iii. National Programme on Technology Enhanced Learning (NPTEL) (www.nptel.iitm.ac.in/)
The National Programme on Technology Enhanced Learning (NPTEL) is a project funded by the Ministry ofHuman Resource Development (MHRD). The operational objective of NPTEL is to make high quality learningmaterial available to students of engineering institutions across the country by exploiting the advances ininformation and communication technology.

iv. Consortium for Educational Communication (CEC) (www.cec-ugc.org/)
Consortium for Educational Communication (CEC) was set-up as a nodal agency at the national level toaddress the educational needs of the country through the use of electronic media. CEC has about more than15000 educational video programmes in 50 subjects developed by different Educational Multimedia ResearchCenters spread in Universities and Institutions of Higher Education across India. 22 Media Centers are

working towards achieving this goal under the umbrella of CEC. NME-ICT, MHRD awarded the projectnamed "Development of Courseware e-Content for Undergraduate". e-Learning Type Audi o/Visualand Web Based material. CEC project basically concentrates on creation and dissemination of multimediabasedlearning resources.

v. Virtual Learning Environment, Institute of Lifelong Learning (ILLL) (www.vle.du.ac.in)
The Virtual Learning Environment, Institute of Lifelong Learning (ILLL) is a unique and innovative initiativeof the University of Delhi to provide Open Educational Resources (OER) to the teaching and learning. community. VLE provides the courses in Commerce, Humanities and Social Sciences, History, Sciences,Interviews and Podcast.

vi. Creation of e-Contents of Fermentation Technology (http://www.elearnmicrobiology.com/)
e-Content of Fermentation Technology is a dedicated project for student of microbiology specifically in thearea of industrial microbiology. The illustrations related to dynamic textbook, lesson plans, self-assessmentquiz, and interactive demonstrations given in the content has been developed by core team of the subjectexperts.

vii. e-PGPathshala(http://www.inflibnet.ac.in/epgp/)
The MHRD, under its National Mission on Education through ICT (NME-ICT), has assigned work to theUGC for development of e-content in 77 subjects at postgraduate level. The content and its quality is thekey component of education system. High quality, curriculum-based, interactive content in different subjectsacross all disciplines of social sciences, arts, fine arts & humanities, natural & mathematical sciences,linguistics and languages is being developed under this initiative named e-PG Pathshala. E-content sodeveloped would be available in open access through a Learning Management System (LMS) set-up at theINFLIBNET Centre as well as through Sakshat portal.

Benefits of eLearning

Integration: All institutions, research institutions, regulatory bodies, professionals, academicians and students can be integrated on regional, state, national and international level. Sharing of knowledge, experience, infrastructure and technology will enhance the effective

and efficient utilization of available resources. Students can have an access to unlimited storehouse of information at any hour and from any place.

Access to best faculty and quality study material: Since eLearning has ability to cover distances, a few good teachers can be scaled up. Faculty availability is not restricted by geography or even time because of recorded classrooms. The expert teachers also will be identified and honoured by the demand for them from learners.

Human bias: eLearning helps removes the bias of sex, religion, colour, caste etc.

Dust free environment: Unlike in chalk and talk method, learning atmosphere becomes dust free

Individualized instruction: eLearning also offers individualized instruction, which print media cannot provide. It makes learning exciting, engaging and compelling. Blended programmes can integrate eLearning with face-to-face workshops, coaching, action learning and a huge range of other learning methods to cover a range of needs, styles and approaches. Private messaging readily supports these exchanges while protecting the participants' privacy. Based on the individual and/or group needs, interests, career objectives and job profiles, lesson modules can be chosen.

Learning in experience: A Chinese proverb says, 'Tell me, and I'll forget. Show me, and I may remember. Involve me, and I'll understand'. Difficult or dull subjects can be made more interesting, easier and more appealing by e learning. It is an active experience with the emphasis on interactivity and 'learning by doing'. Also, many studies have proved that absorption levels are at least 20% higher in eLearning compared to traditional learning. (www.gurukulaonline. com)

Fast learner - Slow learner mechanism: Quality of output information can be adjusted to the required level and are flexible. eLearning emphasizes continuous learning and promotes "just-in-time" and "just enough" learning. Both slow and fast learners can take their own time of learning because they do need separate timings. And hence the overall stress in the classroom environment can be removed.

Flexible: On-demand availability enables them to remove stress. eLearning empowers you to take charge of your learning and to access online library resources. Since the playback of recorded sessions are possible, absentees can learn the lessons when they are back and the slow learners can listen for more than one time.

Cost effective for both students and organisation: eLearning makes the best knowledge products available at an affordable rate by cutting down the travel and extra living expenses. Overall cost for the organisation is also reduced (instructor's salaries, meeting room rentals, and student travel, lodging, meals, etc).

Zero opportunity cost of time: Since learning can be planned after regular working hours or on holidays or at home, the opportunity cost of the time spent on training is zero. Learning time is also reduced to an average of 40 to 60 percent, as found by Brandon Hall (Web-based Training Cookbook, 1997, p. 108).

Simulation, gaming and interactivity will enrich eLearning: Research shows that student understanding and retention improves when they learn by experience. Technologies such as collaboration, interactivity, modelling, simulations, virtual reality interfaces and gaming will help students experience the skill while being taught. This will help the students in Albert Einstein's scientific method of learning. He says 'I do not teach my pupils. I provide conditions in which they can learn.' And hence eLearning is a wholesome learning.

Why technology is used in Education Industry?
Economists identify three factors that lead to growth which is based on increased human capacity.

· **Capital deepening** - the ability of the workforce to use equipment that is more productive than earlierversions

· **Higher quality labour**- a more knowledgeable work force that is able to add value to economic output

· **Technological innovation** - the ability of the workforce to create, distribute, share and use of the newknowledge.

These three productivity factors serve as the basis for three complementary, somewhat overlapping, approaches thatconnect education policy with economic development.

· **The Technology literacy approach** -Increasing the extent to which new technology is used by students,citizens and the work force by incorporating technology skills into the school curriculum.

· **The Knowledge deepening approach** -Increasing the ability of students, citizens, and the workforce touse knowledge to add value to society and the economy by applying it to solve complex, real-world problems.

· **The Knowledge Creation approach** -Increasing the ability of students, citizens, and the workforce toinnovate, produce new knowledge, and benefit from this new knowledge.

Technology as tools of Teaching
There are various types of technologies currently used in classrooms. Among these are:

· **Computer in the classroom**: Having a computer in the classroom is an asset to any teacher. With acomputer in the classroom, teachers are able to demonstrate a new lesson, present new material, illustratehow to use new programs, and show new information on websites.

· **Class blogs and Wikipedia**: There are a variety of Web 2.0 tools that are currently being implemented inthe classroom. Blogs allow for students to maintain a running dialogue, such as a journal, thoughts, ideas,and assignments that also provide for student comment and reflection. Wikipedia, an online encyclopaedia,are more group focused to allow multiple members of the group to edit a single document and create a truly collaborative and carefully edited finished product.

· **Wireless classroom microphones**: Noisy classrooms are a daily occurrence, and with the help ofmicrophones, students are able to hear their teachers more clearly. Students learn better when they hear theteacher clearly.

· **Mobile devices**: Mobile devices such as tablet or smart phone can be used to enhance the experience inthe classroom by providing the possibility for professors to get feedback.

· **Interactive Whiteboards**: An interactive whiteboard that provides touch control of computer applications.These enhance the experience in the classroom by showing anything that can be on a computer screen. This not only aids in visual learning, but it is interactive so the students can draw, write, or manipulateimages on the interactive whiteboard.

· **Digital video-on-demand**: Digital video eliminates the need for in-classroom hardware and allowsteachers and students to access video clips immediately by not utilizing the public Internet.

· **Online media**: Streamed video websites can be utilized to enhance a classroom lesson.

· **Online study tools**: Tools that motivate studying by making studying more fun or individualized for thestudent.

· **Digital Games**: The field of educational games and serious games has been growing significantly over thelast few years. The digital games are being provided as tools for the classroom and have a lot of positivefeedback including higher motivation for students. There are many other tools being utilized depending on the local school board and funds available at their disposal.

Challenges of e-learning in India
1.   The cost of hardware and software can be very high..

2. The potential of plagiarism is high as student can copy information rather than learning and developing their own skills.
3. It can affect the bonding process between the teacher and the student as ICT becomes a communication tool rather than face to face conversation and thus the transactional distance is increased.
4. It may shift the attention from the primary goal of the learning process to developing ICT skills, which is the secondary goal.
5. Also since not all teachers are experts with ICT they may be lax in updating the course content online which can slow down the learning among students.

SCOPE OF e -LEARNING IN INDIA

India has a major role to play in the international e-learning services industry. It is already one of the leading IT service provider countries, and it is now aiming to achieve the same position in the IT enabled services. The presence of world-class educational infrastructure and training professionals enables it to be one of the leading e-learning services providers in the world. On the domestic front, the government and private sectors have taken many e-learning initiatives. Though these initiatives have been met with a lot of enthusiasm and user acceptance, their commercial viability is still under consideration. The government has been taking some proactive measures in a regulatory and financial capacity to boost the e-learning environment in India. Funds have been invested in setting up Internet kiosks in rural areas for the purpose of communication, which can be used for e – learning initiative as well and can help in providing informal and vocational training as well as formal education. The main strengths of the Indian e-learning services industry are:

English speaking, highly qualified and techno savvy manpower Safe Electronic Environment – Official recognition for Digital Signatures and E-transactions Lower costs of human capital when compared to developed countries Strong and buoyant domestic education industry that facilitates up-gradation of skills and introduction of new products .

Recommendations

i. Active Discussion Forums should be devised for student-instructor interaction.
ii. Digitization of books &e-libraries should be done that makes them more interactive with graphics & animations.
iii. Strict legal provisions should be implemented to check the spurt of illegal and low quality contact centres.
iv. The instructor training modules and course design of curriculum should also berevised and updated regularly.

Conclusion

The paper has suggested the meaning and importance of e-learning in recent education. At present we havelots of e-learning projects in India but there is lack of awareness among learners they are not able to get thebenefits from it. This study aims to thorough some light and investigates the growth and development of some of the popular e-Learning project running in India. e-Learning involves almost all forms of ICT technologies which able to covers a wide range of users. But it is also remarkable thing that the future of e-leaningwill depend upon its management, the platform, its content, entities for Content Creation of e-learningand their expertise.