E-Learning in India

Sunil Kumar Sharma, Javed Wasim, Dr. Jamshed Siddiqui

Abstract— ***The concept of e-learning is still vague to many of us in India. E-learning is essentially electronic learning and is delivered through a computer. In different sectors and with different people the meaning of e-learning differs. For instance, in the field of business it refers to the strategies used by a company network to give training to its employees. In many Universities, the term is used to mean a specific method to convey contents of course or program to the students online. Many higher education systems now a day are offering e-learning to their students. Online education is fast developing in the education system and is widely used in many universities and many research areas [1]. This paper concentrates on the Indian education scenario, presentation tools for e-Learning, challenges faced by E-learning in India, and future of eLearning in India. A few suggestions have been made to use E-Learning for informal and vocational training, which is highly effective for a developing country like India where a majority of population is living in rural/ remote areas and has received almost negligible formal education.*** (1)

Index Terms—**About four key words or phrases in alphabetical order, separated by commas.**

I. Introduction

E-learning is the name given to computer enhanced learning. Computers play a big role not only in learning but education as such. The role of computers in supporting the cause of education varies greatly. Information technology is used both as medium and tool in education. An ATEE (Association for Teacher Education in Europe) report (Rhys Gwyn, 1986) lists six categories under this – (a)

- Tools for thinking (problem-solving tools)
- Tools to organize information (text processing and document preparation) (b)
- Tools for guided discovery learning (simulation systems, educational games, intelligent tutor systems) (c)
- Tools for teaching and learning
- Tutorial software
- Drill and practice

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Although e-learning has been around for decades, it has seen exponential growth in the last years, mainly because of the growth of the Internet [2].
E-learning is just one of the many terms which are used in literature and business about e-learning. E-learning is defined by many people, in many ways, and as it is most important to gain a clear understanding of what e-learning is, we present some definitions and related terminology of the e-learning world.

II. Types of E-Learning

There are basically two types of e-learning: synchronous and asynchronous.
Synchronous, means "at the same time," involves interaction of participants with an instructor via the Web in real time. 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 [3]. Student learning and retention rates improve without sacrificing the convenience, cost-effectiveness and customization of self-paced Web-based coursework. Blended learning offers:

- Social benefits from classroom training, focusing on learning that gains the most from face-to-face interaction.
- Individualization benefits of self-paced, online learning for content that requires minimum interaction.
- Cost savings through minimizing the time away from the job and travel/classroom/instructor expenses.
- Greater flexibility to meet the different learning styles and levels of the audience. [4]

III. Scope of E-Learning in India

E-Learning can be considered at two levels. The first one is at educator level and another one is trainer level. For educator, it can be used at both elementary and higher levels. But In trainer, it can be used by companies to train and upgrade their employees. E-Learning permits the delivery of knowledge and information to the learners at an accelerated pace, opening up new circle of knowledge transfer. Early adopters are companies that have tried to supplement face-to-face meetings, demonstrations, training classes and lectures with this technology. ―The adoption of e-learning in all spheres—corporate, schools, universities, etc—is low at present. The Indian market is not substantial when compared to the international market. E-Learning in India has been most successful in the corporate segment where it is seen as a

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means of achieving business goals and motivating employees [5]. A lot of work has to be done to make e-learning successful for education, both formal and informal and to cultivate faith of people in online degrees in India apart from the ones given by renowned institutions like IITs[6]. Today, E-learning has already bordered beyond the academe. It is now an option used by companies to educate their employees on information dissemination, training and more. By using this route of instruction, millions of dollars will be saved by companies in training and educating their employees [7]. If e-learning reaches the remote and rural parts of India, it would be much faster to educate people. One major problem faced by India is that almost all highly skilled professionals are based in bigger cities that deprive the rural population from getting educated through them. E-learning simplifies this process by taking the knowledge to masses provided that there's internet connectivity available at some nearby area. Even in the area of higher education, the supply and demand are not balanced. Looking at the population, the available universities are not enough to accommodate all the people seeking education. At this point distance education comes in and has already been quite popular. E-learning can play a major role even here..

IV. ADVANTAGES OF E-LEARNING

There are several advantages of e-learning. First, Users are able to proceed through a program at their own pace. Users can access an e-learning course anytime, anywhere, and learn only as much as they need. E-learning can be accessed by Web browsing software on any platform. A training program can be delivered to any machine over the internet or intranet without having to author a program for each platform. Most computers have access to a browser, are connected to the organization's intranet or the internet. There is no need for a separate distribution mechanism. If changes need to be made to a program or courseware after the first implementation, these changes are made on the servers storing the program or courseware. Everyone worldwide can instantly access the update of information. There are no travel costs for bringing remote employees to a centralized workshop. Not only from a qualitative standpoint (i.e. pedagogical by the use of a new method, personalization, learner autonomy, memorization and follow-up, operational by learning by opportunity and the speed of the learning updates, and organizational by creation of knowledge sharing community) but also from a quantitative standpoint (i.e. learning elapse decreases, learning cost may be reduced and learning effectiveness is increasing).

V. DISADVANTAGES OF E-LEARNING

Besides the advantages of e-Learning, there are some disadvantages too. The first and fare most is Limited bandwidth. It means slower performance for sound, video and intensive graphics, causing long waits for download that can affect the ease of the learning process. Future technologies will solve the problem however. Besides this, there are some other drawback with E-learning There is a general concern that as we move towards more computer usage, a terminal will replace a friendly face. Gradual introduction of e-learning or the use of blended learning may be the answer to this concern. E-learning programs are too static. The level of interactivity is often too limited. E-learning systems take more time and more money to develop then expected. This is indeed the case, as it is with any new technology that is implemented. It is easier by starting with an easy program and building on success. Not all courses are delivered well by computer. Some training topics are not best served by computer based training and require a more personal touch. Team building issues and dealing with emotional issues are two examples. Progress in the field of e-learning has been relatively slow when compared to other 'fields'. A lot of web-based systems are not better than systems that were developed 15 years ago. Still, focus is often on how to develop a lot of courses and not on how to improve the quality of learning.

VI. THE PRESENTATION TOOLS FOR E-LEARNING

The advent of e-learning has been a shock to some people. Flexibility is a huge issue. The administration may have courses taught face-to-face, online, or hybrid—to meet the needs of the institution, the department, the faculty, and/or the students. For the faculty, online courses permit them to multitask and be ―in two places at one time. And for the students, they may take classes simultaneously at institutions anywhere in the world. Competition is steep for online courses, especially when many institutions offer the same course and the transferability from one program or institution to another is fairly uncomplicated. Teaching strategies for online courses do not necessarily parallel those strategies used in a face-to-face class. It is paramount that instructors receive adequate training in using the technology as well as knowing (and using) strategies which are most appropriate for online learning. Not only should instructors be trained to use a course management system, but also it would be beneficial if students received some type of official training in how to participate in an online course; this ―introduction could be in the form of a required course or perhaps even a tutorial which must be completed satisfactorily prior to registration for an online course. The technology demands of an online course can create chaos for faculty and students alike. The institution has an obligation to provide appropriate technology for the online course. The students, in turn, have an obligation to meet the minimum technology standards established by the institution. Of course, a dial-up system of interconnect can be a challenge, and faculty need to determine options that can be readily received by these users. Technology enabled learning is evolved through a combination of hardware, software, media delivery system and communication systems including networking [8].
Desktop, laptop or notepad, palmtop or hand held computers, electronic blackboard, electronic writing pads, mouse, trackball, joystick, light pens touch screen, optical mark / character recognition, bar code reader, digitizing tablet or digitizers and a cursor (puck) or a pen (stylus), speech or voice input device, printers, scanners, copiers and faxes are some of the hardware devices. Software's includes voice recognition, hand writing recognition, information management programs, learning packages in removable disks and in hard disks, data base management and data processing software's, information banks (dictionaries, encyclopedias, almanac, references), digital books, educative games, programmes and languages, skill Training, self learning packages, edutainment (education and entertaining)

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software's, presentations, word processors, spreadsheets, designers, audio and video animating and editing softwares.

Delivery systems includes audio and video conferencing aids, dishes and antennas for satellite communication, web cameras, digital video and still cameras, cell phones, speaker phones, telecommunication linkages, modem, server, LCD and/or D.L.P. Projectors. Some communication services include, telegraph, dialog (telephony, video telephony, telemetry, teletext, telex, videotext, facsimile, video surveillance, Electronic Meeting Systems (audio, video, groupware, teleconferencing.), Retrieval (videotext, broad band), Messaging (voicemail, video mail, electronic mail), etc. Communication technologies are generally categorized as asynchronous or synchronous. Asynchronous activities use technologies such as electronic mail, blogs, wikis, and discussion boards. Synchronous activities occur in an online chat session or a virtual classroom or meeting. [9]

VII. CHALLENGES FACED BY E -LEARNING IN INDIA

Over the last 50 years, the Government of India has provided full policy support and substantial public funds to create one of the world's largest systems of higher education. These institutions, with the exception of some notable ones, have however, not been able to maintain the high standards of education or keep pace with developments in the fields especially in knowledge and technology. Over time, financial constraints with exploding enrolments, and a very high demand from primary and secondary education has led to the deterioration in the financial support provided by the government. On top of this, an overall structure of myriad controls with a rigid bureaucracy has stifled its development. Majority of population staying in rural areas and making them aware about the concept of e-Learning is a major challenge. Lack of infrastructure in terms of connectivity, availability of Internet, etc. is another issue. The government is taking various measures to improve the communication systems and new technologies like 3G in the telecom space have already started to be implemented to make things better. Social Implications of E-Learning is another segment of study that is very important to be understood for the success of e-learning in India. The social implications of e-learning may be categorized into the following types of issues: cultural, gender, lifestyle, geographical, religious/spiritual, literacy, disabilities, and digital divide. Within the cultural issues category are content, multimedia, writing styles, writing structures, Web design, and participant roles. Some content, although crucial to the course, may be either unacceptable or unfavorable with certain members of the class. If faculties are aware of a sensitive component of the discussion or material covered, how can that faculty member lead the class to include or exclude the materials? Even writing styles can impact the process of holding an online course. The students and instructor need to know the ―rules of the road of written assignments. And, what participant roles are expected and/or tolerated; and, if the expectations are not met, who is responsible for keeping discussions and homework on track? Gender issues continue to be a part of class, even though people are separated by miles and even continents. Possibly it is the instructor's responsibility to monitor facilitation and rotate leadership roles in groups to assure gender neutralization. Any behavior issues must be addressed and corrected immediately. Lifestyle differences take on any number of forms, and the instructor will need to be on guard to assure equal treatment of class members, regardless of their respective lifestyles and preferences. In some situations the students themselves will take on this monitoring role, while in other situations the instructor must step in. The ―different strokes for different folks adage must be maintained—preferably with a minimum of disruption to the entire class. Geographical issues and differences make be very apparent, especially when we are looking at a global perspective. For example, if a chat room activity is to take place, all impacted time zones need to be accommodated.

Within this category would also fall the insensitive locale jokes. And even the technology issue of Internet access needs to be considered. In some communities, dial-up access is the only possible means of interconnect; there are no alternatives. Religious and spiritual considerations must be addressed and honored. Perhaps it would be unwise for an instructor to require work be done on certain days, given that these days may be religious days for some religions; suggest, perhaps, a block of time when activities might be assigned. Sensitivity to religions is critical. Literacy should be a ―given ‖ for an online course, but it cannot be overlooked. Regardless of the level of the course, there will very possibly be people who lack certain skills (or at least could use improvement): reading, writing, information, and keying (typing) are skills which are necessary but may need improving. Disabilities must not be overlooked. The Digital Divide is the last category within these social implications to be discussed in this presentation and paper. Regardless of how the term ―digital divide is defined, it means there is a gap, whether this difference is between general and minority groups, men and women, persons with disabilities and the remainder of the population, young and older members of the class. It comes down to differences—those without something (whatever this something happens to be) and those without it. Accessibility to technology and the training to use this technology will help reduce the digital divide, the gap between the haves and the have-nots.

VIII. FUTURE 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. India has also developed an Open University system to encourage distance learning. Indira Gandhi National Open University (IGNOU) was the pioneer and now there are seven open universities in India offering over 500 courses. IGNOU has about 11,87,100 students on its rolls. Modern communication technology can be harnessed to effectively provide education through this medium [10]. A distance education Council has been set up and a common pool of

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programmes is available for sharing. Distance education with new information and communication technology promises to expand the frontiers of Higher Education as never before. This is because it costs 66 per cent less and the students need not leave their homes or profession. The internet and satellite technology are being put to use to further the cause of distance education. The Indian Space Research Organization (ISRO) is launching a dedicated satellite for educational purposes[11]. 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.

IX. FUTURE TRENDS IN E-LEARNING

E-learning will continue to grow in our organizations. In anticipation of this growth, the governments, business companies and professional associations can start focusing on applications and the effective and efficient implementation of e-learning. This concept has been expanding at a very rapid rate as more and more uses for the computer in education have been discovered and attempted. On the traditional college campus, there is a trend toward the development of a Virtual Learning Environment (VLE). The VLE concept integrates the full range of electronic enhancements into the classroom setting. Under the VLE idea, the instructor is not replaced by the computer but rather uses the computer to reach more students and to reach them more effectively.

Distance education is becoming more popular as more and more households obtain personal computers. Many schools have developed the idea of the virtual classroom to a high degree. One instructor located at a central location and using video equipment can teach simultaneous classes in several satellite locations. There is no limit to the distance these satellite locations can be from the instructor. Computer based training can be done in much the same way. Such things as emails and chat rooms are being used as part of the E-learning arsenal [12].

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One major trend in E-Learning is the spread of distance education from traditional subjects to all areas of knowledge. Trade and vocational schools are entering into the E-learning field. Such things as .net training videos have allowed the computer to be used for teaching any subject that can be imagined. Do it yourself manuals have entered the computer age. Informational websites can conduct practical training in any subject using videos that are accessible on the website to illustrate proper techniques. This trend has spread to include everything from dog training to basket weaving.

X. CONCLUSION

In a market such as India where the concept is still new, one crucial element that will make a difference in generating a good response is marketing. This not only holds true for segments such as government and education, but for the corporate sector as well. The past decade has been a time of rapid change as E-learning has replaced traditional learning methods. It can be expected that we have not peaked out and the future is going to bring innovations that can hardly be anticipated. The internet access of cell phones, and the wide spread use of palm pilots and lap top computers is opening new opportunities for education and learning.

Experts are of the view that there needs to be a mindset for the adoption of e-learning. The other point is content. If content providers are giving off-the-shelf content, there should be scope for customization since each organization has its own needs. Regions without university education can access universities in other regions via the Web, a solution much cheaper than building university infrastructure. In underdeveloped countries, e-learning can raise the level of education, literacy and economic development. This is especially true for countries where technical education is expensive, opportunities are limited, and economic disparities exist. However, one of the problems with e-learning in India is the lack of course content, especially outside the mainstream focus areas of IT education, English-language content, and tutorial-like courses. There will be high demand for people who can develop multi-lingual courseware that addresses various topics. The social implications of online learning center around one primary requirement that students need to feel a part of the class, regardless of where they are located physically or geographically. The ―missing of connection ‖ to the other students in the class and with the institution can impact the success of an online student. Bottom line: the Indian market is still young, but it will continue to adopt the concept of e-learning in order to meet its communication needs and seize business opportunities.

REFERENCES

[1] http://www.articledashboard.com
[2] Rhys Gwyn (ed.) (1986): "Teaching and Learning with new Technologies", ATEE Brussels 1986
[3] "How to Design Effective Blended Learning", by Julie Marsh and Paul Drexler, November 2001, brandon-hall.com.
[4] http://www.nwlink.com/~donclark/hrd/elearning/blended.html
[5] www.itpeopleindia.com
[6] 'Is there a case for eLearning in India', www.gurukulonline.co.in
[7] http://maysmith.articlealley.com/the-importance-of-elearning-690018.html
[8] E-Learning, www.nextwavemultimedia. com /html/profile.html
[9] Dr. Shobana Nelasco, Mr. A. Nilasco Arputharaj & Er. G Alwinson Paul, "e-Learning for Higher Studies of India", Fourth International Conference on eLearning for

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Knowledge-Based Society, November 18-19, 2007, Bangkok, Thailand.
[10] http://en.wikipedia.org/wiki/Indira_Gandhi_National_Open_University
[11] http://en.wikipedia.org/wiki/Indian_Space_Research_Organisation
[12] Article Source: http://EzineArticles.com/496477

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