



E-learning Methodologies: The Future of Learning in India

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Abstract: *E-learning is the use of electronic devices and Internet technologies to deliver a variety of solutions to enable learning and improve performance. The different categories of e-learning that includes informal and blending learning, network and work based learning. The main focus of e-learning methodologies is on both asynchronous and synchronous methodology. The paper also looked into the three major e-learning tools which are Curriculum tools, Digital library tools and Knowledge representation tools. The paper resolves that e-learning is a revolutionary way to empower workforce with the skill and knowledge it needs to turn change to an advantage. This review paper discusses on e-learning methodologies and tool.*

Keywords: E-learning; Synchronous; Asynchronous; Tools Methodology; Knowledge management

I. INTRODUCTION

E-Learning is as an approach to instruction and learning that utilize Information and communication technologies to communicate and collaborate in an educational milieu. This includes technological expertise that supplements traditional classroom training with web-based components and learning environments where the educational process is experienced online. This paper reflects the importance of e-learning in higher education with its extent and growth in Indian. Some of the major Indian initiatives and the target segments covered by the online education have also been detailed in this article. Emphasizes the importance of perception in relation of information technologies and communication, so that futures leaders will be better prepared regarding these technologies (9,10).

II. e-LEARNING IN INDIA

Due to the growing Indian economy, India has a chance to become heart of e-learning programs. There are many e-learning classes which are coming to India to build and develop e-learning infrastructure. The e-learning does not seem to replace the conventional classrooms with black boards but it seems to coexist with the already existing system. This system rather promises to reach too far off rural areas in India where education is still a looming darkness. This objective can be achieved by providing PCs at low cost with broadband connection. The chances of e-learning to strengthen the educational system in India are very high. The Government has also come forward undertaking the programs of upgrading the technical quality of the fresh graduates inciting them to into research and teaching professions. The e-learning is fast growing and seems to take control of the world because of its educational advantages (7,8). The scope of e-learning is much wider in India with many e-learning companies stepping forward in providing the service. Though nothing can actually outrun the popularity of traditional classroom teaching, e-learning only gives more value to the process, independent of the distance factor. In India, e-learning scenario is still growing and at an experimental stage. The traditional mindsets are changing, with the corporate and business sector leading the way in embracing technologybased learning networks. Many institutions have started augmenting teacher-led programmes with content-rich e-learning modules. Government initiatives are not far behind either. The projection for further development of distance e-Learning in India is positive. Several efforts are currently progressing towards providing quality distance learning to more people in urban and rural areas, through the utilization of more effective web resources and practices. The major hindrance to the acceptance of e-learning can be attributed to the Indian mindset that is more inclined to traditional classroom teaching. The visibility of e-learning is currently limited to IT and educational



CDs, but With PC penetration and overall online accessibility increasing in the country, the future of e-learning looks promising, provided the organization of content and delivery is well-structured.(1,2)

III. e-LEARNING METHODOLOGIES

E-learning exploits Web technology as its basic technical infrastructure to deliver knowledge. As the current trend of academic and industrial realities is to increase the use of e-learning, in the near future a higher demand of technology support is expected. In particular, software tools supporting the critical task of instruction design should provide automated support for the analysis, design, documentation, implementation, and deployment of instruction via Web. The main focus of e-learning methodologies is on both asynchronous and synchronous methodology, Synchronous interaction, requires that all participants of interaction are online at the same time. Examples include Internet voice telephone, video teleconferencing, text-based chat systems, instant messaging systems, text-based virtual learning environments, graphical virtual reality environments, and net based virtual auditorium or lecture room systems. Synchronous interaction promotes faster problem solving, scheduling and decision making, and provides increased opportunities for developing. Heron et al. (4) studied the interaction in virtual learning groups supported by synchronous communication. They found that learning in virtual environments can be greatly enhanced by content-related dialogues with minor off-task talk, coherent subject matter discussion with explanation, and equal participation of students supported by synchronous interaction. However, the cost of synchronous interaction is usually very high, and synchronous interaction is more constricted due to time differences. The second one is asynchronous interaction, in which learners or tutors have freedom of time and location to participate in the interaction, examples including interaction using e-mail, discussion forums, and bulletin board systems. It has been reported that by extending interactions to times outside of classes, more persistent interaction and closer interpersonal bonds among students can occur. Thus, while one cannot totally simulate a real classroom with synchronous interaction, one can offer asynchronous interaction that provides time for better reflection, and allows global communication un-bounded by time zone constraints. Asynchronous interaction thus is more commonly provided in Complete Supported Collaborative Learning (CSCL) systems than the costly synchronous interaction.

IV. e-LEARNING TOOLS

e-Learning tools are three types:

1. Curriculum tools provide a systematic and standard environment to support classroom learning; their functions are particularly helpful in the initiation and selection stages. A typical commercial curriculum tool includes three integrated parts:
 - a. Instructional tools include curriculum design and online quizzes with automated grading.
 - b. Administration tools include file management authentication, and authorization.
 - c. Student tool functions include:
 - Browsing class material: readings, assignments, projects, other resources
 - Collaboration and sharing: asynchronous and synchronous bulletin boards and discussion forums.
 - Learning progress scheduling and tracking: assignment reminders and submission, personal calendars, and activity logs.
 - Self-testing and evaluation: tests designed by instructors to evaluate student performance
 - WebCT and Blackboard are the most popular commercial curriculum tools.

In general, these tools are tailored more to support class activities than independent research or self-study.

2. Digital library tools facilitate effective and efficient access to resources to support exploration and collection. Digital library tools help users find the right information amidst a huge amount of digital material. Digital library features usually include search, browsing, and discovering special collections or exhibits. Search and browsing are used to locate resources and explore related topics. Special collections or exhibits contain organized materials representing a unique treasure for interested users.
3. Knowledge representation tools focus on formulation and representation. This tool help learners to visually review, capture, or develop knowledge.

The e-Learning evolution proposes a good number of tools assisting the instructional designer during the analysis, design, implementation, and delivery of instruction via the Web. If on one side an automated support should be provided by authoring tools on the other side these tools should implement suitable e-learning process design methodologies.

V. FUTURE OF e-LEARNING IN INDIA

India needs to increase penetration in terms of PCs and communication lines for any e-learning project to be successful. The soaring cost of ownership, which proves to be a hurdle, needs to be lowered. (3,5,6)

Following steps could help in arresting the above problems:

- The Service providers, including the Government need to cut the tariff levels. As the field becomes more and more competitive, this is bound to happen.
- The government needs to stimulate a learning culture and e-learning must become a policy issue. Government must distinguish the e-learning industry as a separate forum and not treat it as part of the IT enabled services or a sub sector of the IT industry.
- Use of open source software will not only be cost effective but can also meet the localized demands for the vast linguistic diversity of India. Further, open source software can also be used on old hardware

VI. CONCLUSION

The e-learning is emerging as the future trend of learning in India would be dominant in the times ahead. E-Learning has created new dimensions in education, both within and beyond the curriculum and is still looking at further opportunities of becoming more practical. E-learning is among the most important explosion propelled by the internet transformation. This allows users to fruitfully gather knowledge and education both by synchronous and asynchronous methodology to effectively face the need to rapidly acquire up to date know-how within productive environments. E-learning delivers content through electronic information and communications technologies (ICTs). Educational Institutions need to have suitable strategies in place for successful deployment of the e-learning process. Finally this paper conclude that synchronous tools should be integrated into asynchronous environments to allow for "Any-time" learning model and e-learning will soon substitute classroom learning in India.

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