

CORE

Shwetha J Rao* et al. (IJITR) INTERNATIONAL JOURNAL OF INNOVATIVE TECHNOLOGY AND RESEARCH Volume No.8, Issue No.2, February – March 2020, 9497-9500.

Literature Based Study on E- Learning

SHWETHA J RAO PG Student, Vivekananda College, Centre for Post Graduation and Research, Puttur, Affiliated to Mangalore University. **Dr. S. SRIDHAR** Ex. Vice Chancellor, DKNMU, Rajasthan, Currently President Advisory Board, pecinstitute.com, Distinguished Advisor, infisum.com Founder President and CEO, sbyte.tripod.com

Abstract: The Learning style of every individual is unique. We require some adaptive and personalization techniques to extract required learning content from enormous content available. An adaptive learning system is developed by considering learner's knowledge. It takes the individual's performance into consideration and modifies constantly by responding with student specific learning content. Based on the results obtained and on his/her choice of content displayed. Learner's performance is observed and modelled, adaption is done accordingly through continuous appraisals conducted after each module and tweaked during interactions. Educational institutions have adopted the use of information and communication technology (ICT) at various levels ranges from communication, examination and even human resource management. This paper explores the use of e-learning in enhancing teaching and learning in educational institutes. Finally, the paper recommends that e-learning platforms should be used at various levels of educational institutions, government and education regulatory bodies should enforce the adoption of e-learning in addition to conventional teaching modes, and teachers should be encouraged to share learning materials and tasks to students using electronic means.

Key words: ICT; E-Learning; Adaptive Learning System; Conventional Models; Electronic Means

INTRODUCTION

E-Learning is the future of India. It's the most effective and efficient approach of adaptive learning. This paper explores the relevance of elearning and highlights the utility of e-learning in the modern era of 21st century. This paper is to review the different e-learning techniques and their role on developing country like India. This paper highlights the significance of E-learning in modern education. Presently the concept of E-learning is becoming very popular as the numbers of internet savvy users are increasing. Faster bandwidths have immensely helped in boosting the growth of ELearning. Many institutions of higher education and universities are resorting to E-Learning. Big corporate companies are also heavily investing in E-learning and setting up interactive classrooms. Indira Gandhi National Open University (IGNOU), the world's largest Open University launched a 24x7 E-learning satellite channel called Gyan Darshan. E-learning gives the advantage of 24x7 and 365 days a year round access as compared to Instructor-Led Training, which is one time class that must be scheduled. E-learning is cost effective as course content once developed could be easily used and modified for teaching and training. Elearning also provides students freedom from carrying heavy school bags and stop cutting of trees for the sake of paper, pencil and rubber. E-learning is the future of education as it is interactive, interesting and entertaining way of learning, and will soon replace the paper books in the form of touch screen tablets. Though digital technology is the recent development in India, it has brought a great revolution in the civilization. From finding a

new house to reading the newspaper, from booking a flight ticket to online streaming, online data is coherently used. The impacts of digitization are also visible in the field of education. The Elearning industry in India is a prolific one, witnessing a steady growth rate of 25 per cent yearon-year and is projected to be a \$1.96 billion industry by 2021. With a network of more than 1.5 million schools and 18,000 higher education institutes, the market for digital education in India is enormous. Today, digital learning is no longer a luxury but has become a necessity in education and career. E-learning involves acquisition of knowledge and skills using electronic technologies such as computer and internet . It gives an opportunity to access and share learning materials in various formats such as word document, PDF, PPT slideshows, audio and videos for demonstration, chat and messaging forums for interactions with instructors or other learners. Therefore, this paper will explore the use of e learning in enhancing teaching and learning in educational institutes. This can be achieved with the following objectives: 1) To identify the current practice of e-learning in educational institutes. 2) To identify the level of enhancement e-learning made to educational institutes.

LITERATURE REVIEW

Before the evolution of internet, distance courses were offered to students on particular skills or subjects. In 1840s, Isaac Pitman usually teaches his students shorthand by correspondence. In 1954, a Harvard university professor invented a teaching machine that allowed schools to manage instructions to students. In 1960s, the first



computer based training (CBT) program known as PLATO (Programmed Logic for Automated Teaching Operations) was introduced to the world. PLATO was originally developed for students of Illinois university but later ended up being used by other schools within that area.

E-learning and open University

In 1970s, e learning became more interesting and interactive as Britain Open University was interested to take the advantage of e learning. Their educational system was purely on learning at distance. Course materials are usually delivered to students through post and correspondence with tutors or instructors are done through mail. In essence e-learning is learning through electronic means. It includes online acquisition of knowledge and skills via electronic media. Online learning has widened the scope of education and transcended it beyond classroom boundaries. With high internet penetration in the last two years, it has taken over the traditional methods not just in the urban landscape but also in rural areas. The education system is evolving at a very fast pace, online education platform upGrad co-founder and MD Mayank Kumar said, "With industries directly connecting with e-learning institutions like ours, content has never been so up". E-learning gives us the advantage of 24x7 and 365 days a year round access as compared to Instructor-Led Training (ILT), which is one time class which must be scheduled. E-learning is convenient to learner in comparison to ILT which has scheduling conflicts and inconvenience.

E learning course content

E learning is cost effective as course content once developed could be easily modified in future, used for teaching and training, whereas ILT is expensive as there are several costs associated with it like teaching course development cost, good professional cost, printing cost, paper cost, infrastructure cost, electricity cost, training material cost, stationary cost, travel expenses, meal expenses, lodging expenses, parking expenses, and several other costs are associated with it. One advantage of ILT over E-learning is the physical presence of instructor in a classroom, who can solve the queries of students instantly. E learning provides students to learn at their own speed, but in ILT students are pushed through course in specific time frame, also ILT is not self-paced. In Elearning student can learn what is important and can skip unnecessary information, but in ILT all students are taught all the information and at the same level as rest of the class. After considering all these factors, it can be said that E-learning is far better, inexpensive and learner friendly way of learning as compared to the old fashioned ILT. ILT

may include information that is not relevant to the learner.

E learning courses

With E-learning courses, a learner can filter through the course and participate only in the section that is relevant to his current position. This saves the learner's and the company's time and cost. Most companies gain significant returns from even modest investments in E-learning technology. E-learning customers have quickly Most recognized first tier benefits, including reduced costs for travel, customer support, human resources overhead, and regulatory compliance and eventually second-tier benefits, such as increased employee performance that directly impact profitability, found that 85% of the faculty teaching online courses felt that student learning outcomes were comparable to or better than those found in face to face classrooms. E-learning has an advantage in nearly every area, including efficiency and velocity. According to a Brandon Hall article in Forbes, online learners enjoy an efficiency advantage in being able to cover the same material in approximately half the time of a traditional class. In addition, E learning has a velocity advantage by being able to reach a large number of learners in a shorter time.

Velocity advantage

To understand this velocity advantage, think about a classroom event that needs to be scheduled weeks in advance, but E-learning can enable instant access to knowledge at exactly the point in time it is needed. Anytime, anywhere, anyone including employees can access training when it is convenient to them, at home or in the office observed that in most cases the benefits of E learning outweigh the benefits of ILT. Offering training through an E-learning format provides many advantages to the learner. Of course, some courses may be better suited for a blended learning approach but overall E-learning has supremacy over ILT.

CONCLUSION

The concept of E-learning is getting very popular these days, as many universities are offering degree and diploma programs through E-learning mode. Many big companies are investing in E learning and setting up their interactive classrooms like Reliance and Tata. Also subject matter experts are developing new and versatile tools to create Elearning modules. One of the major drawbacks of ILT in institutions is the weight of school bags that learners have to carry on their shoulders and face the problem of backache. Also, as the number of trees is becoming less and less by each passing day due to cutting of trees for manufacturing paper,



pencil and rubber; though banned by most governments in their respective countries, is making way for E-Learning. E-learning will overcome these drawbacks, if instead of heavy school bags, each learners is given a tablet with the course content fed in it, which would be much more attractive, enjoyable and thoughtful decision to take in the present era of modernization. Thus, the day is not far away when E-learning. E-learning is a platform that provide institutions with means of improving teaching and learning activities. It enhances students-teacher relationship and provide students with means of interactions among themselves. This paper highlighted the importance of e-learning to educational institutions and also describes different levels of e-learning interactions adopted by various schools. The study makes the following recommendations: E-learning platform should be employed at various levels of educational institutions. Government and education regulatory bodies should enforce the adoption of e-learning platforms in addition to conventional teaching mode. Teachers should be encouraged to share learning materials and tasks to students using electronic means. this paper we have discussed the importance of personalization for enabling proficient e-Learning forms. It gives the learner the right content based on one's performance so that it fits well. Even if learner in higher levels are given access to lower levels. We are not limiting the user to the higher levels with a view that they may want to refer or learn previous topics in any circumstances. The tests conducted after each chapter not only allows the learner to know his abilities and can keep track of his performance and the areas yet to be improved but also the system to keep track of user's performance and provide the necessary suitable content. Moreover, learner can easily access the right content without searching for longer time. The learner can view the complete progress along with the number of attempts and score obtained for each attempt, final score, Percentage of tests completed. More number of languages and topics can be added in the future. There also may be a possibility to develop the content based on user's qualification. Test assessment patterns may be more advanced.

ACKNOWLEDGEMENT

History of all great work is to witness that no great work was ever done without active or passive support of person's surrounding one's close quarters! I am highly thankful to Dr. S.Sridhar for his active support and guidance, as a Fair Guide, throughout the completion of this paper. He played a vital role in finalizing the paper within short span of time and recommended for publication in the international reputed journal www.ijitr.com

REFERENCES

- "A new approach for integrating social data into groups of interest", Ahad, A., Yalavarthi, S. B., & Ali Hussain, M.
- [2] "A Personalized E-Learning based on Recommender system"
 OutmaneBourkoukou, Essaid El Bachari and Mohamed El Adnani
- [3] "A Personalized E-Learning Framework" Mohammed M. Alhawiti, Yasser Abdelhamid
- [4] "A Systematic Approach to improving E-Learning implementations in High Schools" Bens Pardamean and Teddy Suparyanto
- [5] "Adaptive Education based on Learning Styles: Are Learning Style Instruments Precise enough?" AlzainMeftahAlzain, Steve Clark, Ali Jwaid, GrenIreson
- [6] "An Approach to Personalized E-Learning" Matteo Gaeta, Sergio Miranda1, Francesco Orciuoli1, Stefano Paolozz, Antonella Poce
- "An expert system to assess memory power of a student for selection of a suitable career", Chandra Prakash, V., Sastry, J. K. R., Kantharao, V., Sriharshini, V., Sriram, G., & Ganesh, C. H. V. S.
- [8] "Analysis of Personalized E-Learning system on the basis of Behavioral Data Mining" Duoduo Liu, Lihua Zhang
- "Applicability of sudoku game for building the cognitive model of a student for career assessment - an analytical study", Prakash, V. C., R. Sastry, J. K., Anusha, K. B., Spandana, A. B., Dhatrija, N., & Nikhil
- [10] "Comparative analyses of query evaluation overhead in various data models", Uday Kumar, V., &Sreeram, N
- "Development of research & development dashboard for an university", Subrahmanyam, K., Ketha, T., Balakrishna, S., & Kumar, T. N. M.
- [12] "EOBAA: Enhanced ontology-based alignment algorithm for mining frequent patterns", Srinivasa Rao, D., Sucharitha, V., &Satyanarayana, K. V. V.
- "Intelligent [13] Recommendations for e-Based Learning Personalization on Learner's Learning Activities and Performances" DamindaHerath, LashmanJayarathne



- [14] "IoT (internet of things) based smart Elearning campus", Nithin Rao, K., &Sreenivasa Ravi, K.
- [15] "Machine learning techniques to improve the results of student performance", Mohiddin, S. K., Kumar, P. S., Sai, S. A. M., &Santhi, M. V. B. T.
- [16] "Student information system and performance retrieval through dashboard", Phani Krishna, K. V., Mani Kumar & Aruna Sri, P. S. G.
- [17] "Study of prediction algorithms for selecting appropriate classifier in machine learning", Anila, M., &Pradeepini, G.
- [18] "Use of Unsupervised Clustering to Characterize Graduate Students Profiles based on Educational Outcomes" LotfiNAJDI, Dr. Brahim ER-RAHA
- [19] "User behaviour profiling in cloud using one class SVM: A review", Paruchuri, V. L., Suresh Babu, S., Sridhar, P. S. V. S., Bhattacharyya, D., & Kim, H.
- [20] Dauda, A. Safiriyu, E. Ditimi, A. and Mohammed, A. (2011) Towards a Model of E-learning in Nigerian Higher Institutions: An Evolutionary Software Modelling Approach. Information and Knowledge Management, Vol.1 no. 1. Retrieved from http://www.iiste.org/Journals/index.php/IK M/article/view/688 on 26th September, 2016.
- [21] Dobrin, J. (1999). Who's teaching online? ITPE News, 2 (12): pp.6-7.
- [22] http://kineo.com/nz/elearning-market/elearning-market-update-september-2011.html (accessed on
- [23] http://www.prnewswire.com/newsreleases/worldwide-elearning-market-toreach-499-billion-by-2015-125779153.html (accessed on 1.1.2012).
- [24] Joi, L.M., Camille, D. and Krista, G. (2011) E-learning, Online Learning, and Distance Learning Environments: Are they the same? Internet and Higher Education, 14, pp129 – 135.Retrieved from https: //scholar.vt.edu/ access/ content/ group/ 5deb92b5-10f3-49dbadeb-7294847f1ebc/e-Learning%20Scott%20Midkiff.pdf on 26th September, 2016.
- [25] Kahiigi, E.K., Ekenberg, L., Hansson, H., Tusubira, F.F. and Danielson, M. (2008) Exploring the e-Learning State of Art. Retrieved from

www.ejel.org/issue/download.html?idArticl e=67 on 26th September, 2016.

- [26] LLC, Epignosis (2014). E-learning Concepts, Trends, Applications. San Francisco, California, USA. Retrieved from https://www.talentlms.com/elearning/elearni ng-101-jan2014-v1.1.pdf on 25th January, 2017.
- [27] McLeod, D. (2006). E-learning Training Vs. Instructor-Led Training, San Francisco State University, ITEC 865, Professor Brian Beatty, USA.
- [28] Naidu, S (2006). E-Learning: A Guidebook of Principles, Procedures and Practices, 2nd Revised Edition, CEMCA.
- [29] Nima, J.N. and Batool, Z. (2015) A Model for Assessing the Impact of E-learning Systems on Employees' Satisfaction. Computer in Human Behaviour, 53, pp475 – 485. Retrieved from https:// pdfs. semanticscholar. org/93ed/ cce65bcd843 bb1b7e 2e37efa0a75447a6eb8.pdf on 26th September, 2016, pp.75-79.
- S. Hrastinski. Asynchronous & Synchronous E-learning. Education Quarterly 31(4) 2008.
 Pp51-55. Retrieved from http://er.educause.edu/~/media/files/articledownloads/eqm0848.pdf on 25th January, 2017.
- [31] Sharma and S. Vatta. Role of Learning Management Systems in Education. International Journal of Advance Research in Computer Science and Software Engineering. Vol.3 issue 6, 2013.
- [32] Shea, R.H. (2002). E-learning today—As an industry shakes out, the survivors offer nofrills education for grown-ups. U.S. News & World Report.
- [33] Sun, P.C., Tsai, R.J., Finger, G., Chen, Y.Y. and Yeh, D. (2008). What drives a successful e-Learning? An empirical investigation of the critical factors influencing learner satisfaction, Computers & Education 50: pp.1183–1202.
- [34] Zhang, D., Zhao, J.L., Lina-Zhou and Nunamaker, J. F. (2004). Communications of the ACM, 47(5):