

High-Quality Education using E-Technology

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Abstract: E-learning, distant learning, online learning, or web-based learning are terms used to describe learning that takes place on the Internet. With the help of this study technique, students can learn without an instructor present. ICT is essential since the information technology revolution has given education new opportunities. Learning is now a constant process to meet societal expectations rather than a one-time event that prepares one for a fruitful life. Journal entry evaluation can now take as much or as little time as the instructor want to commit to the task. Despite research showing that a range of strategies can yield much greater benefits, e-journaling is nevertheless utilized to its full capacity as an instructional strategy. E-learning is the delivery of information for training and education through the use of telecommunication and information technology. E-learning is a web-based platform that provides users or learners with access to knowledge or information.

Keywords: LMS, ICT, E-Journaling, EDUSAT, E-Learning, CAL, CML

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. The learning can be on any level, elementary school, college, or corporate. E-learning is a term that has been associated with similar terms like E-education, Electronic learning, Internet learning, CBT (Computer-Based Training) to mention a few. E-learning is emerging as the paradigm of modern education. E-learning is mostly associated with activities involving computers and interactive networks simultaneously. The computer does not need to be the central element of the activity or provide learning content. E-learning may also be used to support distance learning through the use of WANs (Wide Area Networks) and may be considered as a form of flexible learning where just-in-time learning is possible. Courses can be tailored to specific needs and asynchronous learning is possible. Where learning occurs exclusively online, this is called online education.

II.E-learning: It is a web-based system that makes information or knowledge available to users or learners and disregards time restrictions. E-learning represents just one part of the learning process. It has to be completed by e-teaching, while the overall process is called e-education. E-learning, web-based learning and distance learning is associated with activities involving computers and interactive networks simultaneously and the latter must hold a significant involvement in the learning activity. It highlights that the process of learning has different psychological theories that guide the learning design. These fundamentals create differences that can impact on the outcome of offering depending of the theory used and how well the teacher understands the concept and their application. Learning is an ongoing process that has to be done on daily basis to keep the process alive and the knowledge acquired in use and in a productive manner.

Advantages:

E-learning opens up a wide spectrum of information to learners and exposes them to research. With e-learning the geographical differences do not matter, everyone who has access to the Internet can learn anytime anywhere. 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

Disadvantages:

- Students may feel isolated or miss social interaction.
- Some courses such as traditional hands-on courses can be difficult to simulate.
- Lack of familiar structure and routine may take getting used to.
- Instructor may not always be available on demand.
- Slow or unreliable Internet connections can be frustrating.
- Managing learning software can involve a learning curve.

III. Technologies of E-Learning:□ *E-commerce usage:*

E-learners still rely on textbooks and printed material in a paper-based format. It is an important source of information because it does not require the learner to access the information at a specific time. The process of placing the order for the needed material has changed with the introduction of e-commerce.

□ *Radio and television:*

The quality of these learning channels has changed with the introduction of Internet, cutting the distance barriers. Radio and television can be accessed via the Internet wherever you are in the world.

□ *Tele-conferencing:*

The use of teleconferencing, an e-learning system that enhances interaction between learner and facilitator, has solved this problem. Teleconferencing consists of four categories: Audio, Audio Graphic, Video and Computer teleconferencing

□ *Computer conferencing:*

Computer conferencing is the form of conferencing that has been impacted on by technological changes. It allows learners and facilitators to interact through a computer network. This can be through e-mail, chat room, file transfer, audio and videos. Computer conferencing has received a boost with telecom deregulation.

□ *Internet:*

Technology in 21st century has increased communication and cut down the time required to pass a message from one area to another. The continents have been closer than ever; thanks to Internet. Internet has reduced the time it takes to pass messages across the globe, and e-learning is taking advantage of this cutting age technology.

IV. Scope of Technology:

The future of e-learning looks extremely bright. 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. In 2003, Indian government launched an ambitious project of e-learning. 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

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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 populations becomes a reality.

Quality Improvement through ICT:

Teachers form the nucleus of any system of Education. ICT can revolutionize the entire teacher education system which is the need of the hour with the help of this technology. Teacher education needs to give more thinking into the different roles. A teacher needs to play to meet the new challenges in the information society & to help the young learners. In fact, teacher has to become more of an advisor, a partner or a facilitator to talk to. The role of the teacher is changing so fast that no amount of pre-service or in-service teacher education can probably cope with expectation with the society. Teacher needs to be conceived as a change agent and not as a mere transmitter of knowledge & culture. Knowledge generation & creation will get an immense boost. With the help of ICT a teacher can address three dimensions of education in more systematic way namely:

- Foundations, Contextual skills
- Professional competence
- Inter-personal skills, responsibility and accountability.

The use of this technology can make substantial change for teacher education mainly in two ways: **One:** the rich representation of information changes learners' perception & understanding of the context. **Two:** vast distribution & easy access to information because of economical, cultural and social constraints.

Benefits of Using ICT:

- It reinforces self-learning.
- It helps the teacher to go deeper into the subject and investigate new areas which enhances students' motivation to learn.
- It envisages more interaction between teachers and students and students and students.
- It helps teacher to learn by exploring opportunities.
- Appreciable amount of time saving.
- It helps in accessing high quality learning material.
- Computer assisted instruction enhance the self-confidence and self-esteem of students

Computer Assisted Learning (CAL):

The programmes used in CAL are designed to encourage the student to acquire knowledge by finding out on their own learning. It is often used to create "models" for experimental purpose. Using this learning programmes the students are provided with an opportunity to carry experiments which may not be feasible in real life. The advantages are: computer can be fed with the different sets of data in order to achieve different patterns of solutions, for different conditions.

Computer Management Learning(CML):

Here, the computer programme is designed not only to supervise a test but also to direct each student the next appropriate set of tasks. Computers also retain each student's record so that the teacher can find out at any time the progress an individual student makes.

EDUSAT:

It is the world's first satellite exclusively launched for educational purposes. The aim of EDUSAT is to set-up a sustainable distance education service in India using this satellite service as a supplementary communication medium and using advanced ground technology of convergence.

Journaling with Technology:

Any type of journaling can be successfully implemented in an electronic format. Today's technology provides

10.48047/jocaaa.2022.30.02.48

educators access to a variety of electronic communication tools, including threaded discussions and e-mail. Indeed, using this technology has several advantages over the traditional handwritten journal of previous generations. Most faculty and students are familiar with and check their e-mail accounts regularly. The electronic format prevents late or lost journals or miscellaneous papers being shoved under office doors. Submissions arrive within minutes of being sent, dated and time stamped. Simply clicking the reply button ensures the comments are sent directly to the correct student; no more shuffling of papers, toting stacks of notebooks home for grading, or struggling with piles of homework on the way to and from the classroom. E-mail is not perfect, however. Messages received by an e-mail system (independent of a course management system) must be organized within specified folders and can accidentally be filtered out or deleted, or lost in the myriad of other messages received during daily activities. Then there is the question of how long to save the messages: six months? A year? Two years? Using an online course management system, such as Black Board or WebCT, offers distinct advantages for instructors and students alike. The internal e-mail (within a course management system) uses threaded technology. This means that the original message is grouped with all subsequent responses. The ability to compile and print out these related messages is an added benefit. The online classrooms (including all student activities) can be archived and then restored in the future should the need arise. Course management software also provides useful discussion board capabilities that can be configured for private rooms used exclusively for personal journal entries and instructor responses. Each student has his or her own room, and the individual and the instructor are the only persons who have access to the confidential postings. Reflective writing assignments submitted via these private discussion rooms further increases the efficiency, and therefore effectiveness, of e-journaling, as compared to e-mail. Again, threaded technology organizes entries according to the topics, placing replies directly under the text to which they are responding. These entries can also be compiled and printed to preserve a hard copy for posterity.

V. Conclusion:

E-learning is not a methodology; it is a medium. Despite all the efforts and electronic devices, e-learning still cannot take the place of traditional classroom instruction, but it may undoubtedly raise learning standards and enhance the context of lectures. Physical infrastructure barriers like poor telephone line maintenance, lack of electricity, and distance from the kiosk or cyber cafe, economic barriers like extreme poverty, educational barriers like illiteracy and a lack of pertinent content in the local language, and social barriers like caste, gender, and community still limit e-learning. It is difficult to find information about the extent to which societal barriers limit access to technology. Though nothing is done to properly apply it, e-learning has the potential to revolutionize both society and the education industry. In the realm of education, it is not very well-liked. E-learning may not be appropriate for every student's learning style. To increase the popularity of e-learning among academicians and students, policies, planning, implementation, and awareness campaigns are desperately needed. In order for organizations to communicate with one another for ever-increasing societal advantages, e-readiness initiatives should be made. The nation will benefit from the efficient use of ICT in teacher education, which will accelerate the process of national development. Regarding the significance of "education and technology," modern technical developments in our culture have enormous potential advantages in classroom settings. Information and communication technology, or ICT, is the focus of the twenty-first century. ICT is essential to a nation's development since the information technology revolution has created new educational opportunities. Learning is now a constant process to meet societal expectations rather than a one-time event that prepares one for a fruitful life. Journal entry evaluation can now take as much or as little time as the instructor wants to commit to the task. As a teaching and learning tool, e-journaling is still not widely used. It's possible that many educators are unaware of its many advantages or are not familiar with the several technologies that can be used to apply it. There are numerous benefits to using journaling as a traditional teaching method in an electronic format. E-journaling improves remote learning sessions that employ video to link several locations and is perfect for reflective learning exercises in conventional classrooms. The "personal" connection that many online courses, in particular, lack is offered by this participatory forum. I've included a few of the many educational benefits of e-journaling here. Finally, ICT might be viewed as a new way to maintain and improve the caliber of teacher education.

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