Abstract

In the present era, E-Learning plays an important role in development of an individual and the Nation. Traditional learning is basically teacher centric. One cannot teach the same subject with the same best quality all the times. Moreover, a good teacher cannot teach at multiple locations at the same time. Therefore, what is the best solution to overcome these drawbacks of traditional learning? The E-Learning tools and technologies neutralize these drawbacks. The development of multimedia and information technology, as well as the use of Internet as a new technique of teaching, has made radical changes in the traditional process of teaching. E-Learning tools and technologies have become very influential for the scholarly growth of individuals and hence they play a vital role in the overall Development of Nation. Traditional learning have many disadvantages like high cost, constrained access, limited to classroom and fixed time slot etc. These types of disadvantages can be overcome by E-Learning. India is a first largest democratic country in the entire world
and main strength of the country is its people with democracy. In our Country, E-Learning is really a boon. It plays a significant role in producing scholarly think tanks. In this paper, focus has been done to study the features of E-Learning, Tools and Technologies used for E-Learning, their advantages and disadvantages and to elaborate on the upcoming technological trends in the field of E-Learning and many more.

1. INTRODUCTION

E-Learning provides the world-class learning experience to an individual in the circumstances where the traditional learning may not be possible due to personal, financial, time, distance constraints etc. The strength of any country is its people and India has the population of 134 crores which makes it the 2nd largest country in the World. In the present scenario, India is developing numbers of E-Learning tools and technologies which are being used by the Developed Countries.

To name the few, some of the emerging trends of E-Learning in India are:

- Open Educational Resources
- Distance education over Radio, TV, Web, Internet
- Cloud based E-Learning
- Big Data Technology used in E-Learning
- MOOCs etc. and much more

1.1 E-Learning [1, 2]

Electronic learning (or e-Learning or eLearning) is a general term used to refer to a form of learning in which the instructor and student are separated by space or time where the gap between the two is bridged through the use of online technologies. E-learning is used interchangeably in a wide variety of contexts. In companies it is referred to the strategies that use the company network to deliver training courses to employees. In distance education Universities like Open University in UK or Penn State World Campus in the USA, it is defined as a planned teaching/learning experience that uses a wide spectrum of technologies mainly Internet to reach learners at a distance. Lately in most Universities, E-Learning is used to define a specific mode to attend a course or programs of study where the students rarely, if ever, attend face-to-face or for on-campus access to educational facilities, because they study on-line.

1.2 Features of E-Learning [1, 2]

Some of the key features of e-Learning are given below and shown in figure 1.

- E-Learning is self-paced and gives students a chance to speed up or slow down as necessary
- E-Learning is self-directed, allowing students to choose content and tools appropriate to their differing interests, needs, and skill levels
- Faster Availability
- Better Retention
- Highly Scalable
- Accommodates multiple learning styles using a variety of delivery methods geared to different learners; more effective for certain learners
- Designed around the learner
- Geographical barriers are eliminated, opening up broader education options
- 24/7 availability and accessibility makes scheduling easy and allows a greater number of people to attend classes
- Any time Any Where Accessibility
- On-demand access means learning can happen precisely when needed
- Travel time and associated costs (parking, fuel, vehicle maintenance) are reduced or eliminated

![Figure 1: Features of E-Learning](image)

- Overall student costs are frequently less (tuition, residence, food, child care)
- Potentially lower costs for companies needing training, and for the providers
- Fosters greater student interaction and collaboration
- Fosters greater student/instructor contact
- Enhances computer and Internet skills
- Draws upon hundreds of years of established pedagogical principles
- Has the attention of every major university in the world, most with their own online degrees, certificates, and individual courses

### 2. OBJECTIVES OF THE STUDY

#### 2.1 General Objective
The general objective of this study is to establish the impact of E-Learning on an individual and the Nation.

#### 2.2 Specific Objectives
- To study the tools and technologies used for E-Learning.
- To study the advantages/disadvantages of E-Learning
- To study the companies offering E-Learning in India
- To study the future perspective of E-Learning
3. TOOLS AND TECHNOLOGIES USED FOR E-LEARNING [1, 2, 3]

Many tools and technologies are used in E-Learning including:
- Audio, Video, Computers, Tablets and Mobile Devices
- Blogging
- Web Cameras
- Collaborative Software
- Computer Aided Assessment
- Discussion Boards
- Prismart Magic
- Prismart Classic
- Electronic Mail
- Educational Management System
- Educational Animation
- Games
- Hypermedia
- Learning Management Systems
- Pod Casts
- MP3 Players with Multimedia Capabilities
- Multimedia CDs/DVDs
- Screen Casting
- Simulations
- Text Chat
- Virtual Classrooms
- Web-Based Teaching Materials
- Web Sites and Web 2.0 Communities
- YouTube
- LinkedIn
- Google Docs and Drive

Most E-Learning situations use combinations of the above techniques. An example of this is Moodle which uses: discussion board threading, wiki and real time textual chat. However, moodle is referred to as a Course Management System (CMS). This is because course material is often video, mp3, text documents, scanned images or links to other web sites. Along with the terms learning technology, instructional technology, and Educational Technology, the term is generally used to refer to the use of technology in learning in a much broader sense than the computer-based training or Computer Aided Instruction of the 1980s. It is also broader than the terms Online Learning or Online Education which generally refer to purely web-based learning. In cases where mobile technologies are used, the term M-learning has become more common. E-Learning, however, also has implications beyond just the technology and refers to the actual learning that takes place using these systems. E-Learning is naturally suited to distance learning and flexible
learning, but can also be used in conjunction with face-to-face teaching, in which case the term Blended learning is commonly used.

In higher education especially, the increasing tendency is to create a Virtual Learning Environment (VLE) (which is sometimes combined with a Management Information System (MIS) to create a Managed Learning Environment) in which all aspects of a course are handled through a consistent user interface standard throughout the institution. A growing number of physical universities, as well as newer online-only colleges, have begun to offer a select set of academic degree and certificate programs via the Internet at a wide range of levels and in a wide range of disciplines. While some programs require students to attend some campus classes or orientations, many are delivered completely online. In addition, several universities offer online student support services, such as online advising and registration, e-counselling, online textbook purchase, student governments and student newspapers. E-Learning can also refer to educational web sites such as those offering learning scenarios, worksheets and interactive exercises for children. The term is also used extensively in the business sector where it generally refers to cost-effective online training.

4. BENEFITS AND DRAWBACKS OF E-LEARNING [4, 5]

The vast movement towards E-Learning is clearly motivated by the many benefits it offers. However much E-Learning is praised and innovated, computers will never completely eliminate human instructors and other forms of educational delivery. What is important is to know exactly what E-Learning advantages exist and when these outweigh the limitations of the medium.

4.1 Features Unique to E-Learning

- Like no other training form, E-Learning promises to provide a single experience that accommodates the three distinct learning styles of auditory learners, visual learners, and kinesthetic learners. Other unique opportunities created by the advent and development of E-Learning are more efficient training of a globally dispersed audience; and reduced publishing and distribution costs as Web-based training becomes a standard.

- E-Learning also offers individualized instruction, which print media cannot provide, and instructor-led courses allow clumsily and at great cost. In conjunction with assessing needs, E-Learning can target specific needs. And by using learning style tests, E-Learning can locate and target individual learning preferences.

- Additionally, synchronous E-Learning is self-paced. Advanced learners are allowed to speed through or bypass instruction that is redundant while novices slow their own progress through content, eliminating frustration with themselves, their fellow learners, and the course.

- In these ways, E-Learning is inclusive of a maximum number of participants with a maximum range of learning styles, preferences, and needs.
4.2 Collaborative Learning
All collaborative learning theory contends that human interaction is a vital ingredient to learning. Consideration of this is particularly crucial when designing E-Learning, realizing the potential for the medium to isolate learners. With well-delivered synchronous distance education, and technology like message boards, chats, e-mail, and tele-conferencing, this potential drawback is reduced. However, E-Learning detractors still argue that the magical classroom bond between teacher and student, and among the students themselves, can not be replicated through communications technology.

4.3 Advantages of E-Learning to the Trainer or Organization
Some of the most outstanding advantages to the trainer or organization are:

- Reduced overall cost is the single most influential factor in adopting E-Learning. The elimination of costs associated with instructor's salaries, meeting room rentals, and student travel, lodging, and meals are directly quantifiable. The reduction of time spent away from the job by employees may be the most positive offshoot.
- Learning times reduced, an average of 40 to 60 percent, as found by Brandon Hall (Web-based Training Cookbook, 1997, p. 108).
- Increased retention and application to the job averages an increase of 25 percent over traditional methods, according to an independent study by J.D. Fletcher (Multimedia Review, Spring 1991, pp.33-42).
- Consistent delivery of content is possible with asynchronous, self-paced E-Learning.
- Expert knowledge is communicated, but more importantly captured, with good E-Learning and knowledge management systems.
- Proof of completion and certification, essential elements of training initiatives, can be automated.

4.4 Advantages to the Learner
Along with the increased retention, reduced learning time, and other aforementioned benefits to students, particular advantages of E-Learning include:

- On-demand availability enables students to complete training conveniently at off-hours or from home.
- Self-pacing for slow or quick learners reduces stress and increases satisfaction.
- Interactivity engages users, pushing them rather than pulling them through training.
- Confidence that refresher or quick reference materials are available reduces burden of responsibility of mastery.

4.5 Disadvantages to the Trainer or Organization
E-Learning is not, however, the be all and end all to every training need. It does have limitations, among them:

- Up-front investment required of an E-Learning solution is larger due to development costs. Budgets and cash flows will need to be negotiated.
Technology issues that play a factor include whether the existing technology infrastructure can accomplish the training goals, whether additional tech expenditures can be justified, and whether compatibility of all software and hardware can be achieved.

Inappropriate content for E-Learning may exist according to some experts, though are limited in number. Even the acquisition of skills that involve complex physical/motor or emotional components (for example, juggling or mediation) can be augmented with E-Learning.

Cultural acceptance is an issue in organizations where student demographics and psychographics may predispose them against using computers at all, let alone for E-Learning.

**4.6 Disadvantages to the Learner**
The ways in which E-Learning may not excel over other training include:

- Technology issues of the learners are most commonly technophobia and unavailability of required technologies.
- Portability of training has become a strength of E-Learning with the proliferation of network linking points, notebook computers, PDAs, and mobile phones, but still does not rival that of printed workbooks or reference material.
- Reduced social and cultural interaction can be a drawback. The impersonality, suppression of communication mechanisms such as body language, and elimination of peer-to-peer learning that are part of this potential disadvantage are lessening with advances in communications technologies.

**4.7 Do the Benefits Outweigh the Drawbacks?**
The pro's and con's of E-Learning vary depending on program goals, target audience and organizational infrastructure and culture. But it is unarguable that E-Learning is rapidly growing as form of training delivery and most are finding that the clear benefits to E-Learning will guarantee it a role in their overall learning strategy.

**5. FUTURE PERSPECTIVES OF E-LEARNING [6]**
The technological trends in the field of E-learning are mounting at a very high pace. Every day, some new technological trends come out to provide good E-Learning techniques to the teachers and the students/learners. Some of the future technological E-Learning trends are listed below and shown in figure 2:-

- PDAs and Smart Phones
- Gamification
- Intelligent Assistants
- Micro learning
- Adaptive E-Learning
- Interactive Video Based Learning
- Content Curation
6. E-LEARNING COMPANIES IN INDIA [7]

Below are listed some of the E-Learning Companies in India, which offer a range of products and services, including E-Learning courses, custom content, instructional design, LMS solutions and mobile applications development.

- EI Design (www.eidesign.net)
- Paradiso Solutions (www.paradisosolutions.com)
- Shezartech (www.shezartech.com)
- The Center for eLearning and Training (www.c-elt.com)
- G-Cube solutions (www.gc-solutions.net)
- NIIT (www.niit.com)
- Zeus Learning (www.zeuslearning.com)
- eNyota learning (www.enyotalearning.com)
- The Boston Group (www.thebostongroup.com)
- Tata Interactive Systems (www.tatainteractive.com)

7. CONCLUSION

E-Learning is an online system to communicate, either between students and teachers or managers and workers. It’s a way new way to teach, to explain, to expose and to keep in
E-Learning became necessarily and is used all over the world, because it proved to be effective and easy to be used. As time passes by, E-Learning becomes more and more advanced, and some day, it may replace schools and universities.

8. REFERENCES
[3]. https://www.toptools4learning.com/home/ [Viewed in November 2018]
[7]. https://www.learninglight.com/elearning-companies-india/ [Viewed in December 2018]

TO CITE THIS PAPER
Available online through- http://www.ijifr.com/searchjournal.aspx
This is certified that the paper entitled

E-Learning Trends in India

Authored by

Dr. Sunil Taneja

Associate Professor, Department of Computer Science,
Govt. College, Bilaspur, Yamuna Nagar, Haryana-India

has been accepted & published online in IJIFR continuous 66th edition


The mentioned paper is accepted after rigorous evaluation through double blind peer reviewed process.
This is certified that the paper entitled

E-Learning Trends in India

 Authored by

Amandeep Makkar

Assistant Professor, Department of Computer Science,
Arya Girls College, Ambala Cantt, Haryana-India

has been accepted & published online in IJIFR continuous 66th edition


The mentioned paper is accepted after rigorous evaluation through double blind peer reviewed process.

Dated: 26/02/2019

Authorised Signature With Seal
This is certified that the paper entitled

**E-Learning Trends in India**

*Authored by*

**Shelja**

Assistant Professor, Dept. of Computer Science & Applications,
Seth Jai Parkash Mukand Lal Institute of Engineering & Technology, Radaur, Haryana-India

has been accepted & published online in IJIFR continuous 66th edition


The mentioned paper is accepted after rigorous evaluation through double blind peer reviewed process.

**Authorised Signature With Seal**