



Technologies used in E - learning

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Abstract

In this paper we have tried to explain different technologies used in delivery of E-learning. E-learning gives an opportunity to the learner to complete his/her education/sessions easily and conveniently. It is a very flexible and self paced method of education. E-learning is a worldwide service and it motivates adults to learn. The urge to learn can be a result of desire for recognition, self esteem, natural curiosity, enhance the self confidence and the opportunity to self actualize which itself is a learning at its core. E- learning allows a needful based learning. The paper presented throws light on the technologies used for delivering E-learning. Learners are now a day's more acquainted with the different technologies developed. This paper tries to explain the technology used for delivering E-learning.

Introduction:

E learning is developing as a widely used concept of learning in India. Technology has been the major aspect to drive this concept of e- learning E-learning is use of technology to deliver solutions that enhance knowledge and performance. There has been a substantial amount of technological development in India since last 2 decades. E- learning is an inclusive term that describes educational technology that electronically or technologically supports learning and teaching. It is a technological medium that assists in the communication of knowledge and its development and exchange. It is an education approach that supports traditional subjects.

E- learning includes multimedia learning, technology enhances learning, computer based instruction, computer based training, computer assisted instruction or computer aided

instruction, internet based training, web based training, online education, virtual education, virtual education environments. Each of these alternative names emphasis a particular aspect, component or delivery method.

E-learning can occur through numerous types of media that deliver text, audio, images, animation, and streaming video, and includes technology applications and processes such as audio or video tape, satellite TV, CD-ROM, and computer-based learning. This paper explain the technologies used for delivery of e- learning.

Technology used:

Technology is the making, modification, usage, and knowledge of tools, machines, techniques, crafts, systems, and methods of organization, in order to solve a problem, improve a pre-existing solution to a problem, achieve a goal, handle an applied input/output relation or perform a specific function. Technology has been the major aspect to drive this concept of e- learning.

Technology has affected society and its surroundings in a number of ways. In many societies, technology has helped develop the education system. In India technology has helped improve and develop the education system. New advanced tools, techniques developed has enhanced the for learning systems.

Technology used for the methods of e-learning is as below. Most of the methods are a combination of two or more techniques together. The mode of

Audio:

Any learning done via listening to any material is an audio method of learning. Audio, an electrical or other representation of sound. Digital audio, representation of sound in a form processed and/or stored by computers or other digital electronics. Audio, audible content in media production and publishing.

The radio has been around for a long time and has been used in educational classrooms. Recent technologies have allowed classroom teachers to stream audio over the internet. There are also webcasts and podcasts available over the internet for students and teachers to download.

Video:

Video is an electronic medium for the recording, copying and broadcasting of moving visual images. This method is used by any visual learners or students who learn best by seeing the material rather than hearing or reading about it. Teachers can access video clips through the internet instead of relying on DVDs or VHS tapes. Websites like YouTube are used by many teachers. Teachers can use messaging programs such as Skype, Adobe Connect, or webcams, to interact with guest speakers and other experts. There is an increased retention and better results when video is used in a lesson. . Systematic video development method creation holds promise for creating video models that positively impact student learning.

Computers, tablets and mobile devices

Recent technology has resulted in development of Desktops, laptops, I – pads, Tablets, Macbooks which are been used extensively in market. These devises have been contributed at large extent in learning. Paper is now being replaced by E-learning. Computers and tablets allow students and teachers access to websites and other programs, such as Microsoft Word, PowerPoint, Excel, PDF files, and images. These tools help learners to express their ideas. Excel helps the mathematical working of the study. Powerpoint helps the presentation of the study done by the learner. Graphs, Pie charts, diagrams helps learner to analyse the data studied which helps to give a better result.

Blogging

A blog (a truncation of the expression web log) is a discussion or informational site published on the World Wide Web and consisting of discrete entries ("posts") typically displayed in reverse chronological order (the most recent post appears first). The blogs can be single user or multiple users. A majority is interactive, allowing visitors to leave comments and even message each other on the blogs, and it is this interactivity that distinguishes them from other static website. Bloggers do not only produce content to post on their blogs, but also build social relations with their readers and other bloggers.

Students and teachers can post their thoughts, ideas, and comments on a website. Blogging allows students and instructors to share their thoughts and comments on the thoughts of others which could create an interactive learning environment.

Webcams:

Creation of virtual classroom has been facilitated by these Webcams.

A webcam is a video camera that feeds or streams its image in real time to or through a computer or computer network. When "captured" by the computer, the video stream may be saved, viewed or sent on to other networks via systems such as the internet, and email as an attachment. When sent to a remote location, the video stream may be save, viewed or on sent there. Unlike an IP camera (which uses a direct connection using Ethernet or Wi-Fi), a webcam is generally connected by a USB cable, FireWire cable, or similar cable, or built into computer hardware, such as laptops.

Webcam helps in establishment of video links, permitting computers to act as videophones or videoconference stations, where the students can learn through this video conferencing.

Other popular uses include security surveillance, computer vision, video broadcasting, and for recording social videos. Webcams are known for their low manufacturing cost and flexibility, making them the lowest cost form of video telephony. They have also become a source of security and privacy issues, as some built-in webcams can be remotely activated via spyware.

This web classroom is easy to set up and reduces the travel expense and is a solution oriented program. Hence these technologies is now becoming more and more popular.

Whiteboards:

A whiteboard (also known by the terms markerboard, dry-erase board, dry-wipe board, pen-board, and the misnomer greaseboard) is a name for any glossy, usually white

surface for nonpermanent markings. Whiteboards are analogous to chalkboards, allowing rapid marking and erasing of markings on their surface.

This is a common feature of many virtual meeting, collaboration, and instant messaging applications. The term whiteboard is also used to refer to interactive whiteboards.

This method allow teachers and students to write on the touch screen, so learning becomes interactive and engaging.

Screencasting:

A screencast is a digital recording of computer screen output, also known as a video screen capture, often containing audio narration. The term screencast compares with the related term screenshot; whereas screenshot generates a single picture of a computer screen, a screencast is essentially a movie of the changes over time that a user sees on a computer screen, enhanced with audio narration. Screencasts can help demonstrate and teach. Educators may also use screencasts as another means of integrating technology into the curriculum. Students can record video and audio as they demonstrate the proper procedure to solve a problem on an interactive whiteboard.

This method allows users to share their screens directly from their browser and make the video available online so that the viewers can stream the video directly.

Advantages:

Over a period of years students have been convinced about the advantages of the technology used in E-learning; hence its popularity is increasing in India. Major advantages of the technology are as below:

1. Technology has made learning more easier, affordable and convenient
2. E-learning makes student more technology savvy.
3. Most convenient way to perceive degree in higher education.
4. It is the flexible, self-paced method of education to attain degree.
5. Saves time and can be done along with daily works.
6. Can log on and complete their studies any time the student wants.
7. Acquisition of technological skills through practice with tools and computers.

8. No age-based restrictions on difficulty level, i.e. students can go at their own pace

Disadvantages:

1. Technologies in shorter period of time become obsolete. Hence the learner has to upgrade the equipments.
2. Equipments used are expensive.
3. Some of the technologies are not very user friendly, hence the learner faces difficulty in its use.
4. User has to spend time in learning and using the technology.

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