DISTANCE LEARNING AND MANAGEMENT SYSTEMS

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Abstract

The technology has been advancing rapidly recently and it has become necessary to use technology in the education sector. Because of this it has become necessary to re-organize the education sector. The needs of both students and teachers are also changing. Teachers need to prepare their lecture notes in the most effective way and in the shortest time. For the students the requirement has been to remove the time and space concept and encourage them for self-study. The educational institutions on the other hand are seeking to provide the maximum level of education with minimum level of investment. LMS seems to be at the top of the latest technological advancements that will satisfy all the requirements of teachers and students. The following article aims at identifying learning management systems to organise effective e-learning.

Key words:

LMS, Moodle, e-learning, World Wide Web, Internet, Open learning, distance learning

This system of education can be traced back to the mid-nineteenth century, and was initially most popular in Europe, North America and Australia before spreading to other parts of the world. However, Williams, Parprock and Covington (1999, p. 2) indicate that it was not until 1972 before the term distance education was used to describe this type of education. In recent times however, it has become very common to find the terms ‘open learning’ and ‘distance learning’ used interchangeably to mean the educational approach in which the learners take responsibility for their own learning and learn at their own pace and their own time. In the following sections both open learning and distance learning are described and the distinction between them is clarified.

Open learning

Open learning refers to a system of education with reduced barriers to access and giving the learners more control over their own learning with respect to instruction, place of study, time and pace for completing specially structured or adapted courses. The courses are designed to help the learner learn with less help than usual using conventional teaching methods, and may involve any varieties of media such as print, audio-cassettes, television, computer and even practical kits (Rowntree, 1992, p. 16). This might also involve face-to-face tutorials and examination.

Distance learning

Distance learning refers to the learning process, in which the learner is separated from the teacher by geographical space and time for the whole or part of the program using technology to bridge the instructional gap (Willis, 2001, p. 1). This is usually achieved with the help of pre-recorded and suitably packaged learning materials in an asynchronous delivery mode. Through information and communication technologies today, synchronous distance learning has also been made possible where traditional classroom delivery can be covered by high-powered video cameras and transmitted to students at a distance in real time. This is the concept of the virtual classroom, a distance learning system that combines broadcast and interactive teleconferencing techniques operating in real time to deliver distance education (Schmidt, 2000, p. 82). In another alternative, the materials can be delivered to the distant student using the Internet/World Wide Web, either in real time or asynchronously.

Distance learning methodologies.

Today, distance education utilises appropriate technology to achieve desired learning outcomes offered through different schemes, sometimes in combination with conventional educational methodologies.

It may be offered as a stand-alone course, workshop, lecture, seminar, company in-house training, entire curricula, or different levels of degree/diploma programmes. Typical examples of these methodologies are described below.

Distributed learning

Distributed learning refers to the combination of distance learning and the conventional, campus-based learning methodologies (Carr-Chellman and Duchastel, 2000, p. 229).On campus students, who can access lecture materials in their dormitories, apartments, the libraries, a computer laboratory, or by using their personal computer anywhere in the world if they have to leave campus, can be considered as being engaged in distance learning activities. This convergence of distance learning and campus-based teaching has led to the concept of distributed learning, a learner-centred approach, in which a number of technologies are employed to provide opportunities for activities and interaction in both asynchronous and real-time modes while still registered as an on-campus students (Bates, 1997, p. 99).

Dedicated distance learning

The dedicated distance learning system is one in which the entire programme is offered with the student separated from the teacher in physical space (Bates, 1997, p. 1).

Technology and the development of distance learning systems

Right through its development from the days of correspondence study, distance learning has always incorporated available technology into the teaching-learning environment for improved learning outcomes. It is therefore considered that suitably developed technologies have been the driving forces behind today's successes in distance learning. The following are the media, techniques, and technologies that are used in varying combinations for the delivery of learning materials in different distance learning environments. These include, print, correspondence (through regular mail), audio cassettes, video cassettes, broadcast TV, compressed video, interactive TV, telephone, computer-based training (CBT) disks, CD-ROMs, laser disks, personal computer-mediated conference (CMC), audio-graphics, bulletin board system (BBS), electronic mail, satellite TV, short-wave radio, two-way audio teletraining, one-way video/two-way audio teletraining, digital TV, multitasking systems, and increasingly the Internet, World Wide Web, and on-line video.

The Internet is increasingly becoming a primary medium for the delivery of distance education in view of its ability to incorporate images, text, sound, and video, as stored, searchable information with possibilities for both synchronous (real time) and asynchronous communication.

Limitations

i) Web based learning system does not give the tutor the opportunity to employ his/her communicating skills in conveying information to the students.
ii) It is possible for the participant doing a test to open multiple windows, one containing the questions and the other the learning materials, to cheat in the test process.
iii) There is the requirement for the incorporation of multimedia tools such as video and audio to raise the level of collaboration.
iv) It is tiring to learn for a long time through the computer.
v) The inability of all the students to be online at the same time is an impediment to quick reference to a colleague for assistance during studies.
vi) There is no guarantee on the quality of the information on the Web to be used reliably as a resource base for academic purposes.
vii) Solution to test questions cannot be released immediately to students on completion of the test, as this would invalidate the examination process.

Web based distance learning management systems

Web based distance learning management systems refer to Web based software systems that are developed for managing Web based courses for distance learning purposes. They are mostly managed by organisations that do not directly provide educational programs, but are involved in the provision of the course management software for development and distribution of Web based learning materials,

management of tuition, assessment, registration, learner support and general administration. Three examples of Web based management systems are given below. Lecando is one example of Web-based distance learning management systems. It creates the e-learning infrastructure software, which is a platform for Web based flexible and interactive learning using the Internet as a foundation. It allows the learning program to be hosted either on its own server or on the institution's own server. Blackboard is another example of Web based distance education management system that offers enterprise software products and services that powers e-education infrastructure for schools, colleges, universities and other education providers around the world. Blackboard claims to have 5.4 million users at more than 1,400 institutions powered by the Blackboard e-education platform (Backboard, 2001a).

A learning management system, (LMS) is a software that is designed specifically to create, distribute, and manage the delivery of educational content. The LMS can be hosted as a stand-alone product on the company server, or it can be a cloud-based platform that is hosted by the software firm.

In most cases, organizations use an LMS system to facilitate access to learning materials that range from written materials and presentations to videos and interactive lessons.

The LMS should be able to:

- Provide learning experiences that are adapted to individual learners
- Make it easy for instructors to make notes and changes
- Give instructors and students the opportunity for online collaboration
- Integrate common tools such as calendars, word processors, and more
- Create a corporate culture-sensitive, branded presence for learners
- Include insights into user progress through built-in analytics
- Be able to scale globally as the organization grows

The modern learning management system often has built-in tools and resources that help administrators to develop course lessons, activities, and assessments. Administrators can assign new user credentials and schedule courses to be completed. They can also track learner progress with reporting features.

Reference

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