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USING INTERNET RESOURCES TO ENHANCE TEACHING OF INFORMATION SYSTEMS COURSES

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ABSTRACT

This demonstration focuses on using Internet Resources to enhance the teaching of Information Systems Courses. Use of specific resources which address the course content and delivery issues are discussed and will be demonstrated.

INTRODUCTION

Information Technology (IT) has made important contributions to the technological innovations that have enhanced the quality of education. Academics in the information systems area have a dual role to play. They have to learn and incorporate these technologies in their courses in order to teach them effectively. Secondly, since most of the new technology is IT oriented, the IS department is expected to be the leader in introducing such courses.

The Internet is a network of networks that links millions of computers all over the world. A variety of resources are available on the internet including Telnet, File Transfer Protocol, Gopher, IRC (chat system), Email, Listservs, and the World Wide Web (WWW) which can be used for teaching purposes. This demonstration discusses the development of a framework so that instructors can enhance the teaching effectiveness using advanced technology available in the form of the internet. It is currently intended to design the framework around the introductory course in Management Information Systems. The framework will include course outlines, suggestions for designing on-line course materials, logistical issues (conveyance and collection of class materials from students), and performance assessment.

USING INTERNET RESOURCES TO ENHANCE STUDENT LEARNING

Student learning theories predicate that learning takes place a variety of ways and in diverse forums. Two major issues in teaching are the *pedagogical* issues and *delivery* issues.

Pedagogical Issues: There are many pedagogical approaches ranging from the plain old lecture format to advanced simulation games and experiential learning techniques like role-playing cases. The effectiveness of each of these techniques has been extensively studied in the past. New emerging technologies have aided in the usage of advanced computer-based instruction techniques. In addition, the Internet offer a vast panoply of resources that would assist the teacher in offering to the student information that was hitherto unavailable.

In terms of changes to the pedagogical approach, using this new technology students will now be able to search the internet databases for information pertaining to the class and aid them in their class projects. Resources like IRC (Internet Relay Chat) can be used to set up discussion channels specifically for each individual course. Office hours can then be held in virtual mode. A time can be chosen where the instructor will be online and any students who would like to discuss any material would be online and a discussion can ensue.

Delivery Issues: The second use of advanced technology is in the delivery of the course content. Content delivery techniques have varied from the traditional classroom format to a distance learning (correspondence course) format. Each of these delivery techniques have their merits and demerits. In general, however, there is broad agreement on the value of close teacher-student interaction afforded by a face-to-face environment like the traditional classroom. It is intuitively obvious that increasing the access of teaching resources tends to have a positive impact on students' learning capacity. Even in distance learning environments, usage of teleconferencing facilities try to approximate the traditional classroom. Nevertheless a teacher cannot be physically present 24 hours a day in order to assist the students. Again, the Internet can be utilized as a delivery medium for enhancing the asynchronous portion of the student-teacher interaction.

Instructors and students can communicate with each other during non-class hours using Email. Listservs and Usenet groups can be created devoted to each class resulting in an on-going peer discussion forum. Depending on the privacy and confidentiality needs one can use listservs for a more restricted and secure forum and a usenet group for a more open forum. The usenet group can also be moderated if the need is felt for a more directed and focussed discussion group. The instructor can make course materials, sound/video clips of important lectures, and lecture notes on the Internet. Students can access these materials using WWW browsers. Students will have access to homework and assignment material from the net at their convenience. Students can also take exams on-line by filling out forms on the WWW.

Usage of this technology might require resources like a larger memory, a larger hard disk space, other accessories like sound card etc. Enhanced computing needs are a pre-requisite only for the more esoteric information sharing like sound and video clips. Most of the interaction however can be implemented with fairly modest resources. Moreover with the rapidly falling prices of computer resources and accessories, even future needs like animation and virtual reality (using languages like VRML) will shortly become a reality.

The demonstration will show how one can develop on-line syllabi and other course information. It will also show how homeworks can be made available online. The homeworks can be done online and then mailed back to the instructor. Graded assignments with appropriate comments can be mailed back by the instructor to the students. With proper security precautions, exams can be taken on-line. The format of these exams and their usage will be demonstrated. The usage of asynchronous discussion groups will be demonstrated. Usage of interactive discussion forums like IRC will be demonstrated.