

TEACHING MANAGEMENT INFORMATION SYSTEMS WITH BLENDED LEARNING METHODS

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ABSTRACT

The aim of this case-study is to show the creation and development of a virtual environment for an information systems subject. In order to prepare this work, we worried about some topics related with differences between traditional classroom teaching and web-based learning (WBL). Our paper is divided in two sections and finalize with some comments about our experience in blended learning methods for teaching management information systems. In the first part of this case-study, we try to explain some important constraints of these features. The second part shows our experience in building a virtual environment for our “*Introduction to management information systems*” subject in the *Aula Virtual*, the web-based environment of the *Universidad de Cantabria* in Spain.

KEYWORDS

Management Information Systems teaching, Web-based learning (WBL), WebCT, Blended learning methods

1. INTRODUCTION

A growing number of teaching professionals use modern multimedia tools to innovate traditional lectures, making them more graphical and didactic. Widespread access to personal computers and Internet has helped to create new work areas, such as the European Higher Education Area or environments that improve students and teacher mobility. WWW can be used to reinforce on-site education with continuous training, which is, essentially distance learning. Within this framework, *Universidad de Cantabria* began to create *Aula Virtual* in 1999, where students and teachers can meet in a virtual environment. Solutions are provided in many different situations, ranging from long distance education, folders for different teaching material, evaluation tools, calendars, image and video database, communication tools (e-mail, forum) and self-evaluation tools (tests, exams, homework). In our work we can see the net as two different frameworks, as an information distribution system or as an educational one. We focused in organizing the information and learning, avoiding designing a web-based distribution system that revolves around the site more than in the contents. We tried to design a multimedia tool that could provide students with a sound theoretical background and practical training through different homework and exercises. By the end of the course, students should be able to understand and interpret knowledge in different situations. The efficiency of an on-line environment depends on the organization of contents and materials and the amount of proposed activities. E-learning is a strategy that encompasses and utilizes today's technologies to satisfy learning necessities. Its use technology to move the acquisition of skills, knowledge and behaviors close to the users, more quickly and with greater currency. In this respect, e-learning is extremely powerful because it allows individuals to learn “anywhere, any time”; minimizes workplace downtime, and allows content to be rapidly up-dated.

Today we have access to a raft of learning methods, learning media and learning strategies. Methods include tutorial, heuristic (discovery) learning and role-play. Media encompasses computer-based training (CBT) including CD-ROM based learning and web-based learning (WBL), video, simulators and emulators.

E-Learning began as computer-based learning (CBL), meaning standalone CDROM training courses (and before them, videodisc courses!) playing on end-user computers, standalone training stations, and sometimes

across client/server LANs. Well-designed, high-quality CBL can have great instructional and performance-boosting value. But it is very costly, slow and labor-intensive to develop, quickly obsolete, and suffers from a house-of-cards software limitation—all of which prevents its value from gaining long-term or large-scale momentum. Packaged content is financially sensible to sell and cost-effective to buy, and packaged IT training courseware can be quite effective. The next era in e-learning came with the WWW. Thanks to this environment, access to information is cheaper and easier. The lesson we have learnt during this work is related to necessity of using blended methods. An education based exclusively in web methods, will lose the relation teacher- student and finally the teacher's role in teaching.

2. TEACHING AND LEARNING WITH EXCELLENCE

As higher education institutions and systems seek to widen access, the need to maintain quality standards is clear. However, what is potentially even more important is the opportunity to improve educational outcomes overall and to assess learning outcomes in innovative ways, through the widespread use of instructional technology - course management systems in particular.

In the traditional classroom, there is limited data and metrics that can be used to measure quality or intervene with students having difficulties. Often no objective data is available until a mid-term grade. In comparison, some course management systems collect lots of data about how students interact with the system during the learning process (e.g. which pages of content, how much time, how often a self-assessment was taken, etc.). This provides two opportunities for higher education to improve quality and student outcomes. First, instructors have the ability to track each of their students' learning activities so they are able to view if a student is falling behind or not keeping up with their reading material. This enables them to proactively intervene prior to students' achieving failing grades or dropping out. Utilizing this data at the instructor-student level should be promoted in training initiatives and rewarded in practice.

Second, and possibly more importantly, the collection of this learning activity data also gives institutions the opportunity to assess quality across the curriculum by aggregating the data for analyses by assessment and institutional researchers.

Once there is a critical mass of learning activity taking place online, institutions will be able to analyze outcomes as well as activity patterns to better determine what leads to student success and use those insights to improve the overall quality of the educational offerings. Assessment frameworks will take time and research to develop the appropriate and proven methodologies for using this data. As more and more students experience at least a portion of their learning through academic enterprise systems over time, this type of assessment should be planned for as part of the long-term quality assurance framework for higher education institutions and accreditation reviews.

Particular attention should be paid to mixed mode courses in which a portion of the classroom time is replaced with virtual learning activities. In addition to expanding access, there are a number of research studies that indicate blended mode learning can lead to higher outcomes than either traditional or online learning alone. The ability of blended learning to better address varied learning styles is one proposed reason for these types of outcomes.

3. CONCLUSION

The general benefits of Web-based learning when combined with traditional learning include all those shared by other types of technology-based training. These benefits are that the training is usually self-paced, highly interactive, and results in increased retention rates.

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