

# Chapter VI

## Higher Education's Use of Course Management Software

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### **ABSTRACT**

*This chapter explains what course management systems (CMS) are, lists the features of the most popular CMS, describes the advantages and disadvantages of CMS, reviews the literature on the effectiveness of learning with CMS communication tools, and discusses the future of CMS. It discusses how CMS have become an important means of computer mediated communication in higher education. CMS are not only used for distance education courses, but for traditional courses as well. Increasingly, many teaching faculty are integrating CMS to enhance communication in the traditional class making it a hybrid course. CMS provide instructors the ability to enable various modes of communication to simulate the same experience as a real classroom. The author hopes that this chapter will provide information about what CMS can do now, and what they will perceivably do in the future.*

### **INTRODUCTION**

Course management systems (CMS) are software packages that facilitate learning in a Web-based environment by providing a set of educational and administrative tools. CMS are sometimes called virtual learning environments (VLE) and networked learning environments (NLE) (Crawford & Thomas-Maddox, 2000; Dehn, 1999; Hiltz, 1997; Meerts, 2003; Weasenforth, Meloni,

& Biesenbach-Lucas, 2005). CMS have become an important means of computer mediated communication and an integral component of teaching and learning in higher education. This chapter is an overview of course management systems. It describes what CMS are, lists the features of the most popular CMS, describes the advantages and disadvantages of CMS, reviews research on the effectiveness of learning with CMS communication tools, and discusses the future of CMS.

## **COURSE MANAGEMENT SYSTEMS**

“In 2000-01, 90 percent of public two-year and 89 percent of public four-year institutions offered distance education courses” (Waits & Lewis, 2003, p. iii). Many of these distance education courses are supported fully or partially online by CMS. These CMS are the chief method for providing online courses at universities and colleges (Morgan, 2003). However, CMS are not only used for distance education courses, but for traditional courses as well. Increasingly, many teaching faculty are integrating CMS into the curriculum of traditional courses to enhance communication (Frey, 2005). With CMS, students can stay connected to the course even after they walk out of the classroom. CMS provide instructors the ability to enable various modes of communication to simulate the same experience as a physical classroom.

In order to replicate the classroom environment CMS provide several tools for students and administrators to engage in learning and teaching. Instructors can upload course documents, readings, and assignments to CMS. This means that instructors can make electronic versions of the syllabus, lecture notes, presentation slides, course readings, assignments, and other materials available via the World Wide Web. Instructors can post external links in CMS. This feature is useful for linking to Web resources, such as the library electronic resources. Tests and quizzes can be administered online with CMS. A drop box is provided for students to submit electronic versions of their assignments. Instructors can keep an electronic gradebook in CMS that enables the student to review their grades anytime. Additionally, test and quiz results can be automatically sent to the gradebook, which saves instructors time. Instructors can track usage in CMS to see when the students are logging in and what they are accessing. Other miscellaneous features such as a glossary for unfamiliar terms and a survey tool for polling your students are usually included

in CMS (Cheong, 2003; Malikowski, Thompson, & Theis, 2007; Naik, 2003).

All of the previously mentioned features are very important for hybrid and fully online courses, but “the core of the online course is not content but interaction” (Simmons, Jones, & Silver, 2004, p. 52). Therefore, the communication features of CMS may be the most significant to accomplishing the course objectives. CMS allow for asynchronous and synchronous communication, such as e-mail, announcements, virtual chat, and discussions boards. Instructors can use the e-mail feature to send messages to all students or to specific individuals in a class. The students can e-mail their classmates or instructor. The announcements feature allows the instructor to advertise information pertinent to all students in the class. The announcements are usually archived and are all viewable on one Web page. The discussion boards allow students, as well as the instructor, to post messages for others to read and respond to (Naik, 2003). All of these features create a virtual environment that mimics the face-to-face interaction experienced in a physical classroom. The actual features of CMS will vary.

In 2006, Blackboard Inc. completed a merger in which they acquired WebCT Inc for \$180 million. Both companies are leaders in course management systems. Combined, the companies have 3,700 academic subscribers. Blackboard, Inc. is committed to supporting and improving current WebCT systems. Eventually, Blackboard, Inc. will create a new system by incorporating the best usability characteristics and functions from both systems (Blackboard, Inc., 2006; Carnevale, 2005; Partnerships, 2006; Pittinsky, 2004).

In response to the outrageous fees that companies are charging for CMS, many educators have begun developing their own programs, such as Moodle and Sakai. Moodle is an acronym that stands for modular object oriented developmental learning environment and it is one of many open source CMS. Martin Dougiamas, an educator and

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