Chapter 20 The Hybrid Course Facilitating Learning through Social Interaction Technologies

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ABSTRACT

This chapter surveys the benefits and challenges of hybrid courses, which blend face-to-face instruction with online learning, and opportunities provided by the introduction of Web-based social interaction technologies. It discusses the pedagogical implications of various Web 2.0 tools: that is, asynchronous discussion boards, blogs, wikis, podcasts, RSS, e-portfolios, folksonomies, educational gaming, data mashups, and simulations. The authors argue that as hybrid courses continue to evolve to meet the needs of students, instructors, and institutions of higher learning, the integration of Web 2.0 applications in a hybrid model requires thoughtful course design, clear educational objectives, and carefully planned activities.

INTRODUCTION

The traditional face-to-face classroom, in which an instructor lectures, demonstrates, and leads discussion, has been the primary method for acquiring an education in colleges and universities. However, advances in social interaction technologies have resulted in greater variation in educational experiences for online learning. A study by the National Center for Education Statistics surveying over 4,000 two and four year degree granting institutions found

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that 88% plan to increase or start offering courses using asynchronous computer based instruction as the primary mode of delivery (National Center for Education Statistics, 2003). Asynchronous instruction means that students and faculty are not required to be present at the same time (either electronically or in person) to participate in the class. Technology is clearly transforming the educational landscape.

On the continuum from fully face-to-face to fully online courses, *hybrid* or *blended* courses are centered somewhere in the middle merging the most desirable aspects of both approaches (So & Brush, 2008). In a hybrid course, students spend more

time learning online through planned activities, tutorials, assignments, and discussion. To make time for online activities, the face-to-face class meeting time is reduced significantly. Unlike the traditional lecture-based classroom (also known as face-to-face teaching), students have more flexibility regarding the time and place where learning occurs (Aycock, Garnham, & Kaleta, 2002). Some contend that this promotes students' active engagement in their learning, typically called student-centered or constructivist learning. Bransford, Brown, and Cocking (1999) argue that active, as opposed to passive, learners are better able to understand complex information, are more likely to transfer concepts learned in one setting to another, and are more likely to retain information

BACKGROUND

As recently as the mid 1990's, most students did not own a personal computer, used single function technologies (e.g., phone, camera, video player), and had irregular access to the Internet. Today's students typically own computers, have multifunction mobile technologies, and use the Internet on a daily basis (McGee & Diaz, 2007).

The technological environment continues to change for faculty as well. During the 1990's the "technology" in the classroom originally consisted of chalkboards, overhead transparency projectors and VCRs. Classroom Internet access was not common. Additionally, faculty may or may not have had access to email from home, and if they did, dial-up service made home use of the Internet slow and sometimes unreliable. Today, more classrooms are equipped with various types of technology including Internet access, integrated projectors for computers and DVDs, audio and video devices for distance learning, and document cameras, to name a few. Typically, faculty members have home access to campus computing resources using improved broadband connections.

Learning management systems, sometimes called *course management systems*, are becoming more commonplace and are enabling communications, learning materials, assignments, and grading to occur online.

Although face-to-face lecturing is still a mainstay of many professors' teaching repertoire, emerging technology is shifting the methods used by faculty (Maloney, 2007). Educators are no longer solely lecturers, but are increasingly becoming designers and facilitators of learning environments. Along with changes in technology, advancements in learning theory also play a role in this paradigm shift. Educators are now advised to incorporate more constructivist pedagogy in which active learning is accomplished (Rovai, 2007). Instead of focusing exclusively on the transfer of knowledge from teacher to student, educators are encouraged to find ways to motivate and involve students in the discovery and even the creation of knowledge. The expected outcomes of effective teaching are also changing. As educators move from a teaching-centered to a learning-centered model, student recall of information is not necessarily the preferred outcome. Student understanding, integration, and application become salient desirable outcomes. Indeed, changes in technology and learning theory are having an impact on how contemporary educators approach instruction. Many educators are beginning to teach in ways that differ from how they were taught when they were students (Hartman, Dziuban, & Brophy-Ellison, 2007).

According to Burbules (2007), education needs to be understood in the current context of technological ubiquity. Although definitions of Web 2.0 vary, the term acknowledges development of web applications beyond read-only websites that now allow Internet users to increasingly become content providers as well as receivers. The earlier developments on the World Wide Web served to disperse information in a top-down manner. Today, the web has evolved to be more participatory with collective users building information from the bot-

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