Chapter 14
Improving Hybrid and Online Course Delivery
Emerging Technologies

Nory B. Jones
University of Maine Business School, USA

Christian Graham
University of Maine Business School, USA

ABSTRACT
As educational budgets continue to shrink, colleges and universities have turned to online course delivery as a means of increasing enrollments. In addition, with the proliferation of Internet-based course management and other software that facilitate the learning experience, many traditional courses are adding an online component, creating hybrid courses in different formats. In this chapter, the authors explore different strategies and technology solutions to help instructors develop rich, dynamic courses, whether they are completely online or hybrid courses that use online tools and technologies to augment the traditional class. This chapter covers the advantages and disadvantages of hybrid courses, technologies and practices available for them, emerging technologies such as Second Life™, social networks, dense wavelength division multiplexing, telepresence, satellite networks, and the use of texting in the classroom.

INTRODUCTION
Online education is often defined as involving the Internet and web-based technologies to deliver distance education. It can be delivered asynchronously, where the students and instructor do not communicate in real time, using web-based technologies such as asynchronous discussion boards, electronic repositories, and e-mail. It can also be synchronous, where the students and instructor communicate in real time using web-based technologies such as chat rooms or video conferencing over the Internet (Martinez, 2004).

While online education has become routine with 65% of graduate programs across the country using the Internet to deliver classes (Norton and Hathaway, 2008), many colleges and universities are still struggling to discover how to provide a quality educational experience. Menchala and Bekele (2008) found that a variety of technologies and learning styles as well as instructor and administrative support are required to achieve an
engaged, productive, and collaborative classroom experience.

This chapter offers a variety of strategies and technological solutions that educational institutions, academic administrators, and faculty could employ to improve hybrid course delivery in distance education with emerging technologies. Readers could consider this chapter as a resource guide for delivering hybrid education. To this end, the chapter specifically addresses; what is distance education today and hybrid course delivery, advantages and disadvantages of hybrid courses versus “pure” online and traditional courses, emerging software and information systems that support teaching and learning online, and strategies for overcoming existing challenges of the classroom today and tomorrow.

BACKGROUND

Distance Education Today

Distance education is often defined as instructional delivery where the student is not in the same physical space as the instructor and other students. Most distance education today is delivered via Internet technologies. Distance courses can be completely synchronous where the instructor and students meet together in virtual environments such as live chat, video, or audio streaming at the same time. They can also be completely asynchronous where the students and instructors use web-based technologies such as discussion forums, blogs, wikis or social networking tools to communicate at different times and on their own schedules. Courses can use a blend of synchronous and asynchronous communications and technologies to enhance the total experience, which we refer to as hybrid classes. In addition, hybrid classes can mix a traditional face-to-face class with different online technologies. For example, many university courses use information systems like Blackboard/WebCT for course management. It is also not uncommon for a live class to be broadcast via streaming Internet video and also archived for later Internet viewing.

The value of distance education continues to grow in importance. In 2007, it was estimated that at least 2.3 million students were enrolled in online classes in the United States (Smathers, 2007). According to the GAO (2007), enrollments in higher education distance classes have almost quadrupled since 1995. The Sloan Consortium reported that over 3.9 million students nationally took at least one online course in the fall 2007 semester. This represented a 12% increase over 2006 statistics (Heck, 2009). Distance courses and programs in higher education represent a real avenue for growth, expanding opportunities for traditional and non-traditional students. This represents an opportunity as well as a reality for most institutions of higher education. With the cost of tuition rising and economic downturns across the country, providing an alternative means of educational delivery benefits everyone. Less time and cost in traveling, more potential course availability, and greater access and convenience all contribute to the value of distance classes (Jackson & Helms, 2008).

TECHNOLOGIES AND PRACTICES FOR ONLINE EDUCATION

Hybrid Course Delivery in a Mixed Educational Environment

Traditional classes are those that meet in a physical space in real time with instructors and students present. Pure online classes, which can be synchronous (in real time) or asynchronous (the meetings are not at the same time) are held virtually, usually via the Internet. Finally, hybrid courses use a variety of techniques to combine traditional and online courses. For example, a traditional course may have online asynchronous discussions. Many variations can exist for hybrid courses.
Related Content

The Effects of Using Dynabook to Prepare Special Education Teachers to Teach Proportional Reasoning
www.igi-global.com/article/the-effects-of-using-dynabook-to-prepare-special-education-teachers-to-teach-proportional-reasoning/123161?camid=4v1a

www.igi-global.com/article/agile-development-of-various-computational-power-adaptive-web-based-mobile-learning-software-using-mobile-cloud-computing/151607?camid=4v1a

A Theory of the Online Teaching Experience
www.igi-global.com/chapter/theory-online-teaching-experience/18670?camid=4v1a

Online Learning Activities in Second Year Environmental Geography
www.igi-global.com/chapter/online-learning-activities-second-year/30241?camid=4v1a