Chapter 6.21
Using Emerging Technologies for Effective Pedagogy in Management Education

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INTRODUCTION

The past decade has brought tremendous changes to higher education. Technology components that supplement teaching and learning are integrated into programs and courses in most universities. Tools, such as course management systems, portals, PDAs, wireless technology, and Web services are used to create virtual communities that provide an interactive platform for learning. Previous research (Alavi, 1994; Lake, 1998; Yip, 2004) has shown that technology-based instruction results in positive learning outcomes. Colleges and universities are trying to understand this phenomenon of digital education and restructure themselves to take advantage of emerging technologies so that students can be prepared to be leaders and managers, who not only realize the benefits of using collaborative tools in virtual space, but also have competencies in using these tools effectively. In addition, because emerging technologies make it possible to extend physical boundaries of a university, new markets could bring additional revenues and expand access to programs nationally as well as globally.

Management education with its use of problem-based learning and case study approach has been a leading candidate for integrating technology tools for scholarship and research. Business schools have been under constant pressure to provide students the skills and experience needed to effectively use emerging technologies (Alavi, Wheeler & Valacich, 1995; Hildebrand, 1995) that are used by businesses to gain competitive advantage (Leidner & Jarvenpaa, 1993). Webster and Hackley (1997) have identified previous studies of business schools adopting computer mediated distance learning for business cases and simulations. A strong community of practice (CoP) is critical for building collaboration between faculty in universities that may be separated by space but connected using networks that can be leveraged to extend programs and provide faculty partnerships and foster student scholarship. CoP

can foster the spirit of discussion and collaboration. Brown and Duguid (2000) have defined CoPs as groups of people who share a common vision or passion and work closely together within the context of a particular practice or field of study (Garrison, Hawes & Kanuka, 2003). CoP has also been defined as a group of people who share a common concern, set of problems, or interest in a topic, whose members come together to fulfill both personal and group goals. The main goals of a CoP are to generate knowledge, contribute to identification of effective practices, and definition of underlying principles. CoPs also help create common vocabularies and conceptual frameworks (NLII Virtual Communities, 2003). There are several tools that try to address virtual collaboration, but very few tools are used effectively. The purpose of this article is to look at three tools: portals, course management systems, and videoconferencing to explore how CoP can thrive by use of these tools.

The Internet has quickly evolved from merely a distribution channel to an interactive environment for collaborative learning. In what can be considered a partial response to Frost and Fukami's (1997) challenge to the profession to think in deep ways about management education and teaching, faculty have realized the tremendous potential of actively engaging students in the online environment. Students have also appreciated the benefits and convenience of e-learning. The technology component is now integrated with almost every functional area of business education. As an example of a classroom, students in a supply chain course can discuss implications of global partnerships between suppliers and manufacturers, review best practices in supply chain management, and learn from case studies of international corporations. Lectures and discussions using streaming video and tools such as whiteboards, chat forums, and interactive audio can be used to explore cultural diversity and international business culture. To make this happen, costs associated with providing resources should be realized and budgeted. Business schools committed to research, student learning, and effective teaching have developed strategic plans that underscore significant investments in IT infrastructure, software development (such as portal technology, course management tools, and Web services).

The technology infrastructure and services that are deployed in business schools should provide a strong base for teaching, research, and community outreach and foster cross-disciplinary collaboration between units. The interaction may not necessarily be only among students, but can extend to professional exchange of ideas between students and faculty at one institution with a group of professionals at any institution. An example of a discipline-based CoP is the information systems professional Web site and listserv: ISWORLD. The Web site (http://www.isworld.org) provides members an opportunity to stay current on the happenings in information systems teaching, research, and service. An active listserv generates daily informational posts that include conference announcements, book/journal publications, position announcements, sharing of ideas on resources, offers of collaborative opportunities, further inquiry into research and systems implementation questions, and challenges to commonly believed hypotheses. The daily interaction, postings, responses, and response to responses provide constant and relevant information to list subscribers and also provide them an opportunity to stay active and participate in discussions.

The above example shows the use of a listserv via e-mail. In the past few years, more interactive environments have emerged to support communities of practice. Characteristics of three representative technologies (portals, course management systems, and videoconferencing) that can be considered to have potential to improve management education are given next.