Preface

As the fourth issue in the first volume of this journal shows, the use of computer-based technology in business education is an arena undergoing vigorous investigation on many fronts. This includes advances in both course content and delivery. Papers in this special issue of *Information Technology and Management* are concerned with the development and impacts of computer-based means for delivering business education.

The articles are organized into two categories. The first is comprised of three papers studying impacts of computer-based approaches to communicating within business courses. The second category's four papers describe the development of various course-ware systems and results of using those systems.

Leading off in the first category is "Adoption of Asynchronous Learning Tools by Traditional Full-Time Students: A Pilot Study" by Rick Wilson and Mark Weiser. This paper studies how distance learning tools can be used in a non-traditional way: as supplements for traditional students taking on-campus courses. It reports results of a pilot study in which students in a business course were given the opportunity to use a video-streamed version of the class content. These results can guide the efforts of instructors who are considering adoption of a similar approach, and they highlight several topics for future research.

In "The Effects of Communication Modality on Outcomes of Collaborative Tasks," Radhika Santhanam examines the relationship between communication modalities (face-to-face and email) and collaborative learning outcomes (objective and perceived). The results of this exploratory study offer insights to instructors for gauging impacts of computer-mediated communication on outcomes of student group projects. They also suggest future research directions.

In their paper on "Collaborative Technology in the Classroom: A Review of the GSS Research and a Research Framework" Craig Tyran and Morgan Shepard review progress that has been made in understanding the application of group support systems to classroom settings. They assess prior studies from the standpoint of issues that an instructor should consider in adopting such technology. Against this background, a research framework is advanced identifying various factors to address in future studies of GSS usage in the classroom.

The second category of papers begins with "The Effect of a Web-Based Tutorial on Problem Formulation Ability." In this article, Ravindra Krovi and Joanne Sulek describe the development and features of an interactive Web-based tutorial on algebraic formulation of linear and integer programming models. Design issues as well as tutorial features may offer guidance for other tutorial developers. The authors also report on impacts

of their tutorial courseware when applied as a complement to conventional classroom instruction.

Chetan Sankar and P.K. Raju combine technology and case study pedagogy in developing the CD-ROM courseware described in "Use of Multi-Media Courseware to Teach Real-World Decision Making Skills." They detail their development process, an instruction plan for using this multimedia courseware, and results of measuring the effectiveness of its usage. The findings are of interest to potential adopters of such courseware, as well as potential developers.

In "Web-TRECS: Teaching Electronic Commerce," Craig Parker and Paula Swatman present an overview of their Web-based e-commerce business simulation system. Called Web-TRECS, this system was designed to use in teaching a variety of electronic commerce concepts via business simulations. The article describes Web-TRECS design and features, how the system can be used, and anecdotal findings resulting from its use. As with prior articles, this paper holds interest for both developers and users of such courseware.

"Experimental Simulations: Using Web-Enhanced Role Plays to Teach Applied Business Management" by Chris Galea describes the use of Web-based technology to enhance students' preparation and research for a role-playing simulation. The Web-based courseware includes an in-depth case study with external links, plus material for appreciating the simulation structure, contacting stakeholders, posting views, and so forth. Aside from the technology, overall pedagogy and outcomes of using the courseware are presented. The paper is relevant to instructors interested in developing their own experiential simulations and researchers investigating means for incorporating realistic experiences into the classroom.

In closing, assistance from the following persons who served as referees for submissions to the special issue is gratefully acknowledge: Anil Aggarwal, Maryann Alavi, France Belanger, John Benamati, Ray Blankenship, Susan Brown, Jeff Butterfield, John Campbell, Donald Caputo, Chuleeporn Changchit, Edward Chen, Joseph Codde, Galen Crow, Alan Dennis, Dorothy Dologite, Donna Duffner, Kevin Elder, Xiang Fang, George Fowler, James Freeman, Charles Gardner, Michael Hignite, Joan Hoopes, M. Gordon Hunter, Marleen Huysman, Len Jessup, Linda Johnson, Julie Kendall, Heinz Klein, Susan Kruck, Dorothy Leidner, Hao Lou, Wenhong Luo, Ross Malaga, Brian Mennecke, Jeffrey Michelman, Russ Morton, Krish Muralidhar, Bill Nance, Jim Otto, David Paradice, Drew Parker, Daniel Peak, Mark Pendergast, Roberta Roth, Dolly Samson, Chetan Sankar, Radhika Santhanam, Mark Sena, Stephen Sheetz, Cheri Speier, Jennifer Thomas, Jack Thornton, Craig Van Slyke, Bill Wagner, Kenneth Walsh, Merrill Warkentin, Ed Watson, Jane Webster, Brad Wheeler, Gayle Yaverbaum, Youngjin Yoo, and Youlong Zhuang. Their evaluations, insights, and suggestions have contributed greatly to the quality of this special issue.

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