“Anytime, anyplace, any subject” is an emerging theme for distance learning in higher education throughout the world. Portable wireless devices and other emerging interactive media are giving traditional classroom and distance education professors a growing array of tools to provide instruction wherever it is needed or desired. Educators now have an expanding repertoire of interactive media enabling both traditional pedagogical options and “just-in-time” situational learning in a wide variety of environments. Currently about 16 million Americans attend colleges and universities of all kinds. With the growth in distance education, this figure could rise significantly. People who could not attend a class now have the opportunity. Many predict that by this time next year handheld devices and virtual classrooms will be ubiquitous, enabling students to log on to the Internet for assignments and to participate in chat room discussions with students across the globe.

While the new technology is complex and expensive, it is a growing necessity for higher education. Christopher Dede of Harvard’s Graduate School of Education says, “Within a couple of decades refusal to use interactive media in teaching will be considered professional malpractice.”

Although online education is still in the early stages, it is now starting to show its impact as it extends through adult and lifelong learning. It is growing fastest in the area of higher education. Universities are the most wired community on the Web with more than 90% of college students accessing the Internet. In 1999, Market Data Retrieval reported the results of a survey that 72% of two-year and four-year institutions offered online courses, up 48% from a year earlier. By next year (2002), 2.2 million students are expected to enroll in distance learning courses, up from 710,000 in 1998, according to Merrill Lynch researchers. They expect the online higher education market to grow from $1.2 billion in 1999 to $7 billion in 2003.

Not all students, faculty and university administrators agree that the Web is the answer to the problems of the world of education. In fact, some say that the Internet may create some new challenges and problems. There is a growing backlash among professors and administrators who question the merit of computers in the classroom or in place of the classroom. They believe students are distracted by technology and understaffed institutions are unable to maintain the costly infrastructure and the computer clutter associated with high-tech classrooms. Many top-tier universities are taking a cautious approach as professors battle with administrators over intellectual property rights concerning who has ownership of courses and materials. Instructors see technology changing their ranks to that of a “knowledge disseminator” who spreads information for a profit. These challenges are described in Section II of this book. Detractors of distance education point to the high-profile venture at Western Governor’s University that has not been a great success.

Software and e-learning programs have made a world of difference for those involved in distance education. For a distance student, all one has to do is look online to find what must be done. Students are more in control of their time and are less occupied with logistics. Parking for classes is no longer a problem. This has made life easier for them, but it has forced instructors to provide more structure for their classes. Since web-based classes are often required to be online weeks in advance, a professor can no longer prepare for classes at the last moment. Increased quality control is seen through the use of course directors or administrators.
While a growing number of students and instructors have enthusiastically embraced distance learning, some point out that they may be losing human contact with their counterparts. There are concerns about finding a balance between information technology on the one hand and traditional, humanistic learning on the other. Martz and Sheppard’s chapter (Section II) presents a study and discussion on some of the human aspects of distance education.

The purpose of this book is to increase understanding of the major issues, challenges and solutions related to distance education. With such large numbers of individuals learning at a distance from traditional central locations, it is critical that we understand the impacts of these arrangements, the major issues and challenges, and how to best manage and develop distance education programs. This knowledge will enable organizations to implement and improve programs. It will also further our understanding of the impact of technology, particularly when it is used to replace face-to-face communications among both individuals and groups.

ORGANIZATION OF THE BOOK

The book is organized into three sections. The first part identifies the role and evolution of distance education into higher education. This part reports on the development of educational experiences as they have changed in the distance environment. Besides the availability of new technology, much of the motivation for distance programs stems from the perceived need to accommodate nontraditional students when university budgets are squeezed to the point that localized convenient educational experiences are out of the question. There is a clear demand for new course delivery, content, and curriculum. This section shows how organizations have changed, grown, and progressed to meet this demand.

Section II brings a multidimensional discussion of the faculty, student, and program challenges of distance education programs. The evolution of computers and online capacity into the world of higher education has evoked in many a sense of foreboding and fear, while others have welcomed this new approach as a valuable cost-effective tool for delivering educational needs in today’s world. Course delivery methods have been modified due to the physical distance between the instructor and the student. The dimensions described in this section point out the significant impact on course delivery, student-to-professor interactions, student-to-student interactions, and assessment vehicles.

Section III gets down to the business of implementing programs and examining the designs and experiences of those who have had their organizations commit resources to distance programs. These are the early adapters or pioneers of this technology who have already made significant progress in the use of computers and the World Wide Web for teaching courses completely online or for adding course sections taught at a main or distant location. Today, these are examples of only a very small portion of the educational work force in the world. Opportunities are awaiting those who are willing to step up and move into the arena of the ever-evolving educational challenges of education at a distance. This part tells the story of experiences and includes technical, pedagogical, and organizational issues. A brief description of each chapter follows:

Chapter 1 describes and identifies distance education as a serious alternative to the standard classroom environment, presenting enormous opportunities for both the organizations and players involved with this version of education. Matthews examines the
technology and the types of students involved. She comments also on the advantages and disadvantages for instructors, virtual universities, state governing bodies, and consortia members.

Chapter 2 begins by identifying forces leading to change in organizations involved in the online world. These include rising global competitors, powerful consumers of education, and rapid changes in technology. Also included are the formation of alliances, outsourcing, and the re-engineering of systems and work practices of distance education providers. A model is presented that outlines “glocal”, a networked education paradigm that separates out global and local resource development. The result is that university academics are finding themselves responsible for the learning of hundreds of students with whom they may never find themselves face-to-face.

Chapter 3 reviews the telecommuting literature and proposes a model that provides a basis for consideration of the appropriateness of the attributes associated with various distance education tasks and the suitability of those tasks. This model could be useful for managing issues presently encountered in distance education programs.

Chapter 4 presents the impact that Internet courses have on the traditional university and also examines whether these courses represent a new and significant improvement over traditional pedagogy for educating students or just a lessening of the rigor in academic programs. The chapter shows the results of a departmental survey on the reactions to distance programs by accounting chairpersons and college of business deans.

Chapter 5 addresses the motivation of faculty members to teach at a distance. The concepts and challenges of distance programs involve adapting traditional classroom approaches, attitudes and barriers to the technologies associated with distance education methods. Dooley and Magill present an extensive survey of faculty opinions about teaching at a distance, as well as several case studies describing incentives and training made available for distance education.

Chapter 6 describes the potential of distance learning to be as successful in instruction as conventional classroom learning. The approach is to take advantage of the known principles of perception and learning gleaned from cognitive behavioral, educational and perceptual psychological research. The principles are presented and applied in conventional learning packages that include web page development, course-in-a-box software, chat rooms, MUD/MOO environments, bulletin boards, and real-time online lectures.

Chapter 7 explores the concern for social needs in distance education. Several themes that integrate learning and technology are identified and analyzed. In addition, the results of an exploratory study are presented on the “need for affiliation” among students who work in groups in distance courses versus those who work in groups for campus classes.

Chapter 8 reviews the experiences of offering an online Business Computer Applications course that provides instruction in basic computer concepts and terminology as well as instruction in using software programs. Various strategies that were successful in the course are reported for those who are interested in offering online courses. Topics of importance include the initial class meeting, providing diverse instructional material, the value of student evaluations, and the determination of student assessment procedures.

Chapter 9 examines the use of institutional resources and structures for embracing distance education. The areas scrutinized include registration, advising, library, and technical support. Institutions must have clear, well-planned strategies in place in order to maximize a student’s experience and overall satisfaction. These strategies prevent attrition and maximize retention for institutions considering distance education.
Chapter 10 explores the issues surrounding quality assurance with online courses. As demand for distance education grows, the Internet delivery method raises questions about the quality assurance of these offerings. Ryan addresses the question that administrators and participants must ask themselves: “Should there be a trade-off of class quality with the convenience of the delivery method?” If not, then how do we keep course quality from being compromised using this new medium?

Chapter 11 describes success factors used by institutions, course developers, professors and students that lead to high-quality educational experiences. These have been found through practice by institutions, course developers, instructors, and students. Guidelines are presented on the three stages of the distance education development cycle: resources, practices, and results. In addition, two distance education programs are described as case illustrations that exemplify the successful application of success factors.

Chapter 12 looks at factors that promote development and implementation of successful online distance learning environments from the perspectives of educators and learners. Schrum and Benson provide an overview of current tensions between the requirements of the faculty, the needs of the students, and the forces driving the development of online programs. This work is based on the authors’ current research and past experiences in the design and development of online distance learning environments.

Chapter 13 describes the unique distance education consortium called CCC Online developed by the Community Colleges of Colorado System (CC of C). CC of C is comprised of fourteen Colorado community colleges and delivers courses, certificates and degrees to more than 250,000 students per year. The CCC Online consortium, managed by the Colorado Electronic Community College (CECC), provides centralized management of faculty and curriculum, and the consortium member colleges provide most of the student services to their students enrolled in the program.

Chapter 14 presents the results of a study comparing classroom performance and student attitudes of distance education students to on-campus (“live”) students enrolled in classes leading to a Master of Business Administration (MBA) degree. The faculty from the School of Business and Management at the University of San Francisco developed the program. Contracts to deliver these courses were negotiated with two large Chinese companies. The off-site students of this distance education attended class sessions in Hong Kong and in three other locations within the Peoples Republic of China, using a Tutored-Video Instruction (TVI) methodology.

Chapter 15 provides an overview of the different models that have emerged, and addresses the key issues that need to be resolved for integrating Internet-based learning in traditional universities. The breadth of strategic, administrative, academic and technological concerns encountered through the evolution of an Internet-based education system, from its inception to implementation, are discussed and illustrated by the e-learning initiative of Middle East Technical University in Turkey.

Chapter 16 discusses the needs and opportunities for teaching comprehensive business applications, Enterprise Systems, in the form of academic distance education courses. Specific factors of the educational market in Enterprise Systems, such as high demand, limited resources and the increased importance of Application Hosting Centers will be described. An appropriate learning model will be selected, which stresses the role of the lecturer as a moderator. The subject, Process Engineering at Queensland University of Technology, is used as an example to discuss different forms of distance and collaborative education in Enterprise Systems. The summary includes recommendations and sketches possible future directions.