Book Review
Communication Technologies

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Book Review of Communication Technologies
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Communications Technologies is the result of a collaboration between two of OSRA's finest educators who have extensive experience in communication technologies and end-user computing. Dr. Gehris is Professor of Business Education & Office Information Systems and Coordinator of Academic Advisement and Accreditation at Bloomsburg University and Dr. Szul is Professor & Assistant Chair of the Department of Technology Support and Training at Indiana University of Pennsylvania. Written as a book that "presents a thorough introduction to the fast-paced world of end-user communication technology and telecommunications" (p. xiii), the most important contribution of *Communication Technologies* is the breadth of knowledge it contains in one textbook about this critical area. All end-users need to know the essentials of email, voice processing, teleconferencing, wireless communication, and networking.

Communications Technologies is intended for use as a college textbook for end-user communication technologies and telecommunications application courses often found in the office information systems and computer information systems disciplines. In addition, *Communication Technologies* is designed to address the specific needs of course OEIS-6: Communications Technologies in the OEIS curriculum. The Organizational & End-user Information Systems (OEIS) Curriculum Model was developed by a team of dedicated information systems academics and practitioners "to challenge students to understand their information systems role from an organizational viewpoint, the perspectives and needs of the people they support, and technologies used or accessed at the desktop" (p. xv).

I am, however, considering adopting *Communication Technologies* for a graduate level elective education course, Integrating Electronic Communication into Instruction. The intended audience for this course is pre-service or in-service teachers in several content areas at the middle and high school levels. Students will have novice to practitioner knowledge and experience with the various communication technologies. I am looking for a textbook, therefore, that can be used for my students' learning in the course, as well as a reference book. Thus far, I have found *Communication Technologies* to be an excellent introduction and resource on the various communication technology applications that are available in industry and education.

"Communication technology," as conceptualized within this textbook, is "the application and use of technology—computers, software, other electronic devices, and accompanying media and procedures—to make communication more effective than through traditional means of communication that do not utilize technology" (p. 4). We live during an era that has been characterized by the flow of information and knowledge. We continue to find new ways to access, communicate, and share what we know. It is these new methods of communication that are addressed in *Communication Technologies*.

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The overall organization of the book is logical and useful. The sequence and scope of each section flows, beginning with the history of communication technologies, various communication technologies, the Internet, (today's killer communication app), and finally, networking fundamentals.

Part One, Communication Technology: Introduction, History, and Future, includes two chapters. The first chapter introduces the reader to the concepts of communication technology and telecommunications by first discussing the communications model and characteristics of effective communication and then discussing the role of technology in communications today. Chapter Two addresses both the history and the future of communication technology. Because much of the terminology and concepts of communication technology is rooted in telegraphy, inventions and developments related to telegraphy are addressed, including the telegraph, the telephone, the wireless telegraph, the microwave radio, computer communications, satellites, and telecommunications networks. Regarding the future of communication technology, the authors identify the key words for the future as multimedia and mobile telecommunications.

Part Two, Communication Technology Applications, contains five chapters focusing on major communication applications including, electronic mail, teleconferencing, voice processing and facsimile, and wireless communications. Each chapter addresses the definition of the communication technology application, its benefits and drawbacks, and how it is used. For example, in Chapter 4, Teleconferencing, audio, video, and computer conferencing are addressed in detail, particularly in planning, executing, and evaluating the teleconference. Two useful tools provided for planning a teleconferencing include a teleconference planning form and a checklist for conducting a teleconference.

Part Three, The Internet and Intranets, contains five chapters providing an introduction to the Internet and intranets, and a discussion of available Internet-based communication tools, including discussion groups, newsgroups, browsers, telnet, gopher, Archie, file transfer protocol (FTP), and hypertext markup language (HTML). Chapter Eight, Introduction to the Internet and Intranets, provides the history and uses of the Internet and intranet technology. A thorough discussion of Internet terminology and concepts are provided, including Internet addressing, Internet connections, and Internet protocols. Chapter Ten, World Wide Web, discusses how to find information on the Internet using browsers and effective search strategies. For example, one useful strategy is to understand the search engine's limitations. Understanding what is in the database will help in determining effective search criteria. Chapter Eleven, Creating Web Pages, provides a brief and concise introduction to hypertext markup language (HTML) and basic HTML codes. All the codes needed to create a simple web page are addressed.

Part Four, Networking Fundamentals, has three chapters addressing an introduction to networks, telecommunication models, and network connectivity and telephony. The basic terminology and concepts for data communications, telecommunications, and telephony are discussed, including how data are transmitted, types of networks and transmission media, how transmission control protocol/Internet protocol (TCP/IP) operates, how transport protocols are used, and the history, basics, and future of Internet communications. The definitions, descriptions, and diagrams in this section are clear, concise, and effective.

Each chapter includes a brief description of the chapter, a list of topics to be addressed, questions, projects and problems, vocabulary, and references, including print and online resources. A glossary is also included at the end of the book that defines terms from the Vocabulary section of each chapter. Students will find the glossary helpful as they become conversant in communication technology jargon. The additional instructional material, including the What We Will Learn section at the beginning of each chapter and the Questions, Projects and Problems, Vocabulary, and References sections at the end of each chapter, adds to the textbook's value.

While it is virtually impossible for a textbook to be 100% current, the authors have done an excellent job of including many of the communication technologies currently available, as well as looking to the future to forecast what the next killer communication app is going to be.

In addition to the instructional sections in the book, an instructor's CD-Rom is provided with lesson plans, solutions, and PowerPoint slides for each chapter. A companion web site is also available at http://www.prenhall.com/gehris. The companion web site includes objectives, multiple choice, true or false, and essay questions, and a glossary for each chapter (see Figure 1). In addition to the evaluation section of the companion website, a resource section linking to web-based content could be added. The companion web site could also address the newest communication technologies. Since I am teaching Integrating Electronic Communication into Instruction as an online course during the fall semester, I would find web-based resources invaluable.

Also included in the companion website is a browser tune-up (see Figure 2). With the browser tune-up students can check to see if their browsers support several plug-in applications, including QuickTime, Flash, Shockwave, RealPlayer, Acrobat, i-Chat, Livemath, Netscape, Chime, and Techexplorer. If the browser in use does not support these plug-ins, the tune-up application will guide the user through the process of installing the applications. The tune-up application is an excellent tool to help students determine whether they have the software they need to complete class assignments.

In summary, *Communication Technologies* is an excellent survey textbook and resource covering many of the communication technology categories currently available. In addition to the content, the supporting material within each chapter, on the CD-Rom, and online significantly impacted my decision to adopt this text for use in Integrating Electronic Communications into Instruction. This textbook covers many of the communication technologies that can be used by an end-user, in this case, by faculty and students, and this book does it in a way that novices can understand and value. *Communication Technologies* is a great choice for my class. Moreover, OSRA is fortunate to finally have a text that meets the instructional and content needs of a key course in its model curriculum.

Figure 1: The companion website

Figure 2: The browser tune-up