PREFACE

Students graduating today face a tough job market—making it important that they develop the expertise and critical thinking skills that give them a competitive edge. *Information Technology for Management*, 8th edition is designed to give students an edge when they face the challenges and opportunities that business careers present. This textbook covers the content that students need *to learn* and *to be able to use* for successful and sustainable management careers in any of the functional areas. For example, students learn the business value and process of actually doing mobile commerce, managing customer and supplier relationships, using business intelligence and cloud computing applications, and many other IT-centric business functions.

Each chapter reinforces important business principles: *What companies can do depends on what their information systems can do*—and what information systems can do depends on what managers understand about the latest IT, such as mobile devices, wireless networks, social media, logistic systems, interoperability, collaboration, and Internet apps. As information technologies mature and become more widespread, they add to the global IT infrastructure that support next-generation (next-gen) ITbased business strategies.

Our goal is to develop a textbook that covers meaningful foundations and trends in information systems and technology *in-depth* and *in-context*; and to provide students with a portfolio of IT skills to give them a competitive edge when competing for jobs and job advancements. We believe that providing content *in-context—i.e.*, *within a business context*—is essential to the understanding and value of traditional and emerging information systems and technologies. Our emphasis is on both operational and strategic performance of all types of organizations—for-profit, nonprofit, healthcare, and government agencies.

Organization of the Book

The book is divided into five parts, composed of 14 chapters. On the book's Web site (*wiley.com/college/turban*) are five Technology Guides (Tech Guides), each chapter's *Link Library* with clickable links, and 23 supplemental cases. The Tech Guides cover:

- 1. Hardware
- 2. Software
- 3. Data and Databases

- 4. Telecommunications
- 5. A Technical View of System Analysis and Design

New and Enhanced Features of this Text

Our plan was to develop a text that prepares students in all business majors to succeed in their careers. In developing the 8th edition of *Information Technology for Management*, we have achieved our goal with the following changes in content, organization, and pedagogical features.

- We streamlined and smoothed the flow throughout the text, reducing the size of most chapters, as well as the number of chapters and topics covered.
- Greater depth, simpler presentation. We cover the most critical operational and strategic IT issues in greater depth, and have eliminated less critical topics. The 8th edition consists of fourteen chapters—all of which are in the printed book, five online Tech Guides, and 23 online cases.
- New emphasis on *how to do things* and explanation at both the operational and strategic levels so students are exposed to both perspectives. We discuss IT incontext so students develop a portfolio of IT skills.
- New in-depth coverage of cutting edge topics like IT governance, connectivity blurring public and private lives, sustainability, enterprise social media, and viral and social marketing.
- New chapter on social networks and the Web 2.0 environment.
- We replaced chapter summaries with chapter previews. Each chapter starts with a *Quick Look* to introduce students to the business issues, challenges, and IT solutions discussed in the chapter. In effect, instead of a chapter summary, we provide a chapter preview of the most valuable and interesting topics, which are explained in the chapter.
- We replaced introductory minicases with forwardthinking For Class Discussion and Debate, which consist of two sections. The first section, named Scenarios for Brainstorming and Discussion, engage students in critical thinking exercises. The second section, Debate, presents two conflicting scenarios to be debated by teams of students. These scenarios get students immersed and engaged in discussions and debates of

IT issues and their ethical, managerial and/or competitive implications.

- After each chapter is a *Business Case* of a for-profit enterprise and a **NEW** *Public Sector* or *Nonprofit Case.* We provide all sectors because of the sharp growth of nonprofits and government agencies.
- NEW Analysis Using Spreadsheets or Analysis Using Simulation activities in every chapter further engage students in research, critical thinking, analysis, problem solving, and decision making.

Hallmark Features of this Text

- *Failures and Lessons Learned.* We acknowledge the fact that many systems fail. Many chapters include discussions or examples of failures, the contributing factors, and the lessons learned from them.
- *Solid Theoretical Backing.* Throughout the book, we present the theoretical foundation necessary for understanding IT.
- *Up-to-Date Information.* Every topic in the book has been researched to find the most up-to-date information and features.
- *Economic Justification.* IT is mature enough to stand the difficult test of economic justification. It is our position that IT investments must be scrutinized like any other investment despite the difficulties of measuring technology benefits.
- *Ethics and Social Responsibility.* We take an expanded look at global warming, ecology, and managers' responsibility to individuals, society, and the environment. For example, we did extensive research to understand and then clearly explain how IT and users can reduce carbon emissions and global warming that harm the planet through green business practices and data center designs that conserve natural resources.

Pedagogical Features

We developed a number of pedagogical features to aid student learning and tie together the themes of the book.

- *Link Libraries.* Each chapter starts with a list of URLs that will be referenced in the chapter. Link Libraries with live links to the referenced URLs may be found on the book companion sites at *www.wiley.com/ college/turban*.
- *Quick Look.* The chapter outline provides a quick indication of the major topics covered in the chapter.
- *Learning Objectives*. Learning objectives listed at the beginning of each chapter help students focus their efforts and alert them to the important concepts that will be discussed.

- *For Class Discussion and Debate*. Each chapter opens with scenarios for class discussion and team debate.
- *"IT at Work" Boxes.* The IT at Work boxes spotlight some real-world innovations and new technologies that companies are using to solve organizational dilemmas or create new business opportunities.
- *Highlighted Icons.* Icons appear throughout the text to relate the topics covered within each chapter to some major themes of the book. The icons alert students to the related functional areas, to IT failures, and to global and ethical issues.



Ethics-related topic



Global enterprises and issues



Lessons to be learned from IT failures



Accounting example



Finance example



Government example



Human resources management example



Marketing example



Production/operations management example



Service-company example (for example, health services, educational services, and other non-manufacturing examples)



Material at the book's Web site: *wiley/com/ college.turban*

- **Review Questions.** Each section of each chapter ends with detailed questions for review.
- *Glossary of Key Terms*. The key terms and concepts are typeset in boldface blue when first introduced in a chapter, and are defined at the end of the book.
- *Chapter Highlights.* Important concepts covered in the chapter are listed at the end of the chapter and are linked by number to the learning objectives introduced at the beginning of each chapter, to reinforce the important ideas discussed.
- End-of-Chapter Questions and Exercises. Different types of questions measure student comprehension and students' ability to apply knowledge. Questions for Review ask students to summarize the concepts introduced. Discussion Questions are intended to promote class discussion and develop critical thinking skills.
- *Exercises and Projects.* Exercises are challenging assignments that require the students to apply what they have learned in each chapter to a situation. This includes many hands-on exercises as described earlier, including the use of search engines and the Web.
- *Group Assignments.* Comprehensive group assignments, including Internet research, oral presentations to the class, and debates, are available in each chapter.
- *Internet Exercises.* Hands-on exercises send the students to interesting Web sites to explore those sites; find resources; investigate an application; compare, analyze, and summarize information; or learn about the state of the art of a topic.
- Business Case of a for-profit enterprise.
- Public Sector or Nonprofit Case.
- Analysis Using Spreadsheets or Analysis Using Simulation. These exercises further engage students in research, critical thinking, analysis, problem solving, and decision making.

Supplementary Materials

An extensive package of instructional materials is available to support this 8th edition.

- *Instructor's Manual.* The Instructor's Manual presents objectives from the text with additional information to make them more appropriate and useful for the instructor. The manual also includes practical applications of concepts, case study elaboration, answers to end-of-chapter questions, questions for review, questions for discussion, and Internet exercises.
- *Test Bank.* The test bank contains over 1,000 questions and problems (about 75 per chapter) consisting of multiple-choice, short answer, fill-ins, and critical thinking/essay questions.

• The *Wiley Resource Kit* provides a simple and hasslefree way to integrate the instructor and student tools into any Learning Management System (LMS).

With the Wiley Resource Kit, you'll have:

- FREE access to resources that complement your course & textbook
- Immediate availability in one convenient location
- No cartridges, plug-ins, or license fees!
- Compatibility with any Learning Management System (Blackboard, WebCT, Angel, and more!)
- *PowerPoint Presentation*. A series of slides designed around the content of the text incorporates key points from the text and illustrations where appropriate.
- *Textbook Web Site.* (*wiley.com/college/turban*). The book's Web site extends the content and themes of the text to provide extensive support for instructors and students. Organized by chapter, it includes the Link Libraries, additional cases, PowerPoint slides and more.
- *NEW Weekly Updates* (www.wileyinformationsystems updates.com). Wiley's IS Weekly Updates keep instructors and students on top of the latest in new stories about IS and business issues. Each week we deliver several new articles, video clips, news stories and more, complete with discussion questions to spark debate in the classroom.

Acknowledgments

Janice C. Sipior (Villanova University) and Gregory R. Wood (Canisius College) are the contributing authors on the 8th edition. Janice provided her expertise on IT strategic planning. Greg developed and wrote *Chapter 7*, *Mobile Computing and Commerce* and *Chapter 8*, *Web 2.0 and Social Media* to provide the latest strategies and trends in those key cross-functional IT/marketing issues.

Faculty feedback was essential to the development of the book. Many individuals participated in focus groups and/or acted as reviewers. Several others created portions of chapters or cases, especially international cases, some of which are in the text and others on the Web site.

Our sincere thanks to the following reviewers who provided valuable feedback, insights, and suggestions that improved the quality of this text.

David Teneyuca, University of Texas San Antonio Jerry Fjermestad, New Jersey Institute of Technology David Bloomquist, Georgia State University Kemal Altinkemer, Purdue University Richard Segall, Arkansas State University Eileen Griffin, Canisius College Michael Mick, Purdue University Calumet Beena George, University of St. Thomas Houston

x Preface

Dan Humpert, University of Cincinnati Greg Dawson, Arizona State University Albert Lederer, University of Kentucky Maureen Cass, Bellevue University Mike Totaro, University of Southwestern Louisiana Fiona Fui-Hoon Nah, University of Nebraska at Lincoln Samuel Elko, Seton Hall University Carol Jeffries-Horner, Our Lady of the Lake University Melody N. White, University of North Texas Susan Chinburg, Rogers State University Barin Nag, Towson University Jeff Miner, Rensselaer Polytechnic Institute Werner Schenk, University of Rochester

Shimon Nof, Purdue University Sung-Kwan Kim, University of Arkansas at Little Rock

We thank the dedicated staff of John Wiley & Sons: Chris Ruel and Mike Berlin; and the production management services of Suzanne Ingrao. A special thanks to Beth Lang Golub, who helped us to achieve this "designed for learning" 8th edition that we proudly present to you.

> Linda Volonino Efraim Turban Janice C. Sipior Gregory R. Wood