

Book Review

End-User Information Systems: Implementing Individual and Work Group Technologies

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Book Review of End-User Information Systems: Implementing Individual and Work Group Technologies, 2nd edition.

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Regan and O'Connor have been credited with helping to define our field as it has evolved from office automation, to office systems, to end-user computing, and now to the more encompassing term, organizational systems. This second edition text is actually a third edition, evolving as its publishers merged from *Automating the Office: Office Systems and End-user Computing* (SRA, 1986) to *End-user Information Systems: Perspectives for Managers and Information Systems Professionals* to the current text. Throughout the editions, Regan and O'Connor have not only kept abreast of the technological changes that were occurring but have added the very important managerial issues and theoretical frameworks on which to implement and understand those changes in the context of addressing workers' and their organizations' needs.

"Cutting edge," "21st century," "dynamic," "conceptual," and "practical" are adjectives I use to describe Regan and O'Connor's most recent edition. The authors sprinkle current information systems terminology, management issues, and conceptual frameworks (such as planned organizational change) throughout and explain all concepts clearly. They make their points with solid research and illustrate them with sharp and timely charts, diagrams, and figures. The book itself is easy to read; while the color scheme is black and white, the images have excellent contrast and the font is crisp and easy on the eyes.

The textbook is divided into five parts, with two to four chapters in each part, for a total of sixteen text chapters plus one online chapter.

The five parts include: (a) Organizational and Technical Foundations; (b) Business Solutions; (c) Implementation and Support; (d) The Impact of Information Technology on Individuals, Groups, and Organizations; and (e) Project Management. New chapters in this second edition include topics about work group computing, knowledge management, help desk management, organizational change, and three heavily revised project management chapters. Although the chapters are logically sequenced, each chapter could stand-alone for a customized course.

Each chapter has objectives, discussion questions, key terms, application exercises, suggested readings and a Web site (www.prenhall.com/regan). About half of the chapters include a case study, and you'll find additional cases on the Web site. Chapter 17, Trends and Directions: Transforming Enterprises for the 21st Century, is an online chapter, constantly being updated. Interspersed throughout all chapters are stories entitled "Spotlight on Solutions" about real people in real organizations.

One of my favorite chapters is Chapter 5, Knowledge Management (KM). KM is a complex concept, and has its roots in several areas. These areas include best practice transfer, information and records management, organizational learning

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and innovation, electronic performance support systems, database management, and e-business. Understanding KM's evolution helps the reader understand not only what KM is, but how today's KM, a combination of strategic technologies and management practices, can address real business needs. This chapter examines corporate strategy, implementation, and technologies useful in the business environment. It discusses how to formulate a knowledge management strategy as well as the pitfalls to avoid.

Additionally, this edition expands the emphasis on training the ultimate users of systems to include not only how to plan for initial roll-out training, but also an entire chapter on Help Desk management. In the Help Desk chapter, the authors first describe the technologies related to ongoing performance support, including Computer-Telephony Integration (CTI), Interactive Voice Response (IVR), and Web-enabled support, and then discuss the management challenges and opportunities related to actually running a help desk operation.

An area that most information systems texts often overlook or give little consideration to is that of human factors. Again, the authors have summarized years of research and best practices to describe advances in software design, hardware design, and workplace design. With a framework of a systems approach (the convergence of technology, process, and human needs), they define and analyze issues with a view to what is happening today and what will happen in the future. Showing the human side, the chapter includes real stories of how ergonomics and human factors design have improved the work and personal lives of those with physical disabilities.

A very interesting and timely chapter covers work group computing. After an overview of increasingly sophisticated asynchronous and synchronous technologies (ranging from email to software agents and including group support systems), the book offers an overall vision for the future of groupware. And while perhaps not a glamorous topic, the issue of accounting for new technologies—computing usable, relevant return on investment figures—constitutes an entire

chapter. As any corporate planner knows, cost justification is often required when planning for new systems.

Another chapter addresses the critical issue of organizational change. Here, the authors discuss the relationship between technology and change, the implementer's role as a change agent, the characteristics of effective change leaders, the important considerations in implementing technological changes, and the forces pushing for and resisting technology. Change occurs continually in organizations, and when technology is introduced, subsequent changes occur in work processes, people's jobs, and organizational structure. Planning for change before it happens can be the key to a successful implementation.

Throughout the text, Regan and O'Connor emphasize that using technology effectively requires more than keeping pace with the newest and best solutions. Jobs change, too. You'll find a comprehensive chapter on job (re)design and business processes that addresses the four basic phases of business process redesign methodology, differences between task analysis and job analysis, various approaches to business process and job redesign, and the core job dimensions to consider when designing jobs.

Part V, End-User Information Systems Project Management, is the only place I've seen systems analysis and design adapted and applied to the individual and workgroup level. Continuing the systems approach to project management begun in earlier editions, the authors have not only listed steps to follow when planning for technology change at the individual and workgroup levels, but described related sub-steps addressing the individual needs of the people to be affected, what they do, and the organizations they support. The summary of this novel approach, detailed in Figure 14-7 on pages 476-478, has been described by Marilyn Parker in her book, *Strategic Transformation and Information Technology*, (Prentice Hall, 1995) as an excellent approach to producing business value and leveraging enterprise information.

This book, in each of its three editions, has always been a cornerstone of the OEIS Model Curriculum. In its current form, the book can be used in its entirety for OEIS-1, Organizational

and End-user Information Systems Concepts, the introductory class in the Model Curriculum. However, because of the heft of the book, instructors using a project approach might want to organize their OEIS-3 OEIS Planning and Design and OEIS-4 Implementation and Evaluation courses around the project management model in Part 5, and visit accompanying chapters on an as-needed basis. Sample syllabi for designing and delivering such courses are included on the accompanying Web site.

A comprehensive instructor's manual and test bank are available online and in hardcopy. Both of the authors use the textbook in their own teaching, so you'll find some innovative exercises, assignments, and teaching suggestions that are tried and true. For example, one innovative

assignment is for a "Technology Watch." Adapted from a real-life approach one organization uses to stay abreast of new developments in hardware and software by the major vendors, the technology watch project fosters students' reading the popular press as well as learning to work in a group. Student work groups are assigned a category of technology and a vendor that they "watch" for developments throughout the semester. At the end of the semester, the group makes an oral presentation to the class on what's new.

If you don't have a course on this topic, everything you need to develop one is available. Or, if you just need a comprehensive reference book that summarizes developments in individual and work group computing, this book is for you!

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