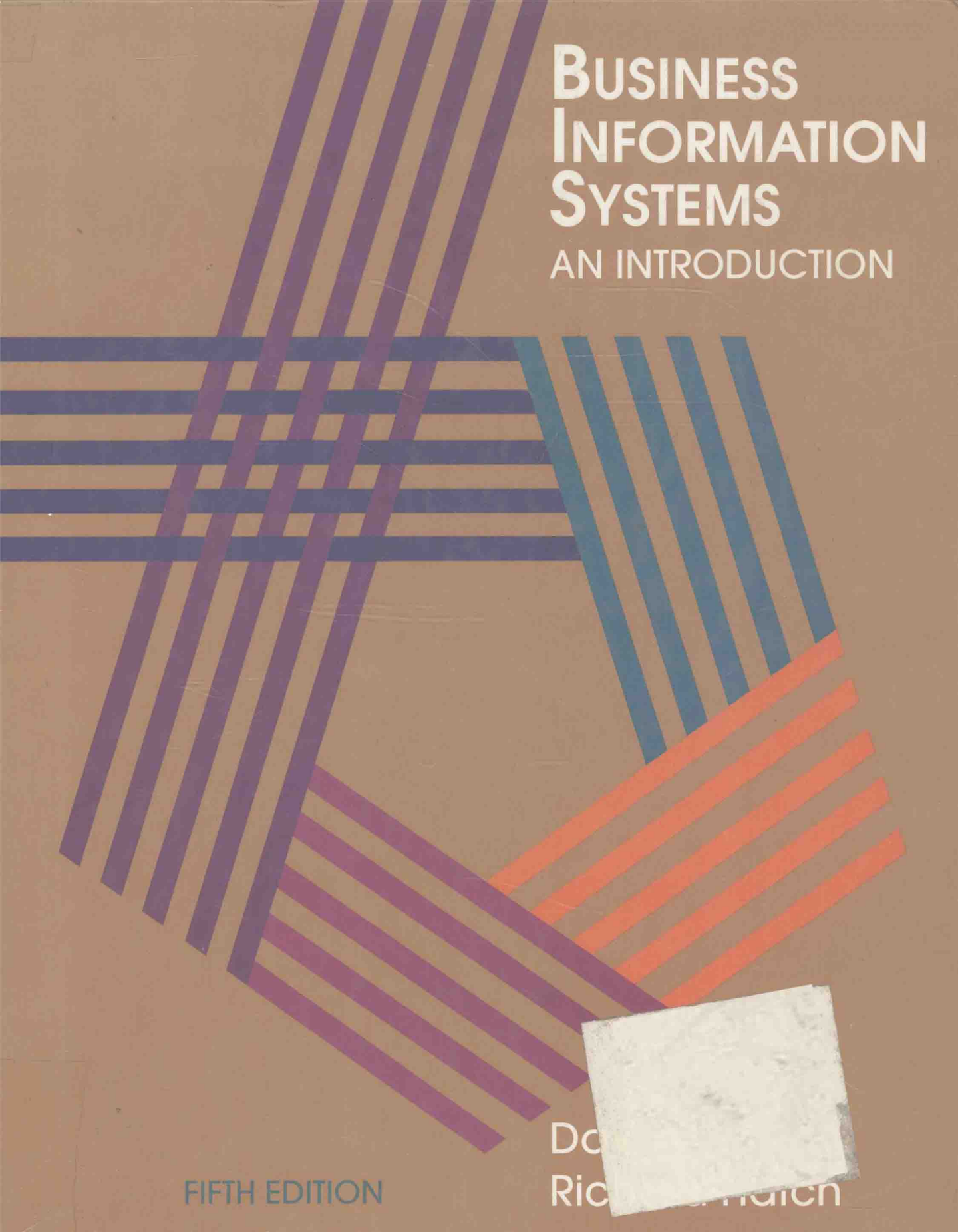
BUSINESS INFORMATION SYSTEMS

AN INTRODUCTION



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FIFTH EDITION

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BUSINESS INFORMATION SYSTEMS

AN INTRODUCTION

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About the Cover

The authors of *Business Information Systems, Fifth Edition*, define business information systems in terms of five components: hardware, programs/software, data, procedures, and people. The pentagon on the cover symbolizes this Five-Component Model. This timeless model has served as a unifying framework throughout the text since it was introduced by the authors in the First Edition in 1981.

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FIFTH EDITION

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Preface to the Instructor

Business Information Systems: An Introduction, Fifth Edition, is designed for a business-oriented introductory information systems course that prepares business students to use information technology efficiently and effectively in their careers.

Our Primary Goal

This fifth edition of **Business Information Systems** focuses on fundamental concepts, concepts that will endure the changes in information technology that users confront daily. Specifically, this book prepares students to answer the following key questions:

1. What are the components of an information system?
2. What are the basic levels of information systems?
3. How are information systems developed?
4. How can computers help us increase productivity?
5. How can information systems facilitate management and decision making?

Here's how **Business Information Systems** answers these questions.

1. What are the components of an information system?

As in every edition of **Business Information Systems, information systems are defined in terms of hardware, programs, data, procedures, and people.** In any computer-based information system, these five components interact to satisfy information needs.

Many books share this definition. But only **Business Information Systems** uses this definition throughout the text as a unifying framework—in Chapter 2 to present the fundamentals of information systems, in Chapter 3 to describe the components of personal information systems, and in Chapters 8 and 9 to describe the components of shared information systems.

Whenever students encounter a new type of system, they will know to ask: What type of hardware is required? What programs? How is the data organized? Which procedures will be required? Who will be needed to support the system? This *five-component framework provides a durable structure for teachers to organize their lectures and for students to organize their learning.*

2. What are the basic levels of information systems?

Personal information systems versus shared information systems. Only **Business Information Systems** clearly differentiates these systems. Since personal systems seem more relevant and of greater interest to the average business student, they are covered first, in Part II. Shared systems follow, in Part III. Thus, we *meet students at their level of expectation, then expand the discussion to satisfy the rest of our expectations.*

3. How are information systems developed?

This course is often the only information systems course required of business students. It may be their sole opportunity to learn how systems are developed. At the same time, users have become increasingly involved in this process with the boom in end-user computing. However, users' *roles and responsibilities and the development methodology followed depend on the complexity of the business needs and the desired system.*

Only **Business Information Systems** recognizes the need for varied development methodologies. **Chapter 7 introduces prototyping, most appropriate for developing personal information systems.** Here, users assume primary responsibility for development. Then **Chapter 11 introduces the more in-depth systems development life cycle (SDLC) and computer-assisted software engineering (CASE), more appropriate for shared systems.** Once again users are actively involved in the process, if only to ensure their information needs are satisfied by the new system.

4. How can computers help us increase productivity?

Chapters 4, 5, and 6 focus on the concepts underlying the business applications of word processing, spreadsheets, and personal databases. These chapters don't demonstrate specific keystrokes, which would be quickly dated. Instead they *illustrate useful techniques for exploiting software functionality and for building effective business applications.*

These chapters benefit most from our use of brief, real-world vignettes to simulate the business environment where productivity tools are used. Users of the past four editions have told us *the vignettes enable their students to envision the types of problems and information needs they'll face in business.* They add interest and motivate students to develop effective applications.

5. How can information systems facilitate management and decision making?

In addition to improving their own productivity, students will need to know how to facilitate management. Information has emerged as an organizational resource—much like capital. *To be competitive, students must be prepared to quickly recognize and assess opportunities to use information technology to strengthen the organization's competitive position.*

Chapter 12 illustrates how effective systems can enhance managerial decision making. Organizational information systems are defined in terms of the five components: hardware, programs, data, procedures, and people.

Building on the Strengths of Prior Editions

Reviewers of the previous edition endorsed our overall structure for the reasons just described. In addition, our reviewers offered a number of useful suggestions which resulted in the changes summarized in Figure I.

Change Requested	Example of Response	Benefit
Use five-component framework *only* where appropriate	Chapter 2 and chapters introducing Part II (3) and Part III (8) are organized around this framework.	Demonstrates how hardware, programs, data, procedures, and people *interact* in a system.
Delineate text structure more clearly	Part II on personal information systems; Part III on shared systems.	Introduces concepts *in context* of appropriate level of system.
Differentiate systems development processes	Chapter 7 describes how users develop personal systems using prototyping; Chapter 11 describes the more structured systems development life cycle for shared systems and introduces CASE.	Increased practicality; reflects how systems are developed *in reality*.
Emphasize concepts over keystrokes	Chapter 4, 5, and 6 now emphasize the concepts underlying how to use software effectively rather than specific keys to press.	Students learn *timeless* concepts for exploiting software functionality *transferrable* to any package.
Centralize coverage of related topics	Reorganize Part III; consolidate coverage of data communications (9) and shared database processing (10). MIS is consolidated in Chapter 12.	Easier for students to relate pieces, and reference later.
Reduce technical load in Chapter 2	Redistribute parts of Chapter 2; some material integrated into Chapter 3.	Enhances *continuity* of presentation.
Update information technology	Increase coverage of prototyping, CASE, downsizing, outsourcing, client-server processing, line MIS, RISC computers, groupware, GUIs, etc.	The more *current* the text, the more *competitive* your students.
Add coverage of ethics and international issues	Add section on international information systems to Chapter 9; ethics to Chapter 12.	Heightens students' sensitivity to issues of increasing concern in business.
Integrate real world vignettes	Vignettes illustrate key concepts throughout the text.	*Simulates real-world* environment for students lacking business experience, reinforces concepts in context.
Enhance text design	Brand new interior design, including 4-color photos and illustrations.	Increases student interest, motivates learning.

FIGURE I Changes in *Business Information Systems: An Introduction*, Fifth Edition

Comprehensive Support Package

A variety of supporting materials is available to adopters of this text, including:

- **Application software tutorials** More than 30 lab modules can be mixed and matched to support this text and meet your specific lab objectives. Ask your local Mitchell McGraw-Hill representative for a current listing.
- **Student Study Guide**, by Diana Stark. Each lesson includes Highlights, Objectives, Knowledge Review (in fill-in-the-blank, multiple-choice, and true/false formats), Case Study Review, and Recommended Readings. Over the past four editions, this popular supplement has been ordered by over 50% of adopters of the text.
- **Instructor's Manual**, by David Kroenke and Richard Hatch. Includes lecture outlines, a summary of changes to ease the transition from the fourth to the fifth edition, teaching tips, and answers to review questions.
- Color **transparencies** and black-and-white masters.
- **Test Bank**, printed and on disk with computer test generator.
- Twelve documentary-style, broadcast-quality **videotapes**.
- **Electronic Computer Glossary**

If you would like information and costs on the application software tutorials, Study Guide, color transparencies, videotapes, and Electronic Computer Glossary, please contact your Mitchell McGraw-Hill sales representative

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David Kroenke has more than 25 years of experience as a practitioner in information systems. David has authored seven books for information systems curricula. He is a popular speaker at ISECON, ICIS, and the National Computer Educator's Institute, and each spring for the past 12 years has participated in Interface's Computer Currency Seminar series.

Richard Hatch has taught business information systems and business communications for over 25 years at the University of Illinois at Urbana, Western Michigan University, and San Diego State University. Dick's clear understanding of student needs complements David's practical, real-world knowledge of how information systems are developed and used in business.

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