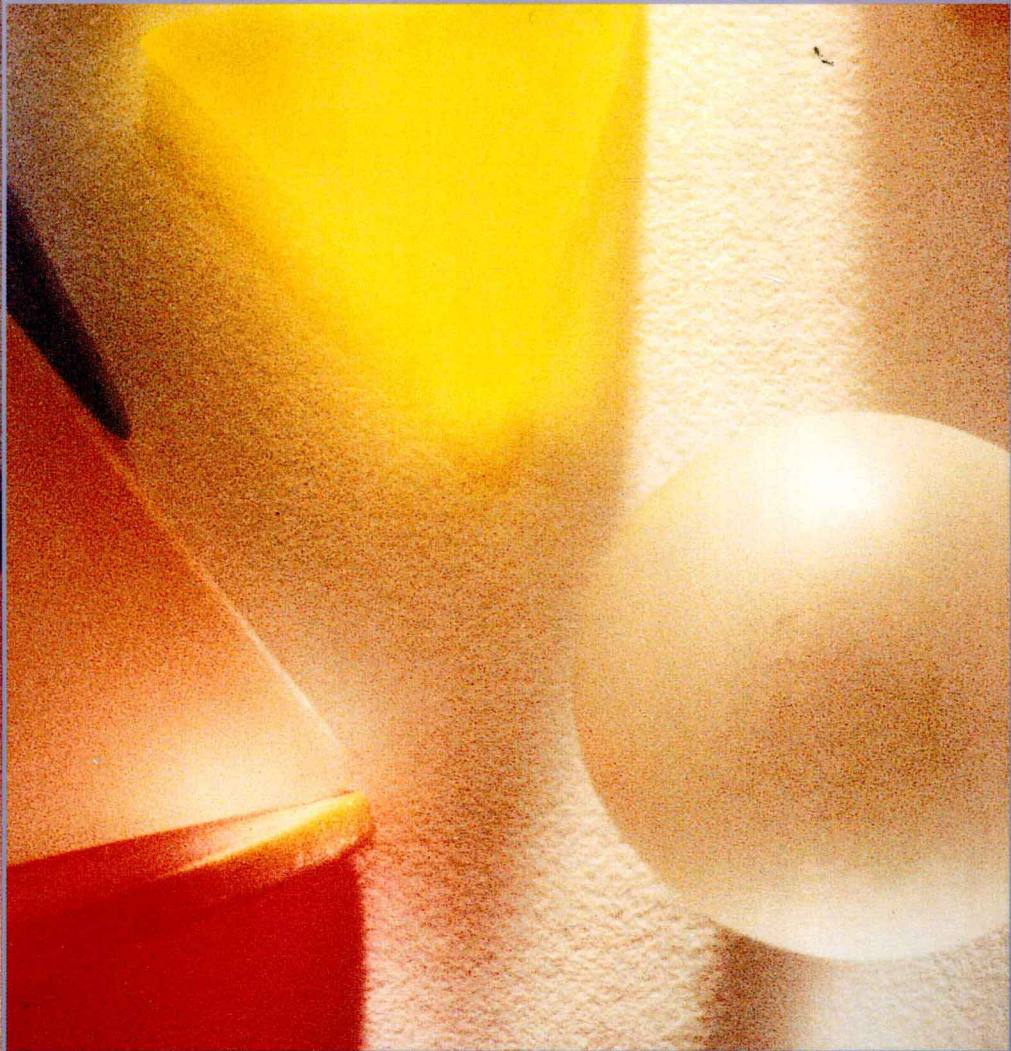


CORE CONCEPTS OF ACCOUNTING INFORMATION SYSTEMS

FIFTH EDITION



**STEPHEN A. MOSCOVE
MARK G. SIMKIN
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Fifth Edition

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To my wife Laura, and my children Justin, Jodi, Sarah,
and Stephanie.

To my parents, Edward and Selma Simkin.

In loving memory of my father, John C. Merritt, and,
my friend and colleague, Johnny R. Johnson.

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Preface

Every aspect of accounting has been fundamentally changed by information technology. Financial reporting, cost accounting, auditing, and tax are all affected. The accounting profession is in a state of flux as many of the tasks accountants used to perform have been relegated to computer programs. We believe, however, as do many others, that the future of accounting is quite promising, provided accountants and auditors learn to use new technologies to their advantage. Knowledge of the many topics that comprise accounting information systems (AIS) is a good beginning.

The purpose of this book is to provide students with a basic understanding of accounting information systems. The composition of AIS is

subject to some interpretation, but we believe it is the knowledge that accountants need for understanding and using information technologies and for knowing how an AIS gathers and transforms data into useful decision making information. In developing the content of this textbook, we have relied heavily on the 1987 American Accounting Association *Report of the AAA Committee on Contemporary Approaches to Teaching Accounting Information Systems*. In this report, the special committee identified nine content areas for AIS and prerequisite courses. In this textbook, we have addressed all of these content areas. The table below identifies the chapters that provide the major coverage of each topic.

ACCOUNTING INFORMATION SYSTEMS COURSE CONTENT AREA COVERAGE	
Content Area	Chapter(s)
Database Concepts	6
Internal Control	8, 9, 10
Technology of Information Systems	2
Use of Systems Technology	1, 2, 7
AIS Applications	4, 5
Management Use of Information	1
Management of Information Systems	3, 6, 12
Systems Analysis and Design	12, 13, 14
Auditing of AIS	11

We have been teaching AIS for several years and we have been in touch with many others who teach this subject. We have learned that, despite some common content that encompasses the topics listed in the AAA study, there

is a wide variety of subject matter and pedagogy. In some schools, this course is used as a place to teach accounting students everything they need to know about computers. In other colleges and universities, the course is used to

teach students about building databases. In yet others, the course concerns transaction processing and accounting as a communication system, having little to do with the technical aspects of how the information communicated is processed.

Given the variety of ways in which this course is taught, we have developed a textbook that covers the basics of AIS. It is our hope that individual instructors will use this book as a foundation for an AIS course, building around it to suit their course objectives. The textbook may be supplemented with other books, cases, computer programs, or readings. The arrangement of the chapters permits *flexibility* in the instructor's subject matter coverage. Certain chapters may be omitted if students have covered specific topics in prior courses. In writing the text, we have assumed that all students will have completed basic courses in financial and managerial accounting. The text is designed for a one-semester course in AIS and may be used at the community college, baccalaureate, or graduate level.

Part One introduces students to the subject of AIS. In the first chapter, we lay the basic foundation for the remainder of the text and set the stage for students to think about accounting in the information age. Chapter 2 provides students with an overview of the technologies used to communicate accounting information today. While some students may have had a basic computer course which introduced them to hardware and software topics, it is our experience that accounting students frequently need this material reinforced. Critical to the success of an AIS, and also to one's understanding of an information system, is appropriate systems documentation. Chapter 3 describes the various tools accountants use to document AISs for their own and others' understanding of information flows.

Part Two emphasizes an AIS's functions of collecting, recording, and storing business data. Chapters 4 and 5 concern transaction processing. Instructors who focus on transaction cycles in an AIS course may choose to use supplemental pedagogical tools, such as software and practice sets, to cover this material in more depth. In addition to providing an overview of

the basic transaction processing cycles in Chapters 4 and 5, Chapter 5 explains to students that many organizations have unique AIS needs. This is, we believe, an important idea, as accounting students frequently think of an organization's AIS needs as generic and they are unfamiliar with the special information needs of a vertical market organization. Chapter 6 covers the important topic of databases. Databases are becoming the foundation of many AISs. Chapter 7, the last chapter in this section, introduces students to the higher level processing that takes place in decision support systems, expert systems, and neural networks.

An important function of accountants working within an organization's AIS is to develop efficient and effective internal control systems. The subject of internal control is discussed throughout the book and is emphasized in Part Three. In Part Three you will find Chapter 10 to be quite unique. It focuses on computer crime and computer security. Chapter 11 covers the important topic of information systems auditing. We have tried to present the material in Part Three in a way that it may be used by students who study AIS prior to taking an auditing course, as well as for students who study auditing before AIS.

The final section of this book, Part Four, examines systems studies through an in-depth coverage of performing one for an organization. Recognizing that some students studying AIS may have previously taken a course in management information systems (MIS) where they were introduced to systems development topics, the emphasis in Chapters 12, 13, and 14 is on the accountant's role in the development of an AIS. Many of the computer and accounting concepts developed in previous chapters are integrated in Part Four's discussion of systems study.

Each chapter begins with an outline and a list of learning objectives that emphasize the important subject matter of the chapter. Real world cases are woven into the text material and each chapter also highlights a real world case or concept in the *AIS at Work* feature. The chapters end with a summary and list of key terms discussed within the chapter materials. A

wide variety of end-of-chapter exercises include discussion questions, problems, and cases. The variety of discussion questions, problems, and cases enables students to examine many different aspects of each chapter's subject matter and also enables instructors to

vary the exercises assigned each semester. Supplements to this textbook include an instructors manual containing suggested answers to the end-of-chapter discussion questions, problems, and cases, and also a testbank of objective questions.

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PART ONE

An Introduction to Accounting Information Systems

CHAPTER 1
**Accounting Information Systems
and the Accountant**

CHAPTER 2
**The Technology of Accounting
Information Systems**

CHAPTER 3
**Documenting Accounting
Information Systems**

Part One will introduce the subject of accounting information systems. Accounting's principal goal is to communicate relevant information to individuals and organizations. Chapter 1 will look at the process by which accounting achieves this goal within the business environment. It will also discuss the importance of studying accounting information systems (AIS) and the changing nature of accounting information in today's computerized information processing environment.

Users of accounting information include investors and creditors, parties outside the organization, and managers who work within the organization. Chapter 1 considers the information needs of all groups of users. Accounting information is often essential to managers for their decision-making activities. For accountants to contribute efficiently and effectively to managerial decision making, they must have a good understanding of management concepts (such as planning and control). They must also understand how these concepts affect the design and operation of accounting information systems.

Chapter 2 describes the technological environment of AIS. Although it is likely that a previous course has already exposed students to hardware and software technology, Chapter 2 will review this technology briefly and focus on its impact on AIS. The impact of new technologies affecting AIS, such as telecommunications, electronic data interchange, quick response systems, client-server systems, and electronic mail are discussed in detail.

The documentation of an accounting information system is important. It allows management, auditors, systems analysts, and other users to understand the basic processes and functions of the system. Chapter 3 describes various techniques for documenting the accounting information system. These techniques include flowcharts and data-flow diagrams.

CHAPTER I

Accounting Information Systems and the Accountant

Introduction

Studying Accounting Information Systems

Accounting Information Systems as a Subject
of Study

Reasons to Study Accounting Information
Systems

An Accounting Information System Defined and Analyzed

Accounting Information Systems Defined
Accounting and Management Information
Systems

Financial Accounting
Managerial Accounting

Major Influences on Accounting Information Systems

Behavioral Analysis
Quantitative Methods
Contemporary Management Concepts

Accounting Information Systems in the Information Age

AIS at Work: Accounting and Data Literacy

Summary

Key Terms You Should Know

Discussion Questions

Problems

Case Analyses

A Need for Control
The Board of Directors
Big Juicy Hamburger Corporation
Universal Concrete Products

References and Recommended Readings

After reading this chapter you will:

1. *Know* what the subject of accounting information systems is and *understand* why you should study these systems.
2. *Learn how* computers impact accounting information systems.
3. *Be able to differentiate* between accounting information systems and management information systems.
4. *Appreciate* how changes in technology in the information age impact financial and managerial accounting.
5. *Understand* the impact various management concepts have had on accounting information systems.