

WORD AND INFORMATION PROCESSING

CONCEPTS OF
OFFICE
AUTOMATION

THIRD EDITION

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BERGERUD/GONZALEZ

WORD AND INFORMATION PROCESSING

**CONCEPTS OF OFFICE
AUTOMATION**

THIRD EDITION

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Saddleback College

JEAN GONZALEZ

Cypress College

**TO MY SON, CHRISTEN
TO MY MOTHER, BO**

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PREFACE

Three decades ago emerged a tool that was designed to help clerical workers become more productive. The tool, capable of producing repetitive documents more efficiently, was known as a *dedicated word processor*, and the term *word processing* was coined.

Since then we have witnessed many changes in the technology, in the workplace, and in the role of the office worker. The following trends are evident.

1. Equipment costs have decreased, making technology available to more workers.
2. Applications software for word processing, spreadsheets, data base management, and communications has automated many clerical tasks and has changed the nature of the jobs themselves.
3. The technologies themselves, once viewed as separate, are now looked upon as support tools to help an information-oriented society meet its demands for information.
4. More emphasis is placed on decentralizing equipment and making information and resources available through networking.

So radically have the growth of information and attempts to cope with it affected the role of the office worker that the job categories of clerical worker, office worker, and white-collar worker have disappeared from the Bureau of Labor's statistics. The categories have been replaced by one linked to the new work and the needs of the time—*information worker*.

Not only has the job title changed. Today's information worker differs greatly from the office worker of the past. In addition to all the skills and knowledge required of a traditional office worker, the new information worker must be prepared for the challenges of technology and its effect on the workplace.

As we set forth on the third edition of *Word and Information Processing: Concepts of Office Automation*, we realized that although it was important for us to update the technological progress, it was equally important to convey to students the impact that these changes will have on their future careers. The following is a brief synopsis of the chapters and the revisions that we have made.

Chapter 1 defines information and information processing, traces the origins of word processing, describes the office in transition, outlines the new technologies, presents the concerns of the office in transition, and explains office automation in terms of its function—an information support tool. It explains who uses word and information processing and where it is used. The student

is given information on career opportunities and on how to prepare for a career in information processing.

An entirely new chapter on software and its uses, Chapter 2 explains and graphically illustrates the types of applications software currently popular in industry—for word processing, spreadsheets, data base management, communications, graphics, and integrated applications. The terms systems software, applications software, utility software, and programming languages are explained.

Up-to-date coverage of hardware components—displays, keyboards, processors, and storage—is provided in Chapter 3.

Chapter 4 explains the evolution of hardware categories and the effect that the microcomputer has had on the marketplace.

Chapter 5 provides an update on voice processing technologies and the purposes for which voice processing is used—machine dictation, electronic shorthand, and voice message systems; Chapter 6 is an update on peripherals—printers, OCR, and image processors. In Chapter 7 the technology for electronic distribution/communication is explained. New examples and illustrations were added to simplify the presentation. Chapter 8 covers electronic delivery systems.

Chapter 9 utilizes a systems approach to records management and updates the coverage on information retrieval. The integration of office automation is discussed comprehensively in Chapter 10. It explains the various approaches to integration, compares the information center to the LAN method, describes future trends, and explains the basic elements of information resource management.

Chapter 11 explores the kinds of planning that must be done before implementing information processing, describes factors to consider when selecting equipment, emphasizes the need to create an environment where people can be most productive, and explains the difference between automating a large and a small organization. Chapter 12 describes the various systems designs that may be chosen in reorganizing for information processing and stresses the need for procedures and a procedures manual to guide the reorganization.

Chapter 13 identifies the new information processing professionals, contrasts the traditional office role with that of the new information worker, describes the requirements of various information processing positions and the requisite skills and knowledge needed by applicants for these positions, presents opportunities for special employment groups, and offers several sources of employment information. Chapter 14 emphasizes the people aspect of information processing—what motivates employees to be productive and what kind of leadership encourages good employee morale. It examines the reasons why people resist change and why they might resist the transition to information processing. The concept and significance of quality circles are explored.

Special Features

As with the previous editions of this text, we have concentrated on presenting the material in a nontechnical, readable fashion. The specific features that readers have remarked favorably on in the past have been retained: Learning objectives; Highlighted key terms and descriptive notations in the margins; Meaningful diagrams and illustrations; Comprehensive chapter summaries; Comprehensive chapter review questions; Case studies; and Comprehensive glossary.

Software Supplement

Since students are eager to experiment with the new technologies, a software supplement has been prepared to provide them with hands-on experience with word processing, spreadsheets, data base management, graphics, and communications applications software concepts. With specially designed educational software and a corresponding learning guide to guide them, students are introduced to the software through a series of progressive hands-on projects that progress from simple to complex. Microcomputer Business Applications and Projects was prepared by Dr. Donald Busche and the software was developed by Daniel Esbensen and Allen Roske of Touch Technologies, Inc.

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For reviewing the manuscript of the third edition and offering many suggestions, we thank Patricia Beagle, Bryant & Stratton Business Institute; Donald M. Donin, Kingsborough Community College; Elsie Doser, Truckee Meadows Community College; Joanne Floyd, Mt. San Antonio College; Prof. A. Goodfriend, Queensborough Community College; Homer M. Hayes, III, San Antonio College; Florence E. Hesse, Pierce Junior College; Rick Kunis, Robert Fiance Business Institute; Francine Levitt, ITT Taylor Business Institute; Beverly McKay, SUNY at Morrisville; Charlene Pollyea, Los Angeles Valley College; Elaine Schmittke, Nassau Community College; Sherry Schleicher, The Berkeley School; Dr. Patricia E. Seraydarian, Oakland Community College; Estelle M. Sherry, Greater Hartford Community College; Judy Sunayama; Becky Wilson, John Wood Community College; and Mary Alcon-Young.

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A special thanks goes to the one person who has endured this and previous editions with us, who never fails to see us through our deadlines, whose selfless dedication to the project far surpasses anything we could ever expect from anyone, and whose friendship we treasure—Patti Claffey. To anyone we might have missed and to those who made our task a little easier, we offer our sincere thanks.

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Marly Bergerud
Jean Gonzalez

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PART 1

INTRODUCTION TO WORD AND INFORMATION PROCESSING



