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# **WORD/INFORMATION PROCESSING**

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## **Concepts of Office Automation 2ed.**

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# **BERGERUD/GONZALEZ**

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# **WORD/INFORMATION PROCESSING**

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## **Concepts of Office Automation**

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**SECOND EDITION**

**MARLY BERGERUD**

Cypress College

**JEAN GONZALEZ**

Cypress College

**JOHN WILEY & SONS**

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# **WORD/INFORMATION PROCESSING**

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## **Concepts of Office Automation**

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**TO MY SON, CHRISTEN, AND MY HUSBAND, DON**  
**TO MY MOTHER, BO**



# PREFACE

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

As educators, we thought it important to share with our students the knowledge of this significant technological advance. In 1978, our textbook *Word Processing Concepts and Careers* was published. Through it, students could learn what word processing was, how it affected the traditional office structure, and what new and exciting careers it had created.

By the time we set out to revise that book in 1981, people had become more aware of word processing. Many were using it in their jobs and understood its applications. Some users had already demanded increased capabilities from manufacturers of dedicated word processors, and the manufacturers had responded. Word processing technology was changing and the emphasis had shifted. Word processing had evolved into an information support tool designed to make managers more productive. We, however, were faced with a dilemma: how to update our text to reflect these changes without making it too advanced for the many students just starting out in word processing. To resolve the dilemma, we created a new book, *Word/Information Processing Concepts*, to include management concepts and also reflect the transition that was taking place. In the same year, the International Word Processing Association (IWPA), a professional association for managers, also changed its name to the International Information/Word Processing Association (IWPA) to reflect this transition, and others followed in the use of the phrase “word/information” to describe the industry in transition.

Since the first edition of *Word/Information Processing Concepts*, the transition has continued. Writers like Alvin Toffler in *The Third Wave* and John Naisbitt in *Megatrends* have made us aware of the transformation of our society from the industrial revolution to the information revolution. With the decrease in the cost of computer technology and the growth of the microcomputer industry, word processing has established itself as a undisputed tool for nontechnically oriented people. Word processing is now available not only on dedicated word processors, but on microcomputers and mainframes. It is the focal point of large offices, small businesses, homes, educational institutions—wherever people need to use information to become more productive. Its impact in organizations is felt no longer at just the clerical level but throughout every level of worker within an organization from shiploading clerk to company president.

More significant, however, is that word/information processing has been so successful in automating document production that other office tasks have had to be automated. In preparing the second edition of this book we felt that it was necessary to go a step beyond word/information processing toward office automation. Since telecommunications and electronic delivery systems have become increasingly important, we have provided more information in the area of distribution/communication. We have done this primarily to create a comprehensive reference textbook where information not

otherwise readily available could be found; teachers should use their discretion, presenting all or some of the material depending on the needs of their individual classes. Most information presented in these chapters is independent of information in previous chapters to allow selectivity.

In this book, our intent is to place word processing in proper perspective with respect to data processing, information processing, and office automation. The major professional word processing organization changed its name in 1983 to the Association of Information Systems Professionals (AISP) to give new direction to all who design, implement, manage, and use all types of information systems. For the same reason we have changed the subtitle and the direction of this book.

As in the previous edition, we have included learning aides for the reader. We have attempted to improve upon the design of the text and remedy any shortcomings. Key terms are listed at the end of each chapter, bold-faced in the text, and precisely defined. Other important ideas are italicized. Side margin notes, headings, and footnotes emphasized in color direct the reader's attention to key concepts. Examples illustrating concepts now appear boxed throughout the text. A color photograph insert shows actual offices designed for word/information processing and today's worker.

The following changes in this edition should be noted for users of the first edition of *Word/Information Processing Concepts*.

In Chapter 1, the overview of word processing has been expanded and divided into two sections: Section A contains Concepts of Technology; Section B, Careers and Industry Applications.

In Chapter 3, new information on the generic characteristics of word processing and on document processing has been added to help people who are not using word/information processing equipment to have a better understanding of its operation.

Chapter 5 contains the peripherals—printers, OCR, and image processors. To group the various peripherals in one chapter, the discussion of printers had to be moved from Chapter 4.

Chapters 6 and 7 have been reorganized with more attention given to the technology that makes electronic distribution/communication possible.

Chapter 7 provides a more comprehensive discussion of the actual electronic delivery systems and more examples to help illustrate important concepts.

Chapter 8 contains all the discussion of information retrieval previously found in Chapter 6. Information on current records management technology and information retrieval through data bases has been added.

Chapter 9 is a new chapter designed to show how the trend is to link the information support tools to create an information network. It describes the levels of office automation that vendors must provide to achieve total integration of office automation. It also describes some other uses of computers in areas such as manufacturing, architecture, theatre, medicine, and robotics.

Chapter 14 contains some new case studies from actual industries that are attempting to use and to integrate more of the new office automation technologies.

As in the past, we have written this book with you, our readers, in mind. We hope that you will find it both useful and pleasurable.

**Marly Bergerud**  
**Jean Gonzalez**

# PREFACE TO THE FIRST EDITION

The automated office of the future could exist today. The obstacle to progress lies not in the lack of technology, but in the costs involved in obtaining the technology, reorganizing the office, and getting people to accept change. The only constant in today's office is change. Changes in technology continue to transform and broaden the definition of word processing, so we have used the term *word/information processing* to describe the word processing industry while it is in transition from word processing to information processing. The professional organization International Word Processing Association changed its name in 1981 to International Information/Word Processing Association to reflect this transition.

Often people with expertise in using word/information processing technology are promoted to operative levels of management, with little or no management training. It is not within the scope of this book to provide management training, but Chapters 8 through 11 discuss the concepts that are necessary in managing the change to word/information processing. If employees are to be productive using the new technology, they need to work in an environment planned for their physical and psychological well-being. Also, people who work in this environment need to develop new skills and new attitudes toward their work. We therefore felt it necessary to include a discussion of both the technological and human elements in word/information processing.

A study of the word/information processing industry would not be complete without an insight into actual case studies. Through the cooperation of many organizations, we have been able to provide this insight. These case studies appear in Chapter 12.

As educators, we can do little about technological costs, but we can be instrumental in preparing people for changes that are inevitable in the office. As office technologies develop, these changes must be reflected in office education curricula.

Although the acquisition of equipment is desirable for training people in the area of word processing, it need not prevent the introduction of word/information processing concepts. Concepts can be taught in industry seminars or through existing business education courses such as machine transcription, advanced typing, secretarial procedures, office procedures, business communications, office management, or any other business related course. With this in mind, we designed our textbook for both the educators who are fortunate enough to be able to restructure their office education curricula to include a course in introduction to word processing and for those who must use the textbook within existing courses. It can also be used by people in industry who want to gain insight into the total concept of word/information processing. Each chapter is a complete study unit and lends versatility to the way in which the textbook might be used. The study



unit consists of behavioral objectives, a readable text with clearly defined terms, study guide questions, questions on concepts, and a case to check the reader's understanding.

The resource manual contains a detailed lecture outline for instructional use, transparencies, activity question, cases, additional chapter tests, a final examination, and supplementary instructional aids.

We hope that you will find this text readily adaptable to your needs and an enjoyable reading experience.

**Marly Bergerud**  
**Jean Gonzalez**

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**Jean Gonzalez**

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