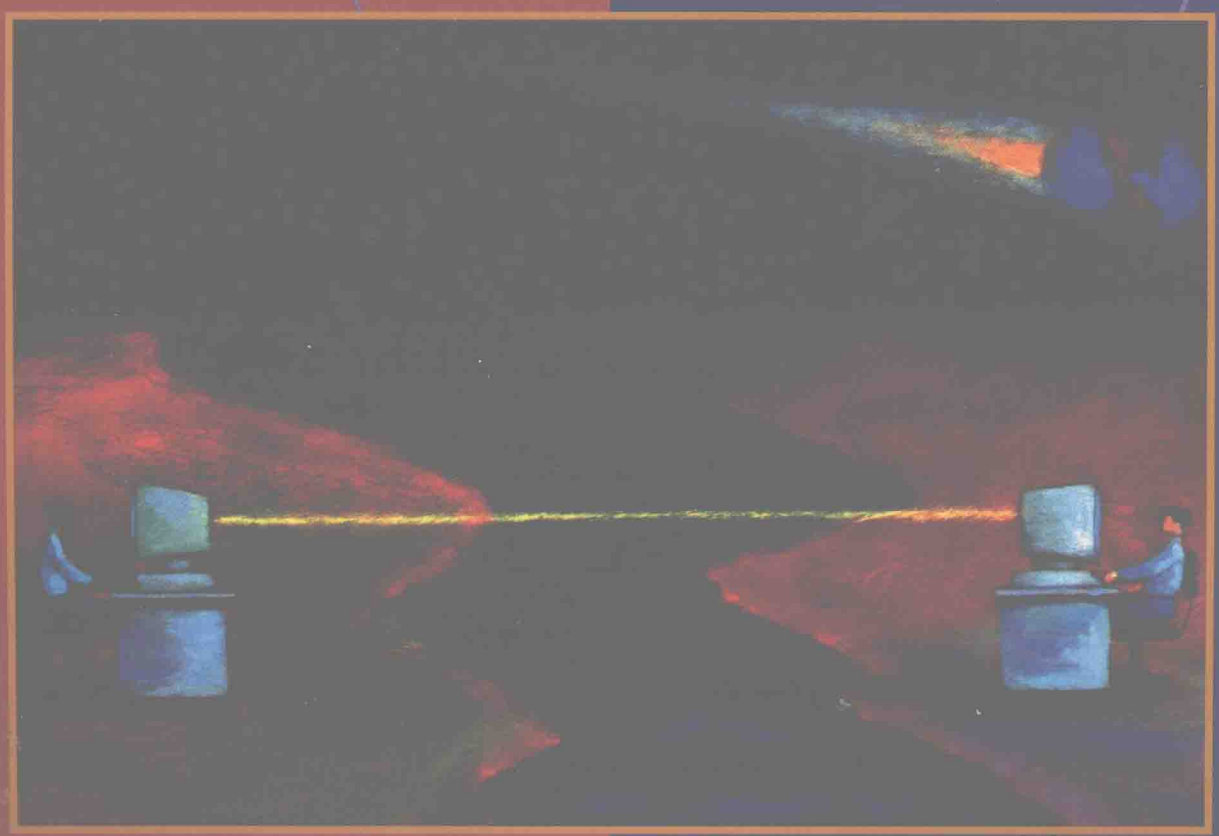
COMPUTERS, COMMUNICATIONS, and INFORMATION

A User's Introduction



Comprehensive Version

Sarah E. Hutchinson • **Stacey C. Sawyer**

REVISED EDITION

COMPUTERS, COMMUNICATIONS, AND INFORMATION

A USER'S INTRODUCTION

COMPREHENSIVE VERSION

REVISED EDITION

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PREFACE

Why We Wrote This Book: Meeting the Needs of Users

Computers, Communications, and Information: A User's Introduction, Revised Edition, is written for future computer users—people who will use the computer as an everyday tool for working with reports, spreadsheets, databases, and the like. It is not intended only for students who will eventually write programs or design computer systems.

We wrote this book in order to provide instructors and students with the most useful information possible in an introductory computer course. Specifically, we offer the following five important features:

1. Complete coverage, avoiding unnecessary detail
2. Practical orientation
3. Interesting, readable explication
4. Learning reinforcement
5. Complete course solutions: supplements that work

We elaborate on these features below.

Feature 1: Complete Coverage, Avoiding Unnecessary Detail

This book offers complete coverage of core concepts of computers and information technology. We have tried to be neither too brief nor too encyclopedic, offering users just what they need to know to use a computer competently. Moreover, we have avoided the cluttered, over-illustrated look and style that many instructors tell us they find objectionable in other texts. Thus, you will not find icons, margin notes, cartoons, or similar distractions.

IMPORTANT NOTE—Core and Comprehensive Versions: This book is available in two versions: the Core Version includes Chapters 1–8 and Episodes 1–4; the Comprehensive Version includes all 14 Chapters and Episode 5.

Feature 2: Practical Orientation

The text presents information on capabilities of microcomputers that users can apply at work, home, and school. For example, we provide up-to-date, practical discussion of . . .

- Use of the Inernet and the World Wide Web
- PC and Macintosh hardware, addressing upgrading and compatibility issues
- Buying and maintaining a microcomputer system
- Computer-related health and safety matters
- Ethics, privacy, and security
- Common features of applications software
- Object-oriented programming, expert systems, virtual reality, and digital convergence

Feature 3: Interesting, Readable, Style

We are gratified that over many editions reviewers, instructors, and students have found our writing style praiseworthy. Our primary goal is to reach students by

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making our explanations of concepts as clear, relevant, and interesting as possible.

The book has also been completely redesigned, and all the art has been recreated, to provide a modern, accessible look.

Feature 4: Learning Reinforcement

We have developed a variety of learning aids to provide learning reinforcement:

- ***Chapter objectives and previews:*** Each chapter opens with a list of chapter *learning objectives* and an introductory section entitled *Why Is This Chapter Important?*
- ***Section previews:*** Each section heading is followed by a short *preview* of the text to come.
- *New Format!* ***Chapter summaries:*** Each chapter concludes with a *Summary* section to help students review. All the important terms appearing in a chapter—and the page numbers where they appeared—are also included. We also connect each summary item with its related numbered learning objective from the beginning of the chapter.
- ***Self-tests, exercises, and critical thinking questions:*** *End-of-chapter fill-in-the-blank tests, short-answer exercises,* and *critical thinking questions* enable students to test their comprehension and encourage them to learn more about microcomputers on their own.
- *New Feature!* ***Career boxes:*** Special boxes show students how computers are used in some common and uncommmon ways in the workplace.
- *New Feature!* ***Episodes:*** Several *Episodes,* case studies of *Amazon.com*, appear throughout the text to provide students with practical insights into establishing a Web-based business.

Feature 5: Complete Course Solutions—Supplements That Work

Computer concepts are only one part of the course experience. Our instructional package also includes ***applications software tutorials, interactive software modules, lecture enhancement software, instructor support materials,*** and a ***software support program.*** We elaborate on these below.

Support for Students

Applications Software Tutorials: Our publisher, Irwin/McGraw-Hill, offers five different series of software applications tutorials, which present five different hands-on approaches to learning software. Check with your local sales representative to learn about the specific software covered in each series.

- *The* ***Advantage Series*** *for Computer Education by Sarah Hutchinson and Glen Coulthard:* Averaging 224 pages per manual, the *Advantage Series* provides software tutorials for a large number of popular software packages, including the latest versions of Microsoft Office. Each tutorial leads students through step-by-step instructions not only for the most common methods of executing commands but also for alternative methods.

  Each session within a manual begins with a case example and concludes with case problems showing real-world application of the software. Quick-reference guides appear throughout. Boxes introduce unusual functions that will enhance the user's productivity. The *Advantage Series* will train your students to become proficient users of today's key productivity tools.

- In partnership with MindQ Publishing, Irwin/McGraw-Hill brings you ***Advantage Interactive Software Tutorials:*** Based on the printed *Advantage Series* texts described above, these CD-ROMs combine sight, sound, and motion into a truly interactive learning experience. Video clips, simulations, hands-on exercises, and quizzes reinforce every important concept. *Advantage Interactive* CDs are available for Microsoft Office 95 & 97 Professional, and are designed to be used independently or with the corresponding manuals.
- The ***O'Leary Series*** *by Linda and Timothy O'Leary:* Designed for application-specific short courses, each manual offers a project-based approach that gives students a sense of the real-world capabilities of software applications. Extensive screen captures provide easy-to-follow visual examples for each major textual step, while visual summaries reinforce the concepts, building on students' knowledge. O'Leary Series manuals are available for a wide variety of software applications, including the latest versions of Microsoft Office.
- ***Interactive Computing Skills*** *by Ken Laudon and Azimuth Multimedia:* This series of CD-ROM-based tutorials offer complete introductory coverage of software applications. Each lesson takes 45–60 minutes to complete, and is narrated and highly interactive. With up to 4 lessons per disk, you'll find *Interactive Computing Skills* a valuable addition to your courseware package or an excellent self-study tool. Each CD features a "SmartQuiz"at the end of lessons to actively test software skills within a simulated software environment. Available for Microsoft Office 4.3 and 97.
- *The* ***Effective Series*** *by Fritz J. Erickson and John A. Vonk:* Written specifically for the first-time computer user, the *Effective Series* is based on the premise that success breeds confidence and confident students learn more effectively. Exercises embedded within each lesson allow students to experience success before moving on to a more advanced topic. The "why" as well as the "how" is always carefully explained. Each lesson features several applications projects and a comprehensive problem for student practice.

Interactive Software: ***InfoTech Interactive*** provides students with an expanding number of self-paced learning modules, on topics from the system unit to multimedia. Combining text, illustrations, animations, and audio narration, this tool runs in a Web browser and is available in both networked and CD-ROM-based versions. It is primarily intended for student lab use, but may also be used by instructors for additional visual explanation in a lecture setting.

InfoTech Interactive will include the following modules:

- Applications Software—Office Suites
- Applications Software—Other Apps
- System Unit
- Secondary Storage
- Peripherals
- Multimedia
- Internet
- Networks

Additional modules will be developed on an ongoing basis. Please consult your Irwin/McGraw-Hill sales representative for details on the latest *InfoTech* offerings.

Each module provides three levels of learning: (1) The *Introduction level* provides text and animated enhancement of computer concepts. (2) The *Explore level* allows the user to experiment with various scenarios and see the immediate results. (3) The *Practice level* poses cases and problems for which the user must provide solutions based on the Intro and Explore sections.

Minimum System requirements: (a) IBM PC or compatible with a Pentium processor, 4X CD-ROM drive and at least 16 MB of RAM, running Windows 3.1 or later, or (b) Power Macintosh with at least 16 MB of RAM and 4X CD-ROM drive, running System 6.01 or later.

Support for Instructors

- The ***CIT Classroom Presentation Tool*** is a graphics-intensive set of electronic slides created to enhance any lecture. This CD-ROM-based software helps to clarify topics that may otherwise be difficult to present. *Minimum System requirements:* IBM PC or compatible with a Pentium processor, 4X CD-ROM drive and at least 16 MB of RAM, running Windows 3.1 or later. An LCD panel is needed if the images are to be shown to a large audience.
- ***Instructor's Resource Manual:*** This complete guide supports instruction in any course environment. The Instructor's Resource Manual includes: *a student questionnaire, course planning and evaluation grid, suggestions for writing course objectives, suggested pace and coverage for courses of various lengths, suggestions for using the exercises in various class structures,* and *projects for small and large classes.*

  For each chapter, the IRM provides an overview, chapter outline, lecture notes, notes regarding the boxes from the text, solutions, and suggestions and additional information to enhance the project and critical thinking sections.
- ***Test bank:*** The test bank contains more than 1500 different questions, all referenced to the text. Specifically, it contains *true/false, multiple-choice,* and *fill-in questions*, categorized by difficulty and by type; *short-essay questions; sample midterm exam*; *sample final exam*; and *answers to all questions.*
- ***Computerized testing software:*** Called *Computest,* this popular computerized testing software is a user-friendly, menu-driven, microcomputer-based test-generating system that is free to qualified adopters. Containing all the questions from the test bank described above, Computest allows instructors to customize tests, entering their own questions and generating review quizzes and answer keys.

  Available for DOS, Windows, and Macintosh formats, Computest has advanced printing features that allow instructors to print all types of graphics; Windows and Macintosh versions use easily remembered icons.

  System requirements: (a) IBM PC or compatible with at least 2 MB of RAM running Windows 3.1, or (b) Macintosh with at least 2 MB of RAM running System 6.01 or later; CD-ROM drive or 3.5-inch floppy-disk drives.

  Instructors interested in administering networked tests should read the following description of the *McGraw-Hill Learning Architecture.*
- ***Videos:*** A broad selection of 20 videos segments from the acclaimed PBS television series, *Computer Chronicles*, are available. Each video is 30 minutes long. The videos cover topics ranging from computers and politics, to online financial services, to the latest developments in PC technologies..
- ***Technical support services:*** Irwin/McGraw-Hill's Technical Support is available to you on any of our software products, such as InfoTech Interactive or the CIT Classroom Presentation Tool. You can use the Online Helpdesk by linking to *http://www.mhhe.com/helpdesk.* If you can't find your answer there, call us at 800-331-5094.
- ***McGraw-Hill Learning Architecture:*** This exciting new Web-based software provides complete course administration. *MHLA* is available to students using a standard Web browser and allows for content customization, authoring, and delivery. Students can take online quizzes and tests. Their scores are automatically graded and recorded. *MHLA* also includes useful features like e-mail, message boards, and chat rooms, and it easily links to other Internet resources. The future of interactive, networked education is here today! Ask your sales representative for more information on the *McGraw-Hill Learning Architecture.*

Acknowledgments

Two names are on the front of the book, but a great many others are powerful contributors to its development.

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