

TECHNICAL COMMUNICATION

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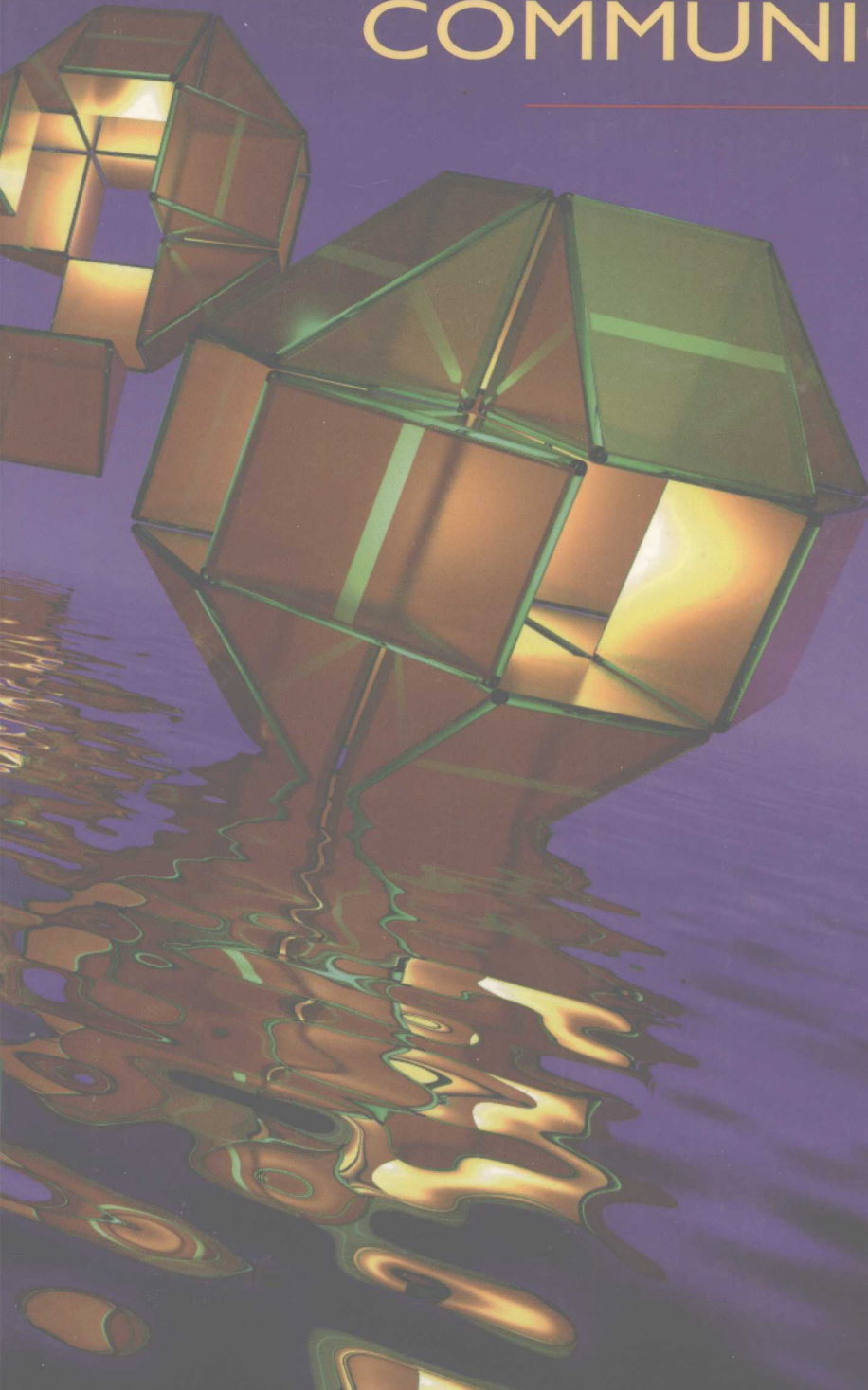
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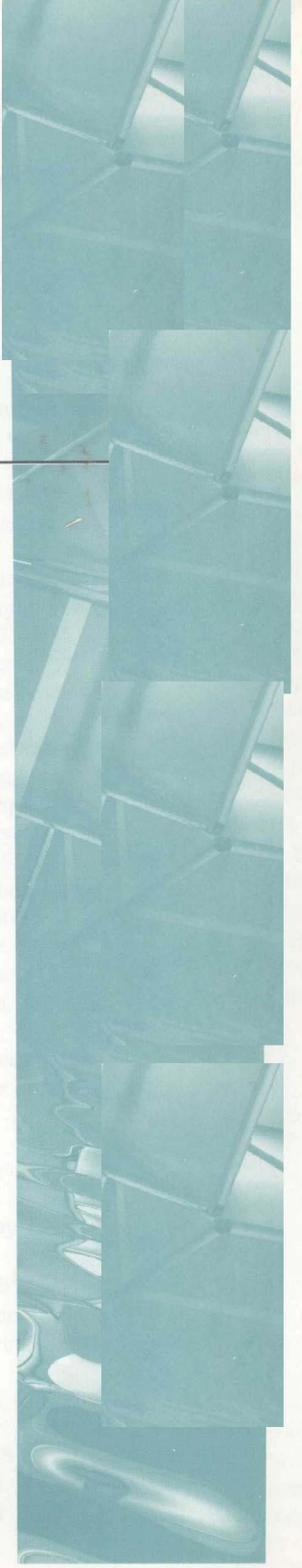
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Preface

The first question you will probably have about this text is “Why so many authors?” The answer to that question represents the nature of technical communication today.

Technical communication—the specialized communication that helps readers, viewers, or listeners respond to the challenges of a technological world—has become more complex, more socially and legally responsible, and more important in everyday life. Each of the eight authors of this textbook is an expert in some aspect of technical communication. That expertise comes from many years in the classroom and many years in industrial, research, and scholarly settings. We believe that by combining our voices, our experiences, and our knowledge we can bring you the latest communication strategies that will enable you to function in this complex technological world.

Some of you reading this book may become professional technical communicators, but almost all of you will become technical professionals who communicate. As a professional, you will need to know how to conduct research about technology, how to help your readers, viewers, and listeners—your audiences—use your information to solve problems. You will need to display technical data visually or present it orally, design and package effective documents, and use technology, particularly computers, to accomplish these tasks.

In addition, you must know what forms and formats are traditionally used on the job, how to choose an appropriate style for your communication, and how to analyze your audience’s needs and interests. You will even have to know how to cast that audience into a receptive role as they approach your communication. In order to be effective in your job, you will need to know how to establish your credibility as an author, how to write as part of a collaborative team, how to help your audience make decisions, how to avoid endangering your audience, and how to meet many more communication challenges.

In this text, then, you receive the advice of eight teachers, scholars, and practitioners, and we have worked hard to make that advice reflect a growing body of knowledge about technology and communication.

Organization *Technical Communication* has four parts. The chapters in Part One, “Understanding Technical Communication,” show you how and where communication is situated in the workplace and help you understand the uses, creators, and audiences of such communications.

- Chapter 1 focuses on the workplace, assessing how it is affected by increasing use of technology, by growing regard for how society affects and is affected by technical communication, and by increasing awareness of cultural diversity. This chapter also provides you with some of the history and special characteristics of technical communication.
- Chapter 2 teaches you how to plan your technical communications to solve workplace problems.
- Chapter 3 teaches you how to address your audiences effectively by thinking rhetorically and determining your audiences’ needs, attitudes, and knowledge.
- Chapter 4 gets you started on the writing process—planning, organizing, drafting, and revising.
- Chapter 5 focuses on the persuasive nature of technical communication and how to establish your credibility, how to appeal to your audience’s values, and how to provide good reasons for your argument.

The chapters in Part Two, “Acquiring the Tools of Technical Communication,” give you the strategies for writing effective technical communication in whatever situation you are called upon to do so.

- Chapter 6 introduces you to the nature of collaborative writing—producing documents as part of a writing team—and provides practical advice for maintaining effective interpersonal relationships in that team while you are initiating, executing, and presenting your document.
- Chapters 7 and 8 teach you research strategies for collecting and generating information, whether you use the library, conduct a survey, or navigate the Internet.
- Chapter 9 tells you how to evaluate, organize, summarize, and document the information you collect or create.
- Chapter 10 focuses on what stylistic choices to make in your technical communications and what to check, change, or correct as you revise, edit, and proofread your documents.
- Chapter 11 covers document design and packaging—everything from type styles to binding.
- Chapter 12 demonstrates how to display data visually in graphs, tables, charts, and drawings.

Part Three, “Creating Effective Documents,” focuses on the typical forms and formats used to organize technical documents.

- Chapters 13 and 14 cover definitions, descriptions, instructions, specifications, and procedures—all traditional systems for organizing technical information.
- Chapters 15 and 16 focus on the longest and often most challenging type of technical communication—the report. These chapters will show you how to recognize and create the traditional types and parts of reports and how reports help readers make decisions, based on technical, managerial, and social criteria.
- Chapter 17 demonstrates how effective proposals, which set forth solutions to problems, can win not only approval but also funding for your ideas.

The final part of this text, “Developing and Maintaining a Professional Edge,” concentrates on some common but challenging communication situations.

- Chapter 18 introduces you to the most personal and frequent type of workplace communication—correspondence.
- Chapter 19 takes those correspondence skills one step further, showing you how to apply what you’ve learned so far to the creation of a successful job search.
- Chapter 20 shows you how to apply much of what you have learned about written documents and visual displays to oral presentations.

Several features in this text make it useful and interesting for you.

Special Features

■ SOCIAL CONSTRUCTION

Many of the examples, assignments, and exercises in the text are socially situated. That is, they address not only technical but also social issues. We don’t believe that either communication or technology is an isolated phenomenon; instead, we believe that they occur in a rich setting that is shaped by economics, ethics, legal considerations, and social and cultural forces. Therefore, the examples, assignments, and exercises we offer here assume that the technology is created and used by people with various values, interests, and needs—and that technical communicators can and should help audiences understand and use technology, make decisions about technology, and solve problems with technology. When technical communicators fail at their jobs, there are consequences to those failures; communicators can alienate, frustrate, or endanger their audiences.

■ COLLABORATIVE WRITING

One of our goals is to help you see that the need to communicate about technology springs from unique and describable workplace problems, values, and goals. In fact, in this text, we assume that you never write alone—whether you collaborate within a writing team or listen and respond to the needs of people in your organization, your communications are socially constructed.

■ CASE STUDIES

This text also contains a set of documents, upon which many exercises are based. These documents, collected in Appendix A, address both technical and social issues: the AIDS epidemic, liability and legal battles, environmental concerns, and public relations concerns. You'll read how community and medical leaders have responded, through technical communication, to health care workers and the general public's need to know about AIDS and HIV. You'll read about bioremediation, a process used in the *Exxon Valdez* oil spill. You'll see how one university responded to community concern about the number of birds trapped and killed in experimental agricultural fields. And, you'll see how poorly written technical documents have injured or killed users and involved corporations in legal battles.

■ TECHNOLOGY

Throughout this text, we'll teach you how to use technology to communicate. You'll see not only how to find information within computer databases and in the electronic environment of the Internet and how to use the computer to draft and revise your documents, but also how to use the computer software to display data, organize oral presentations, and even collaborate within a writing team.

■ PERSUASION

This text emphasizes the persuasive nature of technical communication. Thus, you'll not only learn how to convey technical information in a clear and concise manner, but you'll also learn how to persuade your audience that you have found solutions for problems, helped an audience make decisions, or deserve to be hired or funded.

■ DIVERSITY

Within this text, we also remind you about the culturally diverse and international nature of technical communication. We point out when to think about your audiences' level of literacy, how to meet the needs of color-blind or

hearing impaired audiences, and when to consider an international audience's response to your words and symbols.

■ LEARNING AIDS

Finally, each chapter begins with a quotation from a technical communication scholar, teacher, or practitioner. These statements should help you think about and discuss some of the main principles within each chapter. Throughout the text, we have highlighted important or new words and defined them in the margin, so that you can easily review them. And, we have created Writing Strategy checklists and worksheets for you to use in creating documents now and in the future.

The Instructor's Resource Guide to this textbook offers a range of supplemental activities and information to the new and experienced teacher. We provide three sample syllabi for the course and directions on what themes and issues can be stressed throughout a 10-week or 15-week term. We offer specific suggestions on how to integrate the technical, scientific, social, and ethical problems within the Appendix A cases. With each chapter, we give an overview, a set of goals, definitions of important terms and concepts, teaching strategies, and supplementary activities and assignments. When appropriate, we provide overhead transparency masters and handouts. Finally, we have reprinted several landmark or recent articles that inform current approaches to technical communication teaching.

The Instructor's Resource Guide

We want to thank some special people who contributed to either our collective or individual efforts. Linda Jorn, University of Minnesota, shared with us the AIDS documents that appear in this book, and Linda Van Buskirk, Cornell University, alerted us to and helped us gather the *Exxon Valdez* documents. Laurie Gardner, University of Minnesota, helped gather information, document research sources, and produce the Instructor's Resource Guide. Gayle Berry, Clarkson University, advised us on the library research process. Lise Hansen, University of Minnesota, helped coordinate many of our research, design, and planning activities. Patricia Goubil-Gambrell, Texas Tech University, alerted us to the progress report and proposal that appear in Chapters 15 and 17. Andrew Stephenson, at Penn State, offered information on scientific writing and gave permission to use and revise his work, and Gay Gragson enhanced our conversations about audience.

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