Sixth Edition Technical
Communication
Mike Markel

2002 Update

Technical Communication

Mike Markel
Boise State University

PREFACE FOR INSTRUCTORS

The principles of good writing have not changed much in the sixteen years since *Technical Communication* was first published in 1984, but almost everything else about technical communication has. The sixth edition of this text reflects the many exciting developments that have occurred in technical communication — and in ways to teach it — in the last few years, most especially the greatly expanded importance of the World Wide Web and electronic communication tools. While maintaining the book's focus on planning, writing, and designing the major types of technical documents, the sixth edition has been thoroughly revised and updated to show the effect of new technologies on the way people produce technical communication.

Overview of the Sixth Edition

Technical Communication is now organized into five parts, highlighting the importance of the writing process in technical communication and giving equal weight to the development of text and visuals in a document.

Part One, "The Technical Communication Environment," provides students with a basic understanding of important topics in technical communication, including ethical and legal considerations, the role of the writing process in planning and developing technical documents, and the practice of collaborating on documents.

Part Two, "Planning the Document," focuses on rhetorical concerns, such as considering an audience and purpose, and communicating persuasively, in addition to the early work of gathering information — both primary and secondary research — and planning the organization of documents.

Part Three, "Developing the Textual Elements," encompasses both drafting and revising text in a document. The part describes techniques for writing definitions and descriptions, improving the coherence of text, improving sentence style, and writing front and back matter.

Part Four, "Developing the Visual Elements," addresses the fundamentals of designing the whole document as well as the individual page. It also includes advice on creating graphics for both print and online documents.

Part Five, "Applications," covers a wide range of types of technical communication: letters, memos, and emails; job-application materials, including print and electronic résumés; proposals; informal reports, such as progress and status reports, trip reports, and meeting minutes; formal reports, including informational, analytical, and recommendations reports; instructions and manuals; Web sites; and oral presentations.

Now a Completely Integrated Book and Companion Web Site

A first among technical communication textbooks, the sixth edition has been thoroughly integrated with its companion Web site. TechComm Web (www.bedfordstmartins.com/techcomm) expands the book's resources in two ways: by providing additional materials for every chapter in the book and by directing students and instructors to the best Web resources available in technical communication. The following features help students use the book and the Web site together:

- *A chart on the inside front cover of the book*, "How to Use This Book and Its Companion Web Site," outlines for students the features that the book and the Web site share.
- *Cross-references in the margins of the book* refer students to the resources available on TechComm Web and on other useful Web sites.
- *The chapter-by-chapter organization on TechComm Web* matches the book's chapters, allowing students to quickly find the information that they need on the Web site.
- *Flashcards and Online Quizzes on TechComm Web* allow students to reinforce and test their understanding of the chapters; these features provide feedback that refers students to the textbook for additional review.

New Design

The sixth edition has been completely redesigned to make the book easier for instructors and students to use. With clean, open pages, the book itself now better illustrates the principles of good technical communication.

- *A new full-color design* uses color for a purpose: to convey information clearly and easily and to show realistic design elements in screen shots and color print documents.
- *Guidelines boxes throughout the book* summarize crucial information that students need to create effective documents. For quick reference, an index of all of the guidelines appears in the back of the book.
- *A new, realistic treatment of sample documents* results in even better models of good design principles.
- *Icons and annotations in the margins* direct students to discussions of related topics in the book, on TechComm Web, and on additional Web sites.
- *A redesigned and reorganized appendix, "Reference Handbook,"* makes editing and documentation advice easier for students to find and use.

New Chapters

Three new chapters have been added to the sixth edition to help students focus on the writing process and rhetorical concerns particular to technical communication.

- *Chapter 3, "Understanding the Writing Process."* Structured according to the stages of the writing process — planning, drafting, and revising — this chapter pays special attention to the role of electronic tools and usability testing. The chapter includes a discussion of the effective use of electronic drafting and revision tools — templates, styles, automated hypertext linking, Web-conversion tools, spell checkers, grammar checkers, and thesauri — explaining their strengths and limitations.

- *Chapter 6, "Communicating Persuasively."* The heart of technical communication is still rhetoric. This new chapter provides a clear and practical introduction to the rhetorical and critical skills students need, focusing on ways to identify an audience's broader goals and craft an effective argument. It also discusses ten common logical fallacies, the role of graphics and design in presenting arguments, and the crucial link between persuasion and ethics. Finally, the chapter includes an analysis of several persuasive arguments, from both print and online sources.

- *Chapter 21, "Creating Web Sites."* The Web is one of the most important media by which organizations communicate with the public, and it is likely to remain so for some time. Students need a basic understanding of the process of creating Web pages and sites. This chapter focuses on the logic of the process — planning and creating the content, and revising, testing, and maintaining the site — as well as the rhetoric of Web pages: designing the text and graphics to meet the needs of the audience and fulfill the writer's purpose. The chapter also discusses designing pages and sites for people with disabilities and for multicultural readers, as well as several important ethical and legal issues. The chapter closes with an analysis of several Web pages.

Expanded Coverage

The book's coverage has been expanded in the following key areas to reflect a wider range of technical documents and new methods of developing them.

- *New clusters of sample documents.* Many of the chapters now conclude by presenting sample documents — both print and Web-based — that demonstrate the principles discussed in the text. These samples and their annotations help students see the principles in action.

- *Research methods.* Chapter 7, "Researching Your Subject," includes a greatly expanded discussion of using the Web as a research tool. With screen shots of actual Web searches, the chapter demonstrates the effective use of search engines and Web-based library catalogs. In addition, it provides new, detailed advice about evaluating Internet sources.

- *Documentation styles.* Included in the appendix for easy reference, the section "Documenting Sources" now covers CBE documentation style in addition to APA and MLA styles. New models for citing electronic sources have been added for all three styles. In addition, the section includes advice on citing sources correctly in order to avoid plagiarism.

- *Ethics and legal considerations.* Chapter 2, "Understanding Ethical and Legal Considerations," now discusses principles that technical writers should follow to ensure that their documents are ethical and abide by relevant laws.

- *Collaboration.* Chapter 4, "Writing Collaboratively," now provides guidelines for conducting meetings effectively to improve the process of collaboration. In addition, the chapter discusses how to use groupware features included in word processors, such as the comment, revision, and highlighting features.

- *Oral presentations.* Chapter 22, "Making Oral Presentations," devotes additional attention to presentation-graphics software, showing students how to use slides to help listeners understand the organization of a presentation, how to use speaker's notes, and how to create handouts.

A Complete Ancillary Package

The ancillary package that accompanies the sixth edition has been expanded to provide a wealth of resources for both new and experienced instructors.

- TechComm Web (www.bedfordstmartins.com/techcomm). In addition to student resources, the book's companion site offers the best Web resources available for instructors in technical communication. Instructors can find everything from password-protected reading quizzes to download and distribute to students, to sample syllabi, in-class activities, and PowerPoint slides that can be adapted for classroom use.

- *Instructor's Resource Manual.* Expanded and thoroughly revised, the resource manual now includes sample course schedules, teaching tips, chapter-by-chapter summaries, and classroom activities; commentaries on the writing and revision exercises in the text; and articles from professional journals on defining technical communication, creating portfolios, evaluating Web sites, and working collaboratively on a research project.

- "Making the Transition from Composition to Technical Communication." A new essay — downloadable from TechComm Web and available in the *Instructor's Resource Manual* — helps TAs and adjuncts apply their knowledge of the composition course to teaching technical communication.

- *Transparency Masters.* The graphics from the text are provided in a convenient form that can be adapted for classroom use. The electronic files of the transparencies may also be downloaded from TechComm Web.

Acknowledgments

All the examples in the book — from single sentences to complete documents — are real. Some were written by my students at Boise State University. Some were written by engineers, scientists, health-care providers, and businesspersons with

whom I have worked as a consultant for over twenty-five years. Because much of the information in these documents is proprietary, I have silently changed brand names and other identifying information. I thank these dozens of individuals — students and professionals alike — who have graciously allowed me to reprint their writing. They have been my best teachers.

The sixth edition of *Technical Communication* has benefited greatly from the perceptive observations and helpful suggestions of my fellow instructors throughout the country. Some completed extensive questionnaires about the previous edition; others reviewed the current edition in its draft form. I thank David Berg-Seiter, University of Florida; William Bowers, University of Florida; Erika Derany, University of Florida; Gene Doty, University of Missouri — Rolla; Lise Esch, Trident Technical College; Andrew Flood, University of New Mexico; Sandra L. Friend, East Carolina University; Kristen Hague, University of New Mexico; Kim Kirkpatrick, St. Louis University; Jim Leonhirth, Florida Institute of Technology; Martha Levine, Southwest Missouri State; Martha Mangot, New York Institute of Technology; Kimberly McFetridge, Delaware Technical and Community College; Josephine Jordan Mills, University of Denver; Marriott Nielsen, University of Maryland, Baltimore County; Jennifer Panek, Massachusetts Institute of Technology; Celia Patterson, Pittsburg State University; Tamara Powell, Louisiana Technical University; Cindy Raisor, Texas A&M University; Susan Rode-Perkins, Washington University; Jeffrey A. Schwarz, St. Louis University; Stuart A. Selber, Pennsylvania State University; Carol M. Shehadeh, Florida Institute of Technology; Blake Spence, Bob Jones University; Gregory J. Stratman, University of Missouri — Rolla; Thomas L. Warren, Oklahoma State University; Jacqueline Whipple Walker, University of Florida; and James H. Wilson, Santa Fe Community College.

I also thank the following instructors who contributed their insights and suggestions for the *Instructor's Resource Manual:* Josie Jordon Mills, University of Denver; Christine Mitchell, Southeastern Louisiana University; Tamara Powell, Louisiana Technical University; Cindy Raisor, Texas A&M University; Stuart Selber, Pennsylvania State University; Carol M. H. Shehadeh, Florida Institute of Technology.

I would like to acknowledge two other readers. Kevin S. Wilson of Boise State University, a gifted teacher and editor, has helped me clarify my thinking and simplify my writing in this edition, as he did in previous editions. In addition, he wrote most of the quizzes and classroom activities included on TechComm Web and in the *Instructor's Resource Manual*. The book and site are much improved due to his efforts, and I thank him. John Battalio, also of Boise State University, critiqued the new chapter on Web design, helping me make it clearer and more accurate. In my hallway conversations with John, I learn something new about tech comm and about teaching almost every day. He is an extraordinary colleague.

I have been fortunate, too, to work with a superb team at Bedford/ St. Martin's, led by Leasa Burton, a perceptive, demanding, and supportive editor who has helped me improve the text in many big and small ways. She is

responsible for the book's sharper and clearer focus on rhetoric. Anna George and Ara Salibian deserve special thanks as well for their work: Anna, for the much improved design of the text, and Ara, for expertly guiding the manuscript through production. I also want to express my appreciation to Chuck Christensen, Joan Feinberg, Elizabeth Schaaf, and John Amburg for assembling the first-class team that has worked so hard on this edition, including Sara Eaton, Jen Lesar, Denise Wydra, Arthur Johnson, and Ellen Thibault. For me, Bedford/St. Martin's continues to exemplify the highest standards of professionalism in publishing. They have been endlessly encouraging and helpful. I hope they realize the value of their contributions to this book.

I want to thank my colleagues at Boise State University — John Battalio, Jim Frost, Michael Hassett, Rick Leahy, and Theresa Hollenbeck — whose ideas and suggestions have helped me improve the text.

My greatest debt, however, is to my wife, Rita, who over the course of many months and, now, six editions, has helped me say what I mean.

A Final Word

I am more aware than ever before of how much I learn from my students, my fellow instructors, and my colleagues in industry and academia. If you have comments or suggestions for making this a better book, please get in touch with me at the Department of English at Boise State University, Boise, ID 83725. My phone number is (208) 426-3088, or you can send me an email from the Web site: www.bedfordstmartins.com/techcomm. I hope to hear from you.

Mike Markel

BRIEF CONTENTS

CONTENTS