

Fourteenth Edition

Technical Communication

John M. Lannon

|

Laura J. Gurak

New!
2016
MLA
Updates

Available with MyWritingLab™

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EDITING AND REVISION SYMBOLS

Symbol	Problem	page	Symbol	Problem	page
<i>ab</i>	wrong abbreviation	680	<i>[] /</i>	brackets	678
<i>acr</i>	unclear acronym	220	<i>() /</i>	parentheses	679
<i>agr p</i>	error in pronoun agreement	667	<i>- - /</i>	dashes	679
<i>agr sv</i>	error in subject-verb agreement	666	<i>... /</i>	ellipses	678
<i>an</i>	analogy needed	223	<i>ital</i>	italics	679
<i>av</i>	active voice needed	205	<i>- /</i>	hyphenation	680
<i>bias</i>	biased language	227	<i>pref</i>	needless preface	210
<i>ca</i>	wrong pronoun case	671	<i>prep</i>	needless preposition	212
<i>cap</i>	capital letter needed	680	<i>pv</i>	passive voice needed	207
<i>cl</i>	words add clutter	214	<i>qual</i>	needless qualifier	214
<i>comb</i>	combined sentences	215	<i>red</i>	redundant phrase	209
<i>cont</i>	faulty contraction	677	<i>ref</i>	faulty pronoun reference	203
<i>coord</i>	faulty coordination	669	<i>rep</i>	needless repetition	209
<i>cs</i>	comma splice	666	<i>ro</i>	run-on sentence	665
<i>dgl</i>	dangling modifier	667	<i>sexist</i>	sexist usage	228
<i>euph</i>	euphemism	220	<i>short</i>	short sentence needed	217
<i>frag</i>	sentence fragment	664	<i>simple</i>	simpler word needed	218
<i>it</i>	faulty “it” sentence opener	210	<i>sP</i>	misspelled word	682
<i>jarg</i>	needless jargon	219	<i>spec</i>	specific word needed	222
<i>mod</i>	misplaced modifier	204	<i>st mod</i>	stacked modifying nouns	204
<i>neg</i>	negative phrasing	213	<i>sub</i>	faulty subordination	670
<i>nom</i>	nominalization	212	<i>th</i>	faulty “there” sent. opener	210
<i>offen</i>	offensive language	229	<i>tone</i>	inappropriate tone	223
<i>os</i>	overstuffed sentence	208	<i>trans</i>	transition needed	685
<i>over</i>	overstatement	221	<i>trite</i>	overused expression	220
<i>par</i>	faulty parallelism	668	<i>ts</i>	faulty topic sentence	194
<i>pct</i>	faulty punctuation	671	<i>var</i>	sentence variety needed	217
<i>. /</i>	period	672	<i>w</i>	wordiness	209
<i>? /</i>	question mark	672	<i>wo</i>	faulty word order	204
<i>! /</i>	exclamation point	672	<i>wv</i>	weak verb	211
<i>;/</i>	semicolon	672	<i>ww</i>	wrong word	221
<i>: /</i>	colon	673	<i>#</i>	faulty numbering	681
<i>, /</i>	comma	673	<i>¶</i>	new paragraph needed	193
<i>ap /</i>	apostrophe	676	<i>¶ coh</i>	paragraph lacks coherence	195
<i>"/</i>	quotation marks	677	<i>¶ lngth</i>	paragraph too long or short	196
			<i>¶ un</i>	paragraph lacks unity	195



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MyWritingLab™ : Now Available for Technical Communication

MyWritingLab is an online homework, tutorial, and assessment program that provides engaging experiences for today's instructors and students.

Writing Help for Varying Skill Levels

For students who enter the course at widely varying skill levels, MyWritingLab provides unique, targeted remediation through personalized and adaptive instruction. Starting with a pre-assessment known as the Path Builder, MyWritingLab diagnoses students' strengths and weaknesses on prerequisite writing skills. The results of the pre-assessment inform each student's Learning Path, a personalized pathway for students to work on requisite skills through multimodal activities. In doing so, students feel supported and ready to succeed in class.

Respond to Student Writing with Targeted Feedback and Remediation

MyWritingLab unites instructor comments and feedback with targeted remediation via rich multimedia activities, allowing students to learn from and through their own writing.

- When giving feedback on student writing, instructors can add links to activities that address issues and strategies needed for review. Instructors may also link to multimedia resources in Pearson Writer, which include curated content from Purdue OWL.
- In the Writing Assignments, students can use instructor-created peer review rubrics to evaluate and comment on other students' writing.

NEW! Learning Tools for Student Engagement

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FOURTEENTH EDITION

Technical Communication

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Preface

Whether digital, face-to-face, handwritten, or printed, workplace communication is more than a value-neutral exercise in “information transfer”: it is a complex social transaction. From reports to proposals, job applications to email messages, video chats to oral presentations, every rhetorical situation has its own specific interpersonal, ethical, legal, and cultural demands. Moreover, today’s workplace professional needs to be a skilled communicator and a discriminating consumer of information, skilled in methods of inquiry, retrieval, evaluation, and interpretation essential to informed decision making.

Designed in response to these issues, *Technical Communication*, Fourteenth Edition, addresses a wide range of interests for classes in which students from a variety of majors are enrolled. The text explains, illustrates, and applies rhetorical principles to an array of assignments—from memos, résumés, and email to formal reports and proposals. To help students develop awareness of audience and accountability, exercises incorporate the problem-solving demands typical in college and on the job. Self-contained chapters allow for various course plans and customized assignments.

WHAT’S NEW IN THIS EDITION?

Technical Communication, Fourteenth Edition, has been thoroughly revised to account for the latest innovations in workplace communication and today’s technologically sophisticated, diverse, and global workforce. Students will benefit from a variety of new content and features in this edition:

- **Revised Learning Objectives, now correlated with the main headed sections of each chapter**, help students to track their understanding of key chapter topics as they work through each chapter.
- **Updated coverage of digital communication appears throughout the book**, including such topics as ethics and digital communication, plagiarism and the Internet, collaborative writing spaces, digital writing technologies, subject directories and search engines, using Facebook and Twitter, evaluating online sources, storyboarding Web pages, digital design and using templates, online instructions and online help, email, PDF attachments, e-portfolios, presentation software, video conferencing, internal and external blogs and wikis, Web pages, and writing for social media.
- **New sample documents throughout the text** provide updated models of effective technical documents, such as questionnaire cover emails,

summaries, visuals, technical descriptions, brochures, Web-based and wordless instructions, online help screens, progress reports, blog pages, Web pages, and social media sites.

- **Updated usability coverage reflects current approaches to the user experience (UX)**, especially in relation to instructional documents.
- **A fully-revised chapter on email and text messages** includes updated coverage of email parts and format, audience and purpose of workplace email, email style and tone, determining if email is the best choice for the situation, and ethical and legal issues when using email.
- **A newly-combined chapter on memos and letters** offers complete coverage of the basics of and types of memos and letters but also speaks to the ever-increasing use of email as the primary avenue for workplace communication today and features updated coverage of memos and letters sent as PDF attachments.
- **A substantially revised chapter on the job search** provides updated coverage of digital job search techniques, including more on using templates to create résumés and application letters, sending and posting résumés and application letters online, and creating an e-portfolio.
- **A newly-combined chapter on blogs, wikis, and Web pages** moves the discussion of internal and external blogs and wikis out of the context of social media and into the context of writing and designing for the Web.
- **An expanded chapter on social media** includes new coverage of social media ethics and policy, and expanded coverage of the workplace uses of Yelp! and other customer review sites; Facebook, Google+, LinkedIn, and other job sites; Twitter; and YouTube.

HALLMARKS OF TECHNICAL COMMUNICATION

Technical Communication, Fourteenth Edition, retains—and enhances or expands—the features that have made it a best-selling text for technical communication over thirteen editions. These include the following:

- **Complete coverage for any course in technical communication, business communication, or professional writing.** The topics move from basic foundational concepts to chapters on research, organization, style, visual characteristics, and document design, and finally to specific documents and applications. The appendix includes thorough coverage of MLA and APA documentation styles, and a handbook of grammar, mechanics, and usage.
- **A reader-friendly writing style that presents all topics clearly and concisely.** Simple, straightforward explanations of concepts and audience/

purpose analyses of specific document types help differentiate technical communication from academic writing.

- **The most current and thorough coverage of workplace technologies, ethics, and global considerations in the workplace.** Always prominent in the book, these three topics have been updated and expanded throughout to keep up with the changes in the contemporary workplace.
- **Strong coverage of information literacy.** According to the American Library Association Presidential Committee on Information Literacy, information-literate people “know how knowledge is organized, how to find information, and how to use information in such a way that others can learn from them.” Critical thinking—the basis of information literacy—is covered intensively in Part II and integrated throughout the text.
- **A focus on applications beyond the classroom.** Clear ties to the workplace have always been a primary feature of this book. This edition includes examples from everyday on-the-job situations and sample documents, as well as dedicated chapters on ethics, teamwork, and global issues. Each chapter opener includes a quote from an on-the-job communicator.
- **Emphasis on the humanistic aspects of technical communication.** Technical communication is ultimately a humanistic endeavor, with broad societal impact—not just a set of job-related transcription tasks. Accordingly, situations and sample documents in this edition address complex technical and societal issues such as global warming, public health issues, environmental and energy topics, digital technology, and genomics.
- **Plentiful model documents and other useful figures throughout the book.** Descriptions and instructions for creating technical documents are accompanied by clear, annotated examples. Graphic illustrations throughout make abstract concepts easy to understand.
- **Highly praised pedagogical features.** Pedagogical features, including chapter-opening Learning Objectives, summary Guidelines boxes, real-world Consider This boxes, Case Studies, annotated figures, summary marginal notes, and end-of-chapter Checklists and Projects reinforce chapter topics. These features are outlined in more detail below.

HOW THIS BOOK IS ORGANIZED

Technical Communication is designed to allow instructors maximum flexibility. Each chapter is self-contained, and each part focuses on a crucial aspect of the communication process. Following are the five major parts of the book:

- **Part I: Communicating in the Workplace** treats job-related communication as a problem-solving process. Students learn to think critically about the

informative, persuasive, and ethical dimensions of their communications. They also learn how to adapt to the interpersonal challenges of collaborative work, and to address the various needs and expectations of global audiences.

- **Part II: The Research Process** treats research as a deliberate inquiry process. Students learn to formulate significant research questions; to explore primary and secondary sources in hard copy and electronic form; to evaluate and interpret their findings; and to summarize for economy, accuracy, and emphasis.
- **Part III: Organization, Style, and Visual Design** offers strategies for organizing, composing, and designing messages that readers can follow and understand. Students learn to control their material and develop a readable style. They also learn about the rhetorical implications of graphics and page design—specifically, how to enhance a document’s access, appeal, and visual impact for audiences who need to locate, understand, and use the information successfully.
- **Part IV: Specific Documents and Applications** applies earlier concepts and strategies to the preparation of print and electronic documents and oral presentations. Various letters, memos, reports, and proposals offer a balance of examples from the workplace and from student writing. Each sample document has been chosen so that students can emulate it easily. Chapters on email and text messaging, Web pages, and social media emphasize the important role of digital communication in today’s workplace.
- **Part V: Resources for Writers** includes “A Quick Guide to Documentation,” which provides general guidance as well as specific style guides and citation models for MLA and APA styles, and “A Quick Guide to Grammar, Usage, and Mechanics,” which provides a handy resource for answering questions about the basic building blocks of writing.

LEARNING ENHANCEMENT FEATURES

This book is written and designed to be a highly accessible document, so that readers can “read to learn and learn to do.” *Technical Communication*, Fourteenth Edition, includes the following learning enhancement features that will help students access the material easily and use the ideas to become effective technical communicators:

- **Chapter opening quotations** demonstrate the real-world applications of each chapter’s topic.
- **Learning Objectives** at the beginning of each chapter tie in with the main headed sections of each chapter and provide a set of learning goals for students to fulfill.

- **Guidelines boxes** help students prepare specific documents by synthesizing the chapter's information.
- **Cases and sample situations** encourage students to make appropriate choices as they analyze their audience and purpose and then compose their document.
- **Sample documents** model various kinds of technical writing, illustrating for students what they need to do. Captions and annotations identify key features in sample documents.
- **Consider This boxes** provide interesting and topical applications of the important issues discussed in various chapters, such as collaboration, technology, and ethics.
- **Notes callouts** clarify up-to-the-minute business and technological advances and underscore important advice.
- **Marginal notes** summarize larger chunks of information to reinforce key chapter concepts.
- **Checklists** promote careful editing, revision, and collaboration. Students polish their writing by reviewing key criteria for the document and by referring to cross-referenced pages in the text for more information on each point.
- **General, team, global, and digital and social media Projects** at each chapter's end help students apply what they have learned.

INSTRUCTIONAL SUPPLEMENTS

A wide array of supplements for both instructors and students accompany *Technical Communication*, Fourteenth Edition:

For Instructors

- **Instructor's Manual, by Lee Scholder, M.S., J.D.** Available online, the Instructor's Manual includes general and chapter-by-chapter teaching tips, additional chapter exercises, quizzes, and sample syllabi. In addition, it provides guidance on using MyWritingLab as an online resource for courses. Contact your local Pearson representative for details.
- **MyTest.** Pearson MyTest is a powerful assessment-generation program that helps instructors easily create and print quizzes, study guides, and exams. Questions and tests are authored online, allowing instructors ultimate flexibility and the ability to efficiently manage assessments anytime, anywhere. To access MyTest, go to <www.pearsonhighered.com/mytest/>, log on, and follow the instructions. You must first be registered. The test questions for

Technical Communication, Fourteenth Edition, are also available to instructors as a downloadable PDF on the Resources tab of the catalog page at www.pearsonhighered.com.

- **PowerPoint Slides.** Fully revised to accompany the fourteenth edition, the PowerPoint presentations provide a wealth of chapter-by-chapter slides that can be projected or printed to enhance in-class instruction or simply used for review and class planning.

For Students

Pearson eText gives students access to *Technical Communication* whenever and wherever they can access the Internet. The eText pages look exactly like the printed text, and include powerful interactive and customization functions. Users can create notes, highlight text in different colors, create bookmarks, zoom, click hyperlinked words and phrases to view definitions, and view as a single page or as two pages. The eText also offers a full-text search and the ability to save and export notes.

The Pearson eText app is a great companion to Pearson's eText browser-based book reader. It allows existing subscribers who view their Pearson eText titles on a Mac or PC to additionally access their titles in a bookshelf on the iPad or an Android tablet either online or via download.

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— **John M. Lannon and Laura J. Gurak**

PART

1

Communicating in the Workplace

- 1 Introduction to Technical Communication
- 2 Meeting the Needs of Specific Audiences
- 3 Persuading Your Audience
- 4 Weighing the Ethical Issues
- 5 Teamwork and Global Considerations
- 6 An Overview of the Technical Writing Process

1

Introduction to Technical Communication

What Is Technical Communication?

Technical Communication Is a Digital *and* a Human Activity

Technical Communication Reaches a Global Audience

Technical Communication Is Part of Most Careers

Technical Communicators Play Many Roles

Main Features of Technical Communication

Purposes of Technical Communication

Preparing Effective Technical Documents

Projects



“Writing is essential to my work. Everything we do at my company results in a written product of some kind—a formal technical report, a summary of key findings, recommendations and submissions to academic journals or professional associations. We also write proposals to help secure new contracts. Writing is the most important skill we seek in potential employees and nurture and reward in current employees. It is very hard to find people with strong writing skills, regardless of their academic background.”

—Paul Harder, President,
mid-sized consulting firm

LEARNING OBJECTIVES FOR THIS CHAPTER

- ▶ Define technical communication
- ▶ Recognize the digital and human sides of technical communication
- ▶ Understand that technical communication has a global reach
- ▶ Appreciate the role of technical communication in most careers
- ▶ Know what technical communicators do
- ▶ Identify the main features of technical communication
- ▶ Explain the purposes of technical communication
- ▶ Describe the four tasks involved in preparing effective technical documents

WHAT IS TECHNICAL COMMUNICATION?

▶ Define technical communication

Technical communication is the exchange of information that helps people interact with technology and solve complex problems. Almost every day, we make decisions or take actions that depend on technical information. When we install any new device, from a microwave oven to a new printer, it's the setup information that we look for as soon as we open the box. Before we opt for the latest high-tech medical treatment, we learn all we can about its benefits and risks. From banking systems to online courses to business negotiations, countless aspects of daily life are affected by technology. To interact with technology in so many ways, we need information that is not only technically accurate but also easy to understand and use.

Technical communication serves various needs in various settings. People may need to perform a task (say, assemble a new exercise machine), answer a question (say, about the safety of a flu shot), or make a decision (say, about suspending offshore oil drilling). In the workplace, we are not only consumers of technical communication, but producers as well. Any document or presentation we prepare (memo, letter, report, Web page, PowerPoint) must advance the goals of our readers, viewers, or listeners.

Figure 1.1 shows a sampling of the kinds of technical communication you might encounter or prepare, either on the job or in the community.

Technical communication helps us interact with technology in our daily lives

Technical communication helps us solve complex problems

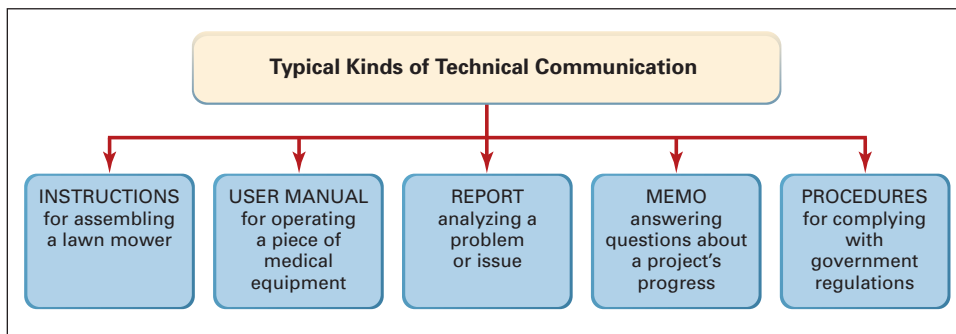


FIGURE 1.1
Technical Communication Serves Various Needs

TECHNICAL COMMUNICATION IS A DIGITAL AND A HUMAN ACTIVITY

► Recognize the digital and human sides of technical communication

Digital communication requires attention to style and tone

In today's workplace, we communicate more than ever, especially via email, texting, video conferencing, and social networks. Digital technology makes it easy to bring people together, especially across different time zones or work schedules. Yet online, we communicate with such speed that we often forget about basic professional standards for workplace communication. For instance, the informal or even humorous tone we use to text our friends is typically not appropriate for a work-related email. An unclear or inaccurate email could easily cause a safety error or legal problem; an inappropriate tone might result in wasted hours resolving an interpersonal situation instead of working on the project.

Online research is not the same as critical thinking

Digital technology also provides plenty of ways, from simple to sophisticated, to research and find information. Just conducting an Internet search, however, is not a substitute for critical thinking skills. The big questions involved in most workplace projects are questions that require us to take our research findings and make the information meaningful by asking questions such as these:

Questions that only a person can answer

- Which information is relevant to this situation?
- Can I verify the accuracy of this source?
- What does this information mean?
- What action does it suggest?
- How does this information affect me or my colleagues?
- With whom should I share it?
- How might others interpret this information?

TECHNICAL COMMUNICATION REACHES A GLOBAL AUDIENCE

► Understand that technical communication has a global reach

Write to a diverse audience

Electronically linked, our global community shares social, political, and financial interests. Corporations are increasingly multinational, and diverse cultures exist within individual nations. To connect with all readers, technical documents need to reflect global and intercultural diversity. In his article, "Culture and Communication," Robert G. Hein defines culture and its impact on communication:

How cultures shape communication styles

Our accumulated knowledge and experiences, beliefs and values, attitudes and roles—in other words, our cultures—shape us as individuals and differentiate us as a people. Our cultures, inbred through family life, religious training, and educational

and work experiences ... manifest themselves ... in our thoughts and feelings, our actions and reactions, and our views of the world.

Most important for communicators, our cultures manifest themselves in our information needs and our styles of communication ... our expectations as to how information should be organized, what should be included in its content, and how it should be expressed. (125)

Cultures differ over which behaviors seem appropriate for social interaction, business relationships, contract negotiation, and communication practices. An effective communication style in one culture may be offensive elsewhere. For example, one survey of top international executives reveals the following attitudes toward U.S. communication style (Wandycz 22–23):

- Latin America: “Americans are too straightforward, too direct.”
- Eastern Europe: “An imperial tone ... It’s always about how [Americans] know best.”
- Southeast Asia: “To get my respect, American business [people] should know something about [our culture]. But they don’t.”
- Western Europe: “Americans miss the small points.”
- Central Europe: “Americans tend to oversell themselves.”

How various cultures view U.S. communication style

In addition to being broadly accessible, any document prepared for a global audience must reflect sensitivity to cultural differences. For more on cross-cultural communication, see Chapters 3 and 5.

TECHNICAL COMMUNICATION IS PART OF MOST CAREERS

► Appreciate the role of technical communication in most careers

Whatever your job description, expect to be evaluated, at least in part, on your communication skills. At one IBM subsidiary, for example, 25 percent of an employee’s evaluation is based on how effectively that person shares information (Davenport 99). Even if you don’t anticipate a “writing” career, expect to be a part-time technical communicator, who will routinely face situations such as these:

- As a medical professional, psychologist, social worker, or accountant, you will keep precise records that are, increasingly, a basis for legal action.
- As a scientist, you will report on your research and explain its significance.
- As a manager, you will write memos, personnel evaluations, and inspection reports; you will also give oral presentations.
- As a lab or service technician, you will keep daily activity records and help train coworkers in installing, using, or servicing equipment.

Most professionals serve as part-time technical communicators

- As an attorney, you will research and interpret the law for clients.
- As an engineer or architect, you will collaborate with colleagues as well as experts in related fields before presenting a proposal to your client. (For example, an architect's plans are reviewed by a structural engineer who certifies that the design is sound.)
- As an employee or intern in the nonprofit sector (an environmental group or a government agency), you will research important topics and write brochures, press releases, or handbooks for clients.

The more you advance in your field, the more you will need to share information and establish contacts. Managers and executives spend much of their time negotiating, setting policies, and promoting their ideas—often among diverse cultures around the globe.

In addition, most people can expect to work for several different employers throughout their career. Each employer will have questions such as the following:

Employers seek portable skills

- Can you write and speak effectively?
- Can you research information, verify its accuracy, figure out what it means, and shape it for the reader's specific purposes?
- Can you work on a team, with people from diverse backgrounds?
- Can you get along with, listen to, and motivate others?
- Are you flexible enough to adapt to rapid changes in business conditions and technology?
- Can you market yourself and your ideas persuasively?
- Are you ready to pursue lifelong learning and constant improvement?

These are among the portable skills employers seek in today's college graduates—skills all related to communication.

TECHNICAL COMMUNICATORS PLAY MANY ROLES

► Know what technical communicators do

What technical communicators do

Full-time technical communicators serve many roles. Trade and professional organizations employ technical communicators to produce newsletters, pamphlets, journals, and public relations material. Many work in business and industry, preparing instructional material, reports, proposals, and scripts for industrial films. They also prepare sales literature, publicity releases, handbooks, catalogs, brochures, Web pages, intranet content, articles, speeches, and oral and multimedia presentations.

Related career paths

Technical communicators also do other work. For example, they edit reports for punctuation, grammar, style, and logical organization. They may also oversee publishing projects, coordinating the efforts of writers, visual artists, graphic designers,

content experts, and lawyers to produce a complex manual or proposal. Given their broad range of skills, technical communicators often enter related fields such as publishing, magazine editing, Web site management, television, and college teaching.

MAIN FEATURES OF TECHNICAL COMMUNICATION

► Identify the main features of technical communication

Almost any form of technical communication displays certain shared features: The communication is reader-centered, accessible and efficient, often produced by teams, and delivered in both paper and digital versions.

Reader-Centered

Unlike poetry, fiction, or college essays, a technical document rarely focuses on the writer's personal thoughts and feelings. This doesn't mean that your document should have no personality (or voice), but it does mean that the needs of your readers come first.

Workplace readers typically are interested in “who you are” only to the extent that they want to know what you have done, what you recommend, or how you speak for your company. Reader-centered documents focus on what people need to learn, do, or decide.

Focus on the reader, not the writer

What readers expect

Accessible and Efficient


Readers expect to find the information they need and to have questions answered clearly. For instance, the document shown in Figure 1.2 (see page 8) is written and designed so that a nontechnical audience can find and follow the information. Instead of long technical passages, the content is presented in short chunks, answering the main question readers will ask (how to choose the right model).

An accessible and efficient technical document includes elements such as those displayed in Figure 1.2 as well as others listed below.

Make documents easy to navigate and understand

- **worthwhile content**—includes all (and only) the information readers need
- **sensible organization**—guides the reader and emphasizes important material
- **readable style**—promotes fluid reading and accurate understanding
- **effective visuals**—clarify concepts and relationships, and substitute for words whenever possible
- **effective page design**—provides heads, lists, type styles, white space, and other aids to navigation
- **supplements (abstract, appendix, glossary, linked pages, and so on)**—allow readers to focus on the specific parts of a long document that are relevant to their purpose

Elements that make a document accessible and efficient



Use a Programmable Thermostat Properly

A programmable thermostat is ideal for people who are away from home during set periods of time throughout the week. Through proper use of pre-programmed settings, a programmable thermostat can save you about \$180 every year in energy costs.

How Do You Choose the Right One for You?

To decide which model is best for you, think about your schedule and how often you are away from home for regular periods of time—work, school, other activities—and then decide which of the three different models best fits your schedule:

7-day models are best if your daily schedule tends to change; for example, if children are at home earlier on some days. These models give you the most flexibility and let you set different programs for different days—usually with four possible temperature periods per day.

5+2-day models use the same schedule every weekday, and another for weekends.

5-1-1 models are best if you tend to keep one schedule Monday through Friday and another schedule on Saturdays and Sundays.

Programmable Thermostat Settings

You can use the table below as a starting point for setting energy-saving temperatures, and then adjust the settings to fit your family's schedule and stay comfortable.

Setting	Time	Setpoint Temperature (Heat)	Setpoint Temperature (Cool)
Wake	6:00 a.m.	< 70° F	> 78° F
Day	8:00 a.m.	Setback at least 8° F	Setup at least 7° F
Evening	6:00 p.m.	< 70° F	> 78° F
Sleep	10:00 p.m.	Setback at least 8° F	Setup at least 4° F

Annotations on the right side of the page:

- Overview information summarizes the document's main point
- Heading is phrased as the main question readers will ask
- Paragraphs and sentences are short
- Color is used to highlight key items
- Table provides easy-to-read comparative data

FIGURE 1.2 An Effective Technical Document Language, layout, and PDF format make the information easy for everyday readers to understand and access.

Source: A Guide to Energy-Efficient Heating and Cooling, Energy Star Program, August 2009.

Accessible, efficient communication is no mere abstract notion: In the event of a lawsuit, faulty writing is treated like any other faulty product. If your inaccurate, unclear, or incomplete information leads to injury, damage, or loss, you and your company or organization can be held responsible.

Recognize your legal accountability

NOTE *Make sure your message is clear and straightforward—but do not oversimplify. Information designer Nathan Shedroff reminds us that, while clarity makes information easier to understand, simplicity is “often responsible for the ‘dumbing down’ of information rather than the illumination of it” (280). The “sound bytes” that often masquerade as network news reports serve as a good case in point.*

Often Produced by Teams

Technical documents are often complex. Instead of being produced by a lone writer, complex documents usually are created by teams composed of writers, Web designers, engineers or scientists, managers, legal experts, and other professionals. The teams might be situated at one site or location or distributed across different job sites, time zones, and countries.

Prepare for teamwork

Delivered in Paper and Digital Versions

Technical documents can be delivered in a variety of media such as print (hard copy), CDs, Web pages, PDF documents, ebooks, podcasts, and online videos. In many cases, distinctions between print and digital communication are becoming blurred. Figure 1.2 is a good example: The document is in PDF format and can be read on the Web, downloaded to a computer, phone, or tablet for future reading, or printed on paper. Technical communicators must write well but must also be able to think about page design and media choices.

Select the appropriate medium or combination of media

PURPOSES OF TECHNICAL COMMUNICATION

► Explain the purposes of technical communication

Most forms of technical communication address one of three primary purposes: (1) to anticipate and answer questions (inform your readers); (2) to enable people to perform a task or follow a procedure (instruct your readers); or (3) to influence people’s thinking (persuade your readers). Often, as in Figure 1.2, these purposes will overlap.

What purpose or combination of purposes will your document serve?

Documents that Inform

Informational documents are designed to inform—to provide information that answers readers’ questions clearly and efficiently. Figure 1.2 is primarily informational. It is designed for a wide audience of readers who may have questions but know little about the technical details.

Anticipate and answer your readers’ questions