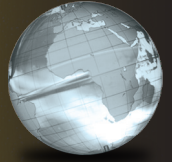


GLOBAL  
EDITION



# Technical Communication

FIFTEENTH EDITION



John M. Lannon

Laura J. Gurak



# List of Sample Documents and Forms

- Fig. 1.2 Effective Technical Document 35
- Fig. 2.3 Technical Version of an Emergency Treatment Report 47
- Fig. 2.4 Semitechnical Version of Figure 2.3 48
- Fig. 2.5 Nontechnical Version of Figure 2.3 49
- Fig. 2.6 Web Page Designed for Multiple Audiences 52
- Fig. 2.7 Audience and Use Profile 55
- Fig. 3.4 Persuasive Letter 79
- Fig. 4.6 Examples of Plagiarism 97
- Fig. 4.7 Sample Code of Ethics 101
- Fig. 5.1 Planning Form for a Collaborative Project 107
- Fig. 5.2 Document Edited Using Track Changes 116
- Fig. 5.3 Inappropriate Email for a Global Audience 121
- Fig. 6.4 Final Edited Version of a Report 136
- Fig. 7.5 Text of an Informational Interview 161
- Fig. 7.6 Cover Email for a Questionnaire 164
- Fig. 7.7 Questionnaire 165
- Fig. 9.3 Article to Be Summarized 197
- Fig. 9.4 Summary of Figure 9.3 198
- Fig. 9.6 Executive Summary 201
- Fig. 10.1 Document with a Standard Structure 209
- Fig. 10.2 Document with a Nonstandard Structure 210
- Fig. 10.3 Formal Outline 212
- Fig. 10.4 Module from a Storyboard 215
- Fig. 12.2 Planning Sheet for Preparing Visuals 268
- Fig. 13.1 Ineffective Page Design 310
- Fig. 13.2 Effective Page Design 311
- Fig. 14.1 Primary Email 336
- Fig. 14.2 Transmittal Email 337
- Fig. 14.3 Formatted Email 338
- Fig. 14.4 Unprofessional Email 341
- Fig. 14.5 Email to External Customers 344
- Fig. 14.6 Email for a Global Audience 346
- Fig. 15.2 Typical Memo 356
- Fig. 15.3 Transmittal Memo 360
- Fig. 15.4 Summary or Follow-up Memo 361
- Fig. 15.5 Routine Miscellaneous Memo 363
- Fig. 15.6 Standard Workplace Letter 366
- Fig. 15.8 Bad News Letter 377
- Fig. 15.9 Unsolicited Inquiry Letter 379
- Fig. 15.10 Request for an Informative Interview 380
- Fig. 15.11 Routine Claim Letter 382
- Fig. 15.12 Arguable Claim Letter 383
- Fig. 15.13 Sales Letter 385
- Fig. 15.14 Positive Adjustment Letter 387
- Fig. 15.15 Negative Adjustment Letter 388
- Fig. 16.2 Reverse Chronological Résumé 398
- Fig. 16.3 Functional Résumé 401
- Fig. 16.4 Solicited Application Letter 403
- Fig. 16.5 Unsolicited Application Letter 406
- Fig. 16.6 Scannable Résumé 407
- Fig. 16.7 E-Portfolio 410
- Fig. 17.1 Effective Definition 423
- Fig. 17.3 Expanded Definition (Semitechnical) 430
- Fig. 17.4 Expanded Definition (Nontechnical) 432
- Fig. 18.2 Product Description 445
- Fig. 18.3 Process Description 446
- Fig. 18.4 Complex Product Description (Nontechnical) 447
- Fig. 18.5 Complex Process Description (Nontechnical) 450
- Fig. 18.6 Specifications for a Building Project 455
- Fig. 18.7 Page from a Fact Sheet 458
- Fig. 19.1 Table of Contents from a User Manual 466
- Fig. 19.2 Brief Reference Card 466
- Fig. 19.3 Web-Based Instructions 467
- Fig. 19.4 Wordless Instructions 470
- Fig. 19.6 Adequate Detail for Laypersons 473
- Fig. 19.7 Complete Set of Instructions 481
- Fig. 19.8 Online Help Screen 484
- Fig. 19.9 Safety Procedures 486
- Fig. 19.10 Standard Operating Procedure 487
- Fig. 19.11 Usability Survey 489
- Fig. 20.1 Progress Report on the Job 498

**Fig. 20.2** Progress Report on Term Project 499  
**Fig. 20.3** Periodic Activity Report 501  
**Fig. 20.4** Trip Report 502  
**Fig. 20.5** Meeting Minutes 504  
**Fig. 20.6** Feasibility Report 507  
**Fig. 20.7** Recommendation Report 509  
**Fig. 20.8** Justification Report 511  
**Fig. 20.9** Peer Review Report 513  
**Fig. 21.1** Summary of Feasibility Study 522  
**Fig. 21.3** Formal Analytical Report 541  
**Fig. 22.1** Planning Proposal 563

**Fig. 22.2** Research Proposal 564  
**Fig. 22.3** Sales Proposal 567  
**Fig. 22.4** Formal Proposal 579  
**Fig. 23.1** Planning Sheet for Oral Presentation 596  
**Fig. 23.2** Partial Storyboard 605  
**Fig. 23.4** PowerPoint Presentation 610  
**Fig. 24.1** Interactive Web Page 624  
**Fig. 24.2** User-Friendly Web Page 628  
**Fig. 25.1** Sample Social Media Policy 641  
**Fig. 25.3** Twitter Feed 645

# A Topical List of the GUIDELINES Boxes

<b>General Skills</b>		
Analyzing Your Audience and Its Use of the Document	54	378
Persuasion	76	381
Ethical Communication	102	384
Proofreading	139	386
		389
<b>Teamwork</b>		
Managing a Collaborative Project	108	
Running a Meeting	111	
Active Listening	114	
Peer Review and Editing	118	
Communicating on a Global Team	122	
<b>Research and Avoiding Plagiarism</b>		
Researching on the Web and with Social Media	159	
Informational Interviews	162	
Surveys	166	
Evaluating and Interpreting Information	187	
Summarizing Information	198	
Taking Notes	653	
Quoting	654	
Paraphrasing	656	
<b>Organization and Style</b>		
Outlining	213	
Deciding about Tone	250	
Avoiding Biased Language	255	
<b>Visuals</b>		
Creating Tables and Graphs	279	
Creating Charts	285	
Creating Graphic Illustrations	293	
Incorporating Color	297	
Presenting Visuals	299	
Obtaining and Citing Visual Material	302	
<b>Document Design</b>		
Shaping the Page	318	
Styling the Words and Letters	321	
Adding Emphasis	322	
Using Headings	325	
<b>Memos, Email, Text Messages, and Letters</b>		
Writing and Using Email	346	
Memos	361	
Letters in General	375	
Conveying Bad News		378
Inquiry Letters		381
Claim Letters		384
Sales Letters		386
Adjustment Letters		389
<b>Getting a Job</b>		
Writing and Designing Your Résumé		400
Application Letters		404
Online Job Applications		408
Dossiers, Portfolios, and E-portfolios		411
Interviews and Follow-Up Communication		414
<b>Reports and Proposals</b>		
Progress Reports		500
Periodic Activity Reports		500
Trip Reports		503
Meeting Minutes		505
Feasibility Reports		506
Recommendation Reports		508
Justification Reports		510
Peer Review Reports		512
Reasoning through an Analytical Problem		553
Proposals		589
<b>Other Documents</b>		
Definitions		435
Descriptions		453
Specifications		456
Technical Marketing Materials		459
Providing Appropriate Detail in Instructions		474
Designing Instructions		478
<b>Oral Presentations</b>		
Using Presentation Software		611
Delivering Oral Presentations and Managing Listener Questions		617
Video Conferencing		619
<b>Web Pages and Social Media</b>		
Writing and Using Blogs and Wikis		627
Writing Web Pages		630
Designing Web Pages		631
Global, Ethical, and Legal Considerations on the Web		634
Creating Instructional Videos for Social Media		647
Writing and Using Social Media		649

# A Guide to the CHECKLISTS

<b>Checklist</b> Analyzing Audience and Purpose	57
<b>Checklist</b> Persuasion	82
<b>Checklist</b> Ethical Communication	103
<b>Checklist</b> Teamwork and Global Considerations	123
<b>Checklist</b> Proofreading	140
<b>Checklist</b> The Research Process	188
<b>Checklist</b> Summaries	203
<b>Checklist</b> Organizing Information	221
<b>Checklist</b> Style	258
<b>Checklist</b> Visuals	303
<b>Checklist</b> Page Design	330
<b>Checklist</b> Email	348
<b>Checklist</b> Memos	362
<b>Checklist</b> Letters	389
<b>Checklist</b> Résumés	415
<b>Checklist</b> Application Letters	416
<b>Checklist</b> Supporting Materials	417
<b>Checklist</b> Definitions	435
<b>Checklist</b> Technical Descriptions	459
<b>Checklist</b> Specifications	460
<b>Checklist</b> Technical Marketing Materials	461
<b>Checklist</b> Instructions and Procedures	491
<b>Checklist</b> Informal Reports	512
<b>Checklist</b> Analytical Reports	554
<b>Checklist</b> Proposals	590
<b>Checklist</b> Oral Presentations	619
<b>Checklist</b> Writing and Designing for Blogs, Wikis, and the Web	635
<b>Checklist</b> Social Media	650

# Technical Communication

**Fifteenth Edition**

**Global Edition**

**John M. Lannon**

*University of Massachusetts, Dartmouth*

**Laura J. Gurak**

*University of Minnesota*



**Pearson**

---

Harlow, England • London • New York • Boston • San Francisco • Toronto • Sydney • Dubai • Singapore • Hong Kong  
Tokyo • Seoul • Taipei • New Delhi • Cape Town • Sao Paulo • Mexico City • Madrid • Amsterdam • Munich • Paris • Milan

Pearson Education Limited  
KAO Two  
KAO Park  
Hockham Way  
Harlow  
Essex  
CM17 9SR  
United Kingdom

and Associated Companies throughout the world

Visit us on the World Wide Web at: [www.pearsonglobaleditions.com](http://www.pearsonglobaleditions.com)

© John Michael Lannon, 2022

The rights of John Michael Lannon to be identified as the author of this work have been asserted by them in accordance with the Copyright, Designs and Patents Act 1988.

Authorized adaptation from the United States edition, entitled *Technical Communication*, 15th Edition, ISBN 978-0-13-520322-4 by John M. Lannon and Laura J. Gurak, published by Pearson Education © 2020.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without either the prior written permission of the publisher or a license permitting restricted copying in the United Kingdom issued by the Copyright Licensing Agency Ltd, Saffron House, 6–10 Kirby Street, London EC1N 8TS. This publication is protected by copyright, and permission should be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise. For information regarding permissions, request forms, and the appropriate contacts within the Pearson Education Global Rights and Permissions department, please visit [www.pearsoned.com/permissions/](http://www.pearsoned.com/permissions/).

All trademarks used herein are the property of their respective owners. The use of any trademark in this text does not vest in the author or publisher any trademark ownership rights in such trademarks, nor does the use of such trademarks imply any affiliation with or endorsement of this book by such owners.

This eBook is a standalone product and may or may not include all assets that were part of the print version. It also does not provide access to other Pearson digital products like MyLab and Mastering. The publisher reserves the right to remove any material in this eBook at any time.

**British Library Cataloguing-in-Publication Data**

A catalogue record for this book is available from the British Library

**ISBN 10:** 1-292-36359-2

**ISBN 13:** 978-1-292-36359-2

**eBook ISBN 13:** 978-1-292-36364-6

Typeset in Palatino LT Pro 9.5 by Integra Software Services Pvt. Ltd.  
eBook formatted by B2R Technologies Pvt. Ltd.

# Brief Contents

<b>Part 1</b> Communicating in the Workplace	27	<b>Part 3</b> Organization, Style, and Visual Design	205
<b>1</b> Introduction to Technical Communication	28	<b>10</b> Organizing for Readers	206
<b>2</b> Meeting the Needs of Specific Audiences	42	<b>11</b> Editing for a Professional Style and Tone	224
<b>3</b> Persuading Your Audience	59	<b>12</b> Designing Visual Information	261
<b>4</b> Weighing the Ethical Issues	84	<b>13</b> Designing Pages and Documents	307
<b>5</b> Teamwork and Global Considerations	105	<b>Part 4</b> Specific Documents and Applications	333
<b>6</b> An Overview of the Technical Writing Process	126	<b>14</b> Email	334
<b>Part 2</b> The Research Process	143	<b>15</b> Workplace Memos and Letters	351
<b>7</b> Thinking Critically about the Research Process	144	<b>16</b> Résumés and Other Job-Search Materials	392
<b>8</b> Evaluating and Interpreting Information	171	<b>17</b> Technical Definitions	419
<b>9</b> Summarizing Research Findings and Other Information	191	<b>18</b> Technical Descriptions, Specifications, and Marketing Materials	438
		<b>19</b> Instructions and Procedures	463



<b>20</b>	Informal Reports	494
<b>21</b>	Formal Analytical Reports	515
<b>22</b>	Proposals	557
<b>23</b>	Oral Presentations and Video Conferencing	592
<b>24</b>	Blogs, Wikis, and Web Pages	622
<b>25</b>	Social Media	638

<b>Part 5</b>	Resources for Technical Writers	652
	Appendix A: A Quick Guide to Documentation	653
	Appendix B: A Quick Guide to Grammar, Usage, and Mechanics	684
	Works Cited	706
	Index	711

# Detailed Contents

Preface	21	Assess the Audience's Technical Background	46
<b>Part 1</b> Communicating in the Workplace	<b>27</b>	Highly Technical Audience	46
<b>1</b> Introduction to Technical Communication	<b>28</b>	Semitechnical Audience	48
What Is Technical Communication?	29	Nontechnical Audience	49
Technical Communication Is a Digital <i>and</i> a Human Activity	30	Audiences with Varying Technical Backgrounds	50
Technical Communication Reaches a Global Audience	31	CASE Tailoring a Single Document for Multiple Audiences	50
Technical Communication Is Part of Most Careers	32	Digital Documents for Multiple Audiences	51
Technical Communicators Play Many Roles	33	<b>Anticipate Your Audience's Preferences</b>	<b>51</b>
Main Features of Technical Communication	33	Length and Details	51
Reader-Centered	33	Format and Medium	51
Accessible and Efficient	34	Tone	53
Often Produced by Teams	36	Due Date and Timing	53
Delivered in Paper and Digital Versions	36	Budget	53
Purposes of Technical Communication	36	■ <b>GUIDELINES for Analyzing Your Audience and Its Use of the Document</b>	<b>54</b>
Documents That Inform	36	Develop an Audience and Use Profile	54
Documents That Instruct	36	CASE Developing an Audience and Use Profile	56
Documents That Persuade	37	■ <b>CHECKLIST Analyzing Audience and Purpose</b>	<b>57</b>
Preparing Effective Technical Documents	37	■ <b>PROJECTS</b>	<b>57</b>
CASE Providing Information Readers Can Use	38	<b>3</b> Persuading Your Audience	<b>59</b>
CASE Being Persuasive	39	What Is Persuasion?	60
CASE Considering the Ethical Issues	39	Identify Your Specific Persuasive Goal	62
CASE Working on a Team and Thinking Globally	40	Try to Predict Audience Reaction	62
■ <b>PROJECTS</b>	<b>41</b>	Expect Audience Resistance	63
<b>2</b> Meeting the Needs of Specific Audiences	<b>42</b>	<b>Know How to Connect with the Audience</b>	<b>64</b>
Analyze Your Document's Audience and Purpose	44	CASE Connecting with the Audience	65
Primary and Secondary Audiences	44	Allow for Give-and-Take	67
Your Relationship to Your Readers	45	Ask for a Specific Response	67
Purpose of Your Document	45	Never Ask for Too Much	67
Primary and Secondary Purposes	45	Recognize All Constraints	68
Intended Use of the Document	46	Organizational Constraints	68
		Legal Constraints	69
		Ethical Constraints	69
		Time Constraints	70
		Social and Psychological Constraints	70
		■ <b>CONSIDER THIS People Often React Emotionally to Persuasive Appeals</b>	<b>71</b>

## 10 Detailed Contents

Support Your Claims Convincingly	72	■ CHECKLIST Ethical Communication	103
Offer Convincing Evidence	72	■ PROJECTS	103
FACTUAL STATEMENTS 73 • STATISTICS 73 •			
EXAMPLES 73 • EXPERT TESTIMONY 74			
Appeal to Common Goals and Values	74		
Consider the Cultural Context	75		
Digital Persuasion and Social Media	76		
■ GUIDELINES for Persuasion	76		
Shaping Your Argument	78		
■ CHECKLIST Persuasion	82		
■ PROJECTS	82		
<b>4 Weighing the Ethical Issues</b>	<b>84</b>		
Recognize Examples and Causes of Unethical Workplace Communication	86		
Yielding to Social Pressure	87		
Mistaking Groupthink for Teamwork	88		
Types of Communication Abuses in the Workplace	88		
Suppressing Knowledge the Public Needs	89		
Hiding Conflicts of Interest	89		
Exaggerating Claims about Technology	89		
Falsifying or Fabricating Data	90		
Using Visual Images That Conceal the Truth	90		
Stealing or Divulging Proprietary Information	90		
Withholding Information People Need for Their Jobs	90		
Exploiting Cultural Differences	90		
Ethical Issues with Social and Digital Media	91		
Rely on Critical Thinking for Ethical Decisions	92		
Reasonable Criteria for Ethical Judgment	92		
Ethical Dilemmas	93		
Anticipate Some Hard Choices	94		
CASE A Hard Choice	94		
Learn to Recognize Legal Issues and Plagiarism	95		
Learn to Recognize Plagiarism	96		
Blatant Versus Unintentional Plagiarism	97		
Plagiarism and the Internet	98		
Plagiarism and Your Career	98		
■ CONSIDER THIS Ethical Standards are Good for Business	98		
Decide When and How to Report Ethical Abuses	99		
■ GUIDELINES for Ethical Communication	102		
		■ CHECKLIST Ethical Communication	103
		■ PROJECTS	103
<b>5 Teamwork and Global Considerations</b>	<b>105</b>		
Teamwork and Project Management	106		
■ GUIDELINES for Managing a Collaborative Project	108		
Teamwork: Virtual and Face to Face	109		
■ GUIDELINES for Running a Meeting	111		
Identifying and Managing Conflicts in Collaborative Groups	111		
Interpersonal Differences	111		
Gender Differences	112		
Cultural Differences	112		
Managing Group Conflict	112		
Overcoming Differences by Active Listening	113		
■ GUIDELINES for Active Listening	114		
Thinking Creatively	114		
Brainstorm as a Way of Getting Started	114		
Brainstorming with Digital Technologies	115		
Mind-Mapping	115		
Storyboarding	117		
Reviewing and Editing Others' Work	117		
■ GUIDELINES for Peer Reviewing and Editing	118		
Ethical Issues in Workplace Collaboration	118		
Intimidating One's Peers	118		
Claiming Credit for Others' Work	119		
Hoarding Information	119		
Global Considerations When Working in Teams	119		
Interpersonal Issues in Global Teams	120		
DIGITAL COMMUNICATION AND SOCIAL CUES 120 • MISUNDERSTANDING CULTURAL CODES 120 • MISUSING HUMOR, SLANG, AND IDIOMS 120 • MISUSING CULTURALLY SPECIFIC REFERENCES 121 • FAILING TO ALLOW FOR EASY TRANSLATION 121 • FAILING TO LISTEN 122			
■ GUIDELINES for Communicating on a Global Team	122		
■ CHECKLIST Teamwork and Global Considerations	123		
■ PROJECTS	124		
<b>6 An Overview of the Technical Writing Process</b>	<b>126</b>		
Critical Thinking in the Writing Process	128		

A Sample Writing Situation	130	Observations and Experiments	164
Working with the Information	131	■ <b>GUIDELINES for Surveys</b>	166
Planning the Document	132	■ <b>CONSIDER THIS Frequently Asked Questions about Copyright</b>	168
Drafting the Document	134	■ <b>PROJECTS</b>	169
Revising the Document	135		
Make Proofreading Your Final Step	138		
■ <b>GUIDELINES for Proofreading</b>	139	<b>8 Evaluating and Interpreting Information</b>	171
Digital Technology and the Writing Process	139	Evaluate the Sources	172
■ <b>CHECKLIST Proofreading</b>	140	Pay Special Attention to Evaluating Online Sources	174
■ <b>PROJECTS</b>	141	Evaluate the Evidence	174
		Interpret Your Findings	175
<b>Part 2 The Research Process</b>	<b>143</b>	Identify Your Level of Certainty	176
<b>7 Thinking Critically about the Research Process</b>	<b>144</b>	Examine the Underlying Assumptions	176
Three Essential Approaches to Research	145	Be Alert for Personal Bias	177
Asking the Right Questions	146	Consider Other Possible Interpretations	177
CASE Defining and Refining a Research Question	146	■ <b>CONSIDER THIS Standards of Proof Vary for Different Audiences</b>	178
Exploring a Balance of Views	148	Avoid Distorted or Unethical Reasoning	178
Achieving Adequate Depth in Your Search	148	Faulty Generalization	178
Evaluating and Interpreting Your Findings	150	Faulty Causal Reasoning	179
Primary versus Secondary Sources	151	Faulty Statistical Analysis	181
Exploring Secondary Sources	151	THE SANITIZED STATISTIC 181 • THE MEANINGLESS STATISTIC 182 • THE UNDEFINED AVERAGE 182 • THE DISTORTED PERCENTAGE FIGURE 183 • THE BOGUS RANKING 183 • CONFUSION OF CORRELATION WITH CAUSATION 183 • THE BIASED META-ANALYSIS 184 • THE FALLIBLE COMPUTER MODEL 184 • MISLEADING TERMINOLOGY 184	
Searching for Secondary Sources	152	Acknowledge the Limits of Research	185
GOOGLE AND OTHER SEARCH ENGINES 152 • WIKIPEDIA 153 • DIGITAL LIBRARIES 153 • LIBRARIES AND LIBRARY WEB SITES 153		Obstacles to Validity and Reliability	185
Types of Secondary Sources	154	Flaws in Research Studies	186
WEB SITES (GENERAL) 154 • GOVERNMENT WEB SITES 154 • BLOGS 154 • WIKIS (INCLUDING WIKIPEDIA) 155 • SOCIAL MEDIA 155 • ONLINE GROUPS 155 • NEWS OUTLETS (INCLUDING MAGAZINES AND OTHER PERIODICALS) 155 • BOOKS 156 • PEER-REVIEWED JOURNAL ARTICLES 156 • GRAY LITERATURE 156 • REFERENCE WORKS 157		Social Media and Research Reporting	186
■ <b>GUIDELINES for Researching on the Web and with Social Media</b>	159	■ <b>GUIDELINES for Evaluating and Interpreting Information</b>	187
Exploring Primary Sources	160	■ <b>CHECKLIST The Research Process</b>	188
Unsolicited Inquiries	160	■ <b>PROJECTS</b>	189
Informational Interviews	160	<b>9 Summarizing Research Findings and Other Information</b>	191
■ <b>GUIDELINES for Informational Interviews</b>	162	Considering Audience and Purpose	192
Surveys	163	What Readers Expect from a Summary	194

## 12 Detailed Contents

How to Create a Summary	194	Use Passive Voice Selectively	231
■ <b>GUIDELINES for Summarizing Information</b>	<b>198</b>	Avoid Overstuffed Sentences	232
Special Types of Summaries	199	<b>Editing for Conciseness</b>	<b>232</b>
Closing Summary	199	Avoid Wordy Phrases	233
Informative Abstract (“Summary”)	199	Eliminate Redundancy	233
Descriptive Abstract (“Abstract”)	200	Avoid Needless Repetition	233
Executive Abstract	201	Avoid <i>There</i> Sentence Openers	234
Summarizing Information for Social Media	202	Avoid Some <i>It</i> Sentence Openers	234
■ <b>CHECKLIST Summaries</b>	<b>203</b>	Delete Needless Prefaces	234
■ <b>PROJECTS</b>	<b>203</b>	Avoid Weak Verbs	235
		Avoid Excessive Prepositions	236
		Avoid Nominalizations	236
		Make Negatives Positive	238
		Clean Out Clutter Words	238
		Delete Needless Qualifiers	239
		<b>Editing for Fluency</b>	<b>239</b>
		Combine Related Ideas	240
		Vary Sentence Construction and Length	242
		Use Short Sentences for Special Emphasis	242
		<b>Finding the Exact Words</b>	<b>242</b>
		Prefer Simple and Familiar Wording	243
		Avoid Useless Jargon	244
		Use Acronyms Selectively	245
		Avoid Triteness	245
		Avoid Misleading Euphemisms	245
		Avoid Overstatement	246
		Avoid Imprecise Wording	247
		Be Specific and Concrete	247
		Use Analogies to Sharpen the Image	248
		<b>Adjusting Your Tone</b>	<b>249</b>
		■ <b>GUIDELINES for Deciding about Tone</b>	<b>250</b>
		Consider Using an Occasional Contraction	250
		Address Readers Directly	251
		Use <i>I</i> and <i>We</i> When Appropriate	251
		Prefer the Active Voice	252
		Emphasize the Positive	252
		Avoid an Overly Informal Tone	252
		Avoid Personal Bias	253
		Avoid Biased Language	254
		■ <b>GUIDELINES for Avoiding Biased Language</b>	<b>255</b>
		<b>Global, Legal, and Ethical Implications of Style and Tone</b>	<b>256</b>
		<b>Digital Writing and Editing</b>	<b>257</b>
<b>Part 3 Organization, Style, and Visual Design</b>	<b>205</b>		
<b>10 Organizing for Readers</b>	<b>206</b>		
The Typical Shape of Workplace Documents	208		
Outlining	208		
An Outlining Strategy	208		
The Formal Outline	211		
■ <b>GUIDELINES for Outlining</b>	<b>213</b>		
Storyboarding	214		
Paragraphing	214		
The Support Paragraph	214		
The Topic Sentence	216		
Paragraph Unity	217		
Paragraph Coherence	217		
Paragraph Length	218		
Chunking	219		
Providing an Overview	220		
Organizing for Social Media and Global Audiences	221		
■ <b>CHECKLIST Organizing Information</b>	<b>221</b>		
■ <b>PROJECTS</b>	<b>222</b>		
<b>11 Editing for a Professional Style and Tone</b>	<b>224</b>		
Editing for Clarity	226		
Avoid Ambiguous Pronoun References	226		
Avoid Ambiguous Modifiers	227		
Unstack Modifying Nouns	228		
Arrange Word Order for Coherence and Emphasis	228		
Use Active Voice Whenever Possible	229		

■ CHECKLIST Style	258	Use Color to Organize	296
■ PROJECTS	260	Use Color to Orient	296
		Use Color to Emphasize	297
<b>12 Designing Visual Information</b>	<b>261</b>	■ GUIDELINES for Incorporating Color	<b>297</b>
Why Visuals Matter	263	Presenting Visuals	298
When to Use Visuals and How to Choose the Right Ones	264	■ GUIDELINES for Presenting Visuals	<b>299</b>
When to Use Visuals	264	Ethical Considerations	299
Types of Visuals to Consider	265	Present the Real Picture	300
Choosing the Right Visual	266	Present the Complete Picture	300
Using Software to Create Visuals	267	Don't Mistake Distortion for Emphasis	300
Tables	269	Use Copyright Free Visuals or Credit the Work of Others	302
How to Construct a Table	271	■ GUIDELINES for Obtaining and Citing Visual Material	<b>302</b>
Graphs	272	Social Media and Cultural Considerations	303
Bar Graphs	273	■ CHECKLIST Visuals	<b>303</b>
SIMPLE BAR GRAPH 273 • MULTIPLE-BAR GRAPH 273 • HORIZONTAL-BAR GRAPH 274 • STACKED-BAR GRAPH 274 • 100 PERCENT BAR GRAPH 275 • 3-D BAR GRAPH 276		■ PROJECTS	<b>304</b>
Line Graphs	276		
SIMPLE LINE GRAPH 276 • MULTILINE GRAPH 277 • DEVIATION LINE GRAPH 277 • BAND OR AREA GRAPH 278 • MULTIPLE-BAND GRAPH 278		<b>13 Designing Pages and Documents</b>	<b>307</b>
■ GUIDELINES for Creating Tables and Graphs	<b>279</b>	Page Design in Print and Digital Workplace Documents	308
Charts	280	Design Skills Needed by Technical Communicators	309
Pie Charts	280	Word Processing and Desktop Publishing	312
Organization Charts	282	Using Styles and Templates	312
Flowcharts	282	Using Style Guides and Style Sheets	313
Tree Charts	282	Creating a Design That Works for Your Readers	313
Gantt and PERT Charts	282	Shaping the Page	313
Pictograms	285	PROVIDE PAGE NUMBERS, HEADERS, AND FOOTERS 313 • USE A GRID 314 • USE WHITE SPACE TO CREATE AREAS OF EMPHASIS 314 • PROVIDE AMPLE MARGINS 315 • KEEP LINE LENGTH REASONABLE 316 • KEEP LINE SPACING CONSISTENT 316 • TAILOR EACH PARAGRAPH TO ITS PURPOSE 316 • MAKE LISTS FOR EASY READING 317	
■ GUIDELINES for Creating Charts	<b>285</b>	■ GUIDELINES for Shaping the Page	<b>318</b>
Graphic Illustrations	286	Styling the Words and Letters	318
Diagrams	287	SELECT AN APPROPRIATE TYPEFACE 319 • USE TYPE SIZES THAT ARE EASY TO READ 320 • USE FULL CAPS SPARINGLY • 321	
EXPLODED DIAGRAMS 287 • CUTAWAY DIAGRAMS 287 • BLOCK DIAGRAMS 288		■ GUIDELINES for Styling the Words and Letters	<b>321</b>
Photographs	289	Adding Emphasis	322
Maps	290		
Symbols and Icons	291		
Infographics	292		
■ GUIDELINES for Creating Graphic Illustrations	<b>293</b>		
Using Color and Presenting Visuals	295		

## 14 Detailed Contents

■ <b>GUIDELINES for Adding Emphasis</b>	322
Using Headings for Access and Orientation	322
LAY OUT HEADINGS BY LEVEL	323 • DECIDE HOW TO PHRASE YOUR HEADINGS
323 • MAKE HEADINGS VISUALLY CONSISTENT AND GRAMMATICALLY PARALLEL	325
■ <b>GUIDELINES for Using Headings</b>	325
Audience Considerations in Page Design	326
Designing Digital Documents	327
Adobe Acrobat™ and PDF files	327
Web Pages	328
Tablets, Smartphones, and E-reader Pages	329
Social Media Posts	329
■ <b>CHECKLIST Page Design</b>	330
■ <b>PROJECTS</b>	331

## Part 4 Specific Documents and Applications 333

<b>14 Email</b>	334
Email Basics and Types	335
Considering Audience and Purpose	337
Email Parts and Format	339
Email Style and Tone	340
Interpersonal Issues and Email	340
Choose the Right Approach for the Situation	342
Email and External Audiences	343
Ethical, Legal, and Global Issues When Using Email	344
■ <b>GUIDELINES for Writing and Using Email</b>	346
■ <b>CHECKLIST Email</b>	348
■ <b>PROJECTS</b>	349

<b>15 Workplace Memos and Letters</b>	351
Memo Basics, Audience, and Purpose	352
Memo Parts and Format	353
Memo Tone	356
Common Types of Memos	359
Transmittal Memo	359
Summary or Follow-up Memo	359

Routine Miscellaneous Memo	359
■ <b>GUIDELINES for Memos</b>	361
■ <b>CHECKLIST Memos</b>	362
Letter Basics, Audience, and Purpose	364
Letter Parts, Formats, and Design Elements	365
Standard Parts	365
HEADING AND DATE	365 • INSIDE ADDRESS
365 • SALUTATION	367 • TEXT
367 • COMPLIMENTARY CLOSING	367 • SIGNATURE
367	
Optional Parts	368
ATTENTION LINE	368 • SUBJECT LINE
368 • TYPIST'S NOTATION	369 • ENCLOSURE NOTATION
369 • COPY (OR DISTRIBUTION) NOTATION	369 • POSTSCRIPT
369	
Formats and Design Features	370
LETTER FORMAT	370 • QUALITY STATIONERY
370 • UNIFORM MARGINS AND SPACING	370 • HEADERS FOR SUBSEQUENT PAGES
370 • THE ENVELOPE	370
Letter Tone	371
Establish and Maintain a "You" Perspective	371
Be Polite and Tactful	372
Use Plain English	372
Decide on a Direct or Indirect Organizing Pattern	373
Global and Ethical Considerations When Writing Letters	374
■ <b>GUIDELINES for Letters in General</b>	375
Conveying Bad or Unwelcome News in Letters	376
Common Types of Letters	376
Inquiry Letters	376
■ <b>GUIDELINES for Conveying Bad News</b>	378
■ <b>GUIDELINES for Inquiry Letters</b>	381
Claim Letters	381
■ <b>GUIDELINES for Claim Letters</b>	384
Sales Letters	384
■ <b>GUIDELINES for Sales Letters</b>	386
Adjustment Letters	386
■ <b>GUIDELINES for Adjustment Letters</b>	389
■ <b>CHECKLIST Letters</b>	389
■ <b>PROJECTS</b>	390

## 16 Résumés and Other Job-Search Materials

Assessing Your Skills and Aptitudes	394
Researching the Job Market	394
Plan Your Strategy	394
Focus Your Search	394
Explore Employment Resources	395
Learn to Network	396
Résumés	396
Parts of a Résumé	397
CONTACT INFORMATION 397 • CAREER OBJECTIVES 397 • EDUCATION 397 • WORK EXPERIENCE 399 • PERSONAL DATA AND INTERESTS 399 • REFERENCES 399 • PORTFOLIOS 399	
Using Templates	399
Organizing Your Résumé	400
■ <b>GUIDELINES for Writing and Designing Your Résumé</b>	400
Application Letters	402
Solicited Application Letters	402
Unsolicited Application Letters	404
■ <b>GUIDELINES for Application Letters</b>	404
Digital and Print Job Application Materials	405
■ <b>CONSIDER THIS Your Social Media Profile and the Job Search</b>	408
■ <b>GUIDELINES for Online Job Applications</b>	408
Dossiers, Portfolios, and E-Portfolios	409
Dossiers	409
Portfolios and E-portfolios	409
■ <b>GUIDELINES for Dossiers, Portfolios, and E-Portfolios</b>	411
Interviews and Follow-Up Communication	411
Interviews	411
Follow-Up Communication	413
THANK YOU NOTES 413 • ACCEPTANCE OR REFUSAL LETTERS 414	
■ <b>GUIDELINES for Interviews and Follow-Up Communication</b>	414
■ <b>CHECKLIST Résumés</b>	415
■ <b>CHECKLIST Application Letters</b>	416

■ <b>CHECKLIST Supporting Materials</b>	417
■ <b>PROJECTS</b>	417

## 17 Technical Definitions 419

Considering Audience and Purpose	421
Legal, Ethical, Societal, and Global Implications	421
Types of Definition	422
Parenthetical Definitions	423
Sentence Definitions	424
Expanded Definitions	424
Methods for Expanding Definitions	425
Etymology	425
History	426
Negation	426
Operating Principle	426
Analysis of Parts	426
Visuals	427
Comparison and Contrast	427
Required Conditions	428
Examples	428
Using Multiple Expansion Methods	428
AN EXPANDED DEFINITION FOR SEMITECHNICAL READERS 428 • AN EXPANDED DEFINITION FOR NONTECHNICAL READERS 429	
Placing Definitions in a Document	429
■ <b>GUIDELINES for Definitions</b>	435
■ <b>CHECKLIST Definitions</b>	435
■ <b>PROJECTS</b>	436

## 18 Technical Descriptions, Specifications, and Marketing Materials 438

Considering Audience and Purpose	439
Objectivity in Technical Descriptions	440
Elements of Descriptions	441
Clear and Limiting Title	441
Appropriate Level of Detail and Technicality	441
Visuals	441
Clearest Descriptive Sequence	443
SPATIAL SEQUENCE 443 • FUNCTIONAL SEQUENCE 443 • CHRONOLOGICAL SEQUENCE 443	



## 16 Detailed Contents

Types of Technical Descriptions	443	Online Help	483
A Complex Product Description	445	Social Media Instructions	483
A Complex Process Description	449	Procedures	485
■ <b>GUIDELINES for Descriptions</b>	453	Evaluating the Usability of Instructions and Procedures	488
Specifications	453	Usability and the User Experience	488
Types of Specifications	453	Approaches for Evaluating a Document's Usability	490
Considering Audience and Purpose	454	THINK-ALoud EVALUATION 490 • FOCUS GROUPS 490	
■ <b>GUIDELINES for Specifications</b>	456	■ <b>CHECKLIST Instructions and Procedures</b>	491
Technical Marketing Materials	456	■ <b>PROJECTS</b>	492
■ <b>GUIDELINES for Technical Marketing Materials</b>	459	<b>20 Informal Reports</b>	494
■ <b>CHECKLIST Technical Descriptions</b>	459	Informal Versus Formal Reports	495
■ <b>CHECKLIST Specifications</b>	460	Informational Versus Analytical Reports	496
■ <b>CHECKLIST Technical Marketing Materials</b>	461	Types of Informational Reports	497
■ <b>PROJECTS</b>	461	Progress Reports	497
<b>19 Instructions and Procedures</b>	463	■ <b>GUIDELINES for Progress Reports</b>	500
Considering Audience and Purpose	465	Periodic Activity Reports	500
Formats for Instructional Documents	465	■ <b>GUIDELINES for Periodic Activity Reports</b>	500
Faulty Instructions and Legal Liability	468	Trip Reports	502
Elements of Effective Instructions	469	■ <b>GUIDELINES for Trip Reports</b>	503
Clear and Limiting Title	469	Meeting Minutes	504
Informed and Accurate Content	469	■ <b>GUIDELINES for Meeting Minutes</b>	505
Visuals	469	Types of Analytical Reports	505
Appropriate Level of Detail and Technicality	470	Feasibility Reports	505
PROVIDE BACKGROUND 471 • PROVIDE ADEQUATE DETAIL 472 • OFFER EXAMPLES 472		■ <b>GUIDELINES for Feasibility Reports</b>	506
■ <b>GUIDELINES for Providing Appropriate Detail in Instructions</b>	474	Recommendation Reports	508
INCLUDE TROUBLESHOOTING ADVICE 474		■ <b>GUIDELINES for Recommendation Reports</b>	508
Logically Ordered Steps	474	Justification Reports	510
Notes and Hazard Notices	474	■ <b>GUIDELINES for Justification Reports</b>	510
Readability	476	Peer Review Reports	512
USE DIRECT ADDRESS, ACTIVE VOICE, AND IMPERATIVE MOOD 476 • USE SHORT AND LOGICALLY SHAPED SENTENCES 476 • USE PARALLEL PHRASING 477 • PHRASE INSTRUCTIONS AFFIRMATIVELY 477 • USE TRANSITIONS TO MARK TIME AND SEQUENCE 478		■ <b>GUIDELINES for Peer Review Reports</b>	512
Effective Design	478	■ <b>CHECKLIST Informal Reports</b>	512
■ <b>GUIDELINES for Designing Instructions</b>	478	■ <b>PROJECTS</b>	513
Introduction-Body-Conclusion Structure	479	<b>21 Formal Analytical Reports</b>	515
INTRODUCTION 480 • BODY: REQUIRED STEPS 480 • CONCLUSION 480		Considering Audience and Purpose	517
Online and Social Media Instructions	483	Typical Analytical Problems	517

Causal Analysis: “Why Does X Happen?”	518	Audience and Use Profile	540
CASE The Reasoning Process in Causal Analysis	518	■ <b>GUIDELINES for Reasoning through an Analytical Problem</b>	<b>553</b>
Comparative Analysis: “Is X OR Y Better for Our Needs?”	518	■ <b>CHECKLIST Analytical Reports</b>	<b>554</b>
CASE The Reasoning Process in Comparative Analysis	518	■ <b>PROJECTS</b>	<b>555</b>
Feasibility Analysis: “Is This a Good Idea?”	519	<b>22 Proposals</b>	<b>557</b>
CASE The Reasoning Process in Feasibility Analysis	519	Considering Audience and Purpose	558
Combining Types of Analysis	520	The Proposal Process	559
<b>Elements of an Effective Analysis</b>	<b>520</b>	CASE Submitting a Competitive Proposal	560
Clearly Identified Problem or Purpose	520	<b>Types of Proposals</b>	<b>561</b>
Adequate but Not Excessive Data	520	Planning Proposals	562
Accurate and Balanced Data	521	Research Proposals	562
Fully Interpreted Data	523	Sales Proposals	566
Subordination of Personal Bias	523	<b>Elements of a Persuasive Proposal</b>	<b>566</b>
Appropriate Visuals	523	A Forecasting Title or Subject Line	566
Valid Conclusions and Recommendations	523	Background Information	568
Self-Assessment	526	Statement of the Problem	568
<b>Structuring a Formal Report</b>	<b>526</b>	Description of Solution	568
Introduction	527	A Clear Focus on Benefits	568
Body	528	Honest and Supportable Claims	569
SOURCES OF EMF EXPOSURE 529 • PHYSIOLOGIC EFFECTS AND HEALTH RISKS FROM EMF EXPOSURE 531 • DEBATE OVER QUALITY, COST, AND STATUS OF EMF RESEARCH 532 • VIEWS FROM THE POWER INDUSTRY AND THE PUBLIC 534 • RISK-AVOIDANCE MEASURES BEING TAKEN 534		Appropriate Detail	570
Conclusion	535	Readability	570
SUMMARY AND OVERALL INTERPRETATION OF FINDINGS 535 • RECOMMENDATIONS 536		A Tone That Connects with Readers	570
<b>Front Matter and End Matter Supplements</b>	<b>537</b>	Visuals	570
Front Matter	537	Accessible Page Design	571
LETTER OF TRANSMITTAL 537 • TITLE PAGE 537 • TABLE OF CONTENTS 538 • LIST OF TABLES AND FIGURES 538 • ABSTRACT OR EXECUTIVE SUMMARY 538		Supplements Tailored for a Diverse Audience	571
Text of the Report	538	Proper Citation of Sources and Contributors	572
End Matter	538	<b>Structuring a Proposal</b>	<b>572</b>
GLOSSARY 538 • APPENDICES 539 • REFERENCES OR WORKS CITED LIST 539		Introduction	573
<b>A Situation Requiring an Analytical Report</b>	<b>539</b>	Body	575
The Situation	539	Conclusion	577
		<b>A Situation Requiring a Formal Proposal</b>	<b>577</b>
		The Situation	577
		Audience and Use Profile	578
		■ <b>GUIDELINES for Proposals</b>	<b>589</b>
		■ <b>CHECKLIST Proposals</b>	<b>590</b>
		■ <b>PROJECTS</b>	<b>591</b>

<b>23 Oral Presentations and Video Conferencing</b>	<b>592</b>		
Advantages and Drawbacks of Oral Presentations	594		
Avoiding Presentation Pitfalls	594		
<b>Planning Your Presentation</b>	<b>595</b>		
Analyze Your Audience and Purpose	595		
Analyze Your Speaking Situation	597		
Select a Type of Presentation	597		
INFORMATIVE PRESENTATIONS	598	• TRAINING/	
INSTRUCTIONAL PRESENTATIONS	598	• PERSUASIVE	
PRESENTATIONS	598	• ACTION PLAN	
PRESENTATIONS	598	• SALES PRESENTATIONS	599
Select a Delivery Method	599		
THE MEMORIZED DELIVERY	599	• THE IMPROMPTU	
DELIVERY	599	• THE SCRIPTED DELIVERY	599
THE		EXTEMPORANEOUS DELIVERY	600
<b>Preparing Your Presentation</b>	<b>601</b>		
Research Your Topic	601		
Aim for Simplicity and Conciseness	601		
Anticipate Audience Questions	601		
Outline Your Presentation	601		
INTRODUCTION	602	• BODY	602
CONCLUSION	602		
<b>Planning Your Visuals and Choosing a Media Format</b>	<b>603</b>		
Decide Which Visuals to Use and Where to Use Them	604		
Create a Storyboard	604		
Decide Which Visuals You Can Realistically Create	604		
BE SELECTIVE	605	• MAKE VISUALS EASY TO READ	
AND UNDERSTAND	605	• USE THE RIGHT APP TO	
PREPARE YOUR VISUALS	606		
Choose the Right Media Format	606		
<b>Using PowerPoint and Other Presentation Apps</b>	<b>608</b>		
When and How to Use Handouts	609		
Ethics and the Use of Presentation Apps	609		
CASE PowerPoint and the Space Shuttle Columbia Disaster	611		
■ <b>GUIDELINES for Using Presentation Apps</b>	<b>611</b>		
<b>Delivering Your Presentation</b>	<b>612</b>		
Rehearse Your Delivery	612		
Check the Room and Setting Beforehand	613		
Cultivate the Human Landscape	613		
GET TO KNOW YOUR AUDIENCE	613	• BE	
REASONABLE	613	• DISPLAY ENTHUSIASM AND	
CONFIDENCE	613	• DON'T PREACH	613
Keep Your Listeners Oriented	613		
OPEN WITH A CLEAR AND ENGAGING		INTRODUCTION	613
• GIVE CONCRETE		EXAMPLES	614
• PROVIDE EXPLICIT		TRANSITIONS	614
• REVIEW AND INTERPRET		614	
Plan for How You Will Use Any Noncomputer Visual Aids	614		
PREPARE	615	• ORGANIZE	615
• AVOID LISTENER		DISTRACTION	615
Manage Your Presentation Style	615		
USE NATURAL MOVEMENTS AND REASONABLE		POSTURES	615
• ADJUST VOLUME,		PRONUNCIATION, AND RATE	615
• MAINTAIN		EYE CONTACT	615
Manage Your Speaking Situation	616		
■ <b>CONSIDER THIS Cross-Cultural Audiences May Have Specific Expectations</b>	<b>616</b>		
BE RESPONSIVE TO LISTENER FEEDBACK	616	•	
STICK TO YOUR PLAN	617	• LEAVE LISTENERS WITH	
SOMETHING TO REMEMBER	617	• ALLOW TIME FOR	
QUESTIONS AND ANSWERS (Q & A)	617		
■ <b>GUIDELINES for Delivering an Oral Presentation and Managing Listener Questions</b>	<b>617</b>		
<b>Video Conferencing</b>	<b>618</b>		
■ <b>GUIDELINES for Video Conferencing</b>	<b>619</b>		
■ <b>CHECKLIST Oral Presentations</b>	<b>619</b>		
■ <b>PROJECTS</b>	<b>620</b>		
<b>24 Blogs, Wikis, and Web Pages</b>	<b>622</b>		
Considering Audience and Purpose	624		
Blogs	625		
Internal Blogs	625		
External Blogs	625		
Wikis	626		
Internal Wikis	626		
External Wikis	626		
■ <b>GUIDELINES for Writing and Using Blogs and Wikis</b>	<b>627</b>		
Web Pages	627		
How People Read Web Pages	628		
Writing and Designing for the Web	629		
■ <b>GUIDELINES for Writing Web Pages</b>	<b>630</b>		
■ <b>GUIDELINES for Designing Web Pages</b>	<b>631</b>		
Techniques and Technologies for Creating Web Sites	631		
Planning Web Sites Using Storyboarding	632		

Teamwork When Creating Web Sites	632	■ <b>GUIDELINES for Quoting</b>	654
Tools for Creating Web Pages	633	Paraphrasing the Work of Others	656
Global, Ethical, and Legal Considerations	633	■ <b>GUIDELINES for Paraphrasing</b>	656
Global Considerations	633	What You Should Document	657
Ethical Considerations	633	How You Should Document	658
Legal Considerations	634	MLA Documentation Style	658
■ <b>GUIDELINES for Global, Ethical, and Legal Considerations on the Web</b>	634	MLA Parenthetical References	658
■ <b>CHECKLIST Writing and Designing for Blogs, Wikis, and the Web</b>	635	MLA Works Cited Entries	659
■ <b>PROJECTS</b>	636	MLA Sample Works Cited Pages	669
		Discussion of Figure A.4	672
		APA Documentation Style	672
<b>25 Social Media</b>	<b>638</b>	APA Parenthetical References	673
Considering Audience and Purpose	640	APA Reference List Entries	673
Audience as Contributor	642	APA Sample Reference List	681
Personal Versus Workplace Uses of Social Media	642	Discussion of Figure A.5	683
Using Social Media for Technical Communication	643	<b>Appendix B: A Quick Guide to Grammar, Usage, and Mechanics</b>	<b>684</b>
Customer Review Sites	643	<b>Grammar</b>	<b>684</b>
Facebook	643	Sentence Fragments	684
Google+	643	Run-On Sentences	685
Instagram	644	Comma Splices	685
LinkedIn and Other Job Sites	644	Faulty Agreement—Subject and Verb	686
Twitter	645	Faulty Agreement—Pronoun and Referent	687
YouTube	646	Dangling and Misplaced Modifiers	687
Instructional Videos for Social Media	646	Faulty Parallelism	688
■ <b>GUIDELINES for Creating Instructional Videos for Social Media</b>	647	Faulty Coordination	689
Credibility and Legal Issues	648	Faulty Subordination	689
■ <b>GUIDELINES for Writing and Using Social Media</b>	649	Faulty Pronoun Case	690
■ <b>CHECKLIST Social Media</b>	650	<b>Punctuation</b>	<b>691</b>
■ <b>PROJECTS</b>	650	Period	691
		Question Mark	691
		Exclamation Point	691
		Semicolon	691
		Colon	692
		Comma	692
		Apostrophe	695
		Quotation Marks	696
		Ellipses	697
<b>Part 5 Resources for Technical Writers</b>	<b>652</b>		
<b>Appendix A: A Quick Guide to Documentation</b>	<b>653</b>		
Taking Notes	653		
■ <b>GUIDELINES for Taking Notes</b>	653		
Quoting the Work of Others	654		

## 20 Detailed Contents

Brackets	697	<b>Transitions</b>	<b>703</b>
Italics	697	Use Transitional Expressions	703
Parentheses	698	Repeat Key Words and Phrases	703
Dashes	698	Use Forecasting Statements	703
<b>Mechanics</b>	<b>698</b>	<b>Lists</b>	<b>703</b>
Abbreviation	698	Embedded Lists	703
Hyphenation	699	Vertical Lists	704
Capitalization	699		
Numbers and Numerals	700		
Spelling	701	<b>Works Cited</b>	<b>706</b>
<b>Usage</b>	<b>701</b>	<b>Index</b>	<b>711</b>

# Preface

Whether digital, face-to-face, handwritten, or printed, workplace communication is more than a value-neutral exercise in “information transfer.” Workplace communication is also 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*, Fifteenth 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 to the Fifteenth Edition?

*Technical Communication*, Fifteenth 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:

- **The latest coverage of digital communication and social media.** As in every edition of *Technical*

*Communication*, the latest innovations in digital communication have been woven throughout the book (for example, using JAWS to make Web pages accessible for visually impaired users; the increasingly common use of video interviews; the use of PDF files for most online instructional material; using collaborative writing apps and spaces such as Google Drive; and more). In this edition, we’ve placed a special emphasis on the relationships between social media and technical communication, with social media considerations incorporated into nearly every chapter. In addition, the “Social Media” chapter itself (Chapter 25) has been updated and expanded to include new discussion of workplace uses of Instagram and creating instructional videos for YouTube and other social media, including a new “Guidelines for Creating Instructional Videos for Social Media” box.

- **New discussions on the challenges of assessing credible information when using online sources.** In addition to covering the latest in digital technology, we have included content on the challenges writers and everyday citizens face when using the Internet for research, including discussions in Chapters 7, 8, and 9 (on research) about *confirmation bias* and ways that online information tends to reinforce what people already believe or want to believe.
- **Streamlined topical coverage within chapters.** Although we have not changed the overall structure or sequence of chapters in the book, we have done extensive combining of related sections and reorganizing of topics within chapters for improved accessibility and fewer major sections for students to navigate. As in the previous edition, all major sections are tied

to the Learning Objectives that appear at the beginning of each chapter.

- **An extensively revised chapter on visuals.** Chapter 12, “Designing Visual Information,” now places stronger emphasis on planning visuals by placing the Planning Sheet for Preparing Visuals early in the chapter. In addition, the chapter includes a new section on understanding and creating infographics, as well as a new section on presenting visuals.
- **A revised and expanded chapter on email.** Chapter 14, “Email,” now includes a new section on the three major types of email (primary, transmittal, and formatted), as well as revised and expanded coverage of interpersonal issues when using email, updated coverage of global, ethical, and legal issues related to email, and new and revised sample emails throughout the chapter.
- **A thoroughly revised chapter on oral presentations.** Without changing any of the clear and practical advice on planning, preparing, and delivering oral presentations, Chapter 23, “Oral Presentations and Video Conferencing” has been revised to include a new section on when and how to use handouts during presentations, expanded discussion of the cautions of relying too much on presentation apps, more emphasis on considering the needs of off-site audiences when planning and preparing oral presentations, and updated figures throughout the chapter.
- **Extensively revised Projects.** The end-of-chapter Projects—which continue to be organized into General, Team, Digital and Social Media, and Global categories—have been fully revised for this edition.

## Hallmarks of *Technical Communication*

*Technical Communication*, Fifteenth Edition, retains—and enhances or expands—the features that have made it a best-selling text for technical

communication over fourteen 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 the most recent 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, especially in discussions about online information.
- **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, not just a set of job-related transcription tasks, with broad societal implications. Accordingly, situations and sample documents in this edition address complex technical and societal issues such as climate change, 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.
- **Part 2: 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 digital form; to evaluate and interpret their findings; and to summarize for economy, accuracy, and emphasis. Students are asked to think critically about online information and to consider the credibility and truthfulness of the source.
- **Part 3: 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 4: 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, Web pages, and social media emphasize the ubiquity of digital communication in today’s workplace.
- **Part 5: 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.

## 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 1: 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.

## 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*,



Fifteenth 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.

## Supplements

Make more time for your students with instructor resources that offer effective learning assessments and classroom engagement. Pearson's partnership with educators does not end with the delivery of course materials; Pearson is there with you on the first day of class and beyond. A dedicated team of local Pearson representatives will work with you to not only choose course materials but also integrate them into your class and assess their effectiveness. Our goal is your goal—to improve instruction with each semester.

Pearson is pleased to offer the following resources to qualified adopters of *Technical Communication*, available for download at [www.pearsonglobaleditions.com](http://www.pearsonglobaleditions.com)

- **TEST BANK** Evaluate learning at every level. Reviewed for clarity and accuracy, the Test Bank measures this material's learning objectives with multiple-choice, true/false, and fill-in-the-blank questions. You can easily customize the assessment to work in any major learning management system and to match what is covered in your course.
- **INSTRUCTOR'S RESOURCE MANUAL** by **Lee Scholder, M.S., J.D.** Create a comprehensive roadmap for teaching classroom, online, or hybrid courses. Designed for new and experienced instructors, the Instructor's Resource Manual includes overall teaching strategies (including general teaching ideas and sample syllabi) and chapter-specific resources (including chapter overviews, Learning Objectives, teaching tips, additional exercises, and quizzes).
- **POWERPOINT PRESENTATION** Make lectures more enriching for students. The accessible PowerPoint Presentation includes a full lecture outline and figures from the textbook.

## Acknowledgments

From prior editions, we wish to thank University of Massachusetts colleague Professor Peter Owens for his input on libel law in Chapter 4, Glenn Tarullo for sharing his decisions about the writing process in Chapter 6, and librarians Shaleen Barnes and Ross LaBaugh for their inspirations about the research process in Chapter 7. Also, thank you to Daryl Davis from Northern Michigan University for help in clarifying the descriptive abstract distinctions made in Chapter 9.

Many of the refinements in this and earlier editions were inspired by generous and insightful suggestions from our reviewers. For this edition, we are grateful for the comments of the following reviewers:

- Mikayla Beaudrie, University of Florida
- Mary Faure, The Ohio State University
- William Matter, Richland College
- Ida Patton, Arkansas State University
- Nancy Riecken, Ivy Tech Community College
- Terri Thorson, Arizona State University
- Nicole Wilson, Bowie State University

We thank our colleagues and students at the University of Massachusetts and the University of Minnesota, respectively, for their ongoing inspiration. This edition is the product of much guidance and support from Pearson Education, Ohlinger Publishing Services, and Integra-Chicago. From

Aron Keesbury, Cynthia Cox, Maggie Barbieri, Kate Hoefler, Rachel Harbour, Tom Stover, Chris Fegan, Joe Croscup, Carmen Altes, and Valerie Iglar-Mobley, we received outstanding editorial guidance, support, and project management. Many thanks to freelance development editor Bruce Cantley for his generous and unflagging development help and valuable ideas.

From John M. Lannon, special thanks to those who help me keep going: Chega, Daniel, Sarah, Patrick, and Zorro. From Laura J. Gurak, thanks greatly to Nancy, to my friends and family, and to my four-legged companions for the ongoing support and friendship.

—*John M. Lannon and Laura J. Gurak*

## Global Edition Acknowledgments

Pearson would like to thank the following people for their work on the Global Edition:

### Contributors

- Jon and Diane Sutherland

### Reviewers

- Dave Centeno, University of the Philippines
- Medha Bhattacharya, Bengal Institute of Technology



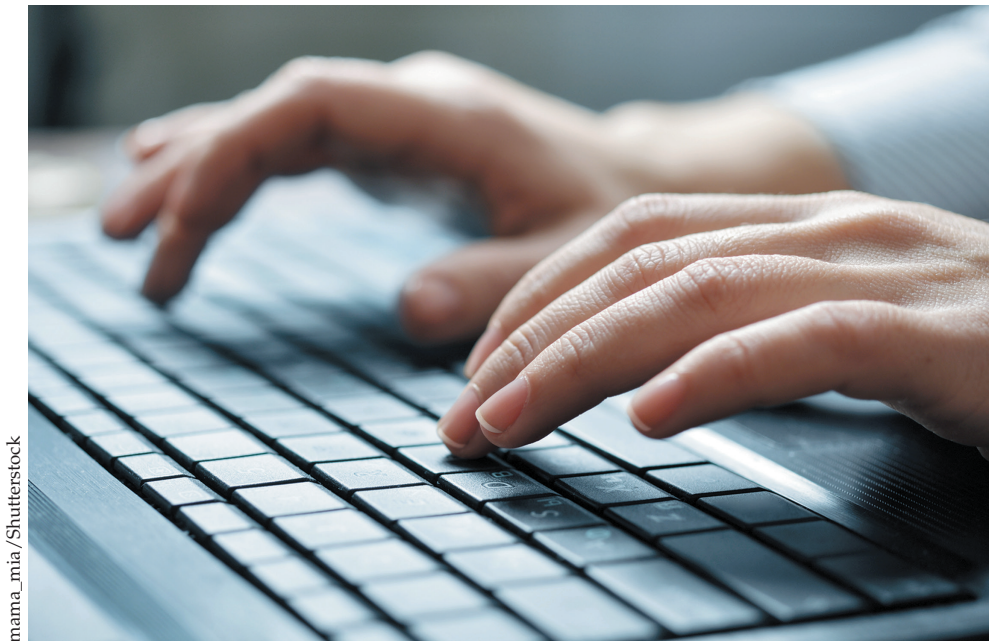
## Part 1

# 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

# Chapter 1

# Introduction to Technical Communication



“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. No matter if the document is to be delivered in print or online, 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*

What Is Technical  
Communication?

Main Features of Technical  
Communication

Purposes of Technical  
Communication

Preparing Effective  
Technical Documents

Projects



## Learning Objectives

**1.1** Define technical communication

**1.2** Identify the main features of technical communication

**1.3** Explain the purposes of technical communication

**1.4** Describe the four tasks involved in preparing effective technical documents

## What Is Technical Communication?

### 1.1 Define technical communication

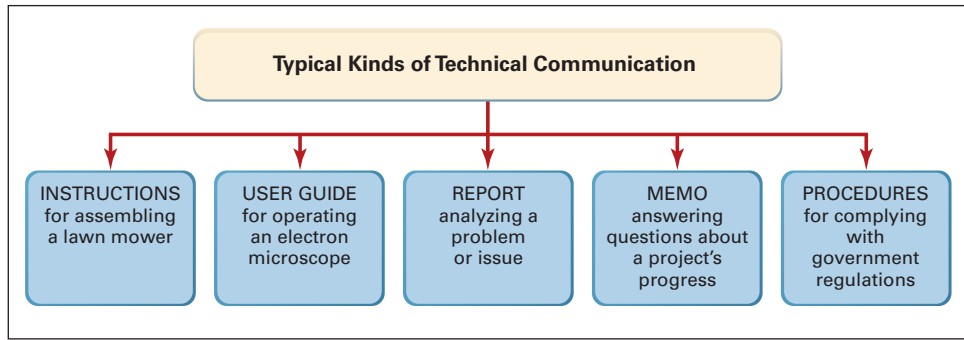
Technical communication is the exchange of information that helps people interact with technology and solve complex problems. Almost every day, we make decisions or take actions that depend on technical information. When we purchase any new device, from a digital camera to a Wi-Fi range extender, it's the setup information that we look for as soon as we open the box. Before we opt for the latest in advanced medical treatment, we go online and search for all the information we can find about this treatment's benefits and risks. From banking systems to online courses to business negotiations, almost every aspect of daily life involves technology and technical information. Because our technologies are so much a part of our lives, we need information that is technically accurate and, importantly, 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 also producers. To be effective and useful, any document or presentation we prepare (memo, letter, report, Web page, PowerPoint presentation) 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

Digital communication requires attention to style and tone

In today's workplace, with all of the digital communication available to us, we communicate in writing more than ever. Email, texts, chat sessions, social media and blog posts, document review features (such as Word's track changes when editing group documents): These technologies are a daily part of our workplace communication. Digital technologies make it easy for people to collaborate, especially across different time zones or work schedules. Yet in digital formats, we often communicate with such speed that we 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 sent late in the day when you are rushing to get out of the office 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. Doing a Google or other online 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 credibility and 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?