

Book Review

Johndan Johnson-Eilola and Stuart A. Selber, Editors

Solving Problems in Technical Communication

—Reviewed by

CHRISTIAN F. CASPER, ROBIN FOWLER, AND ELAINE WISNIEWSKI

Index Terms—Context of technical communication, overview, practice and theory.

The editors of *Solving Problems in Technical Communication* state that the book is intended for “students who are learning about the field of technical communication” [p. 1] or professionals “interested in keeping up with new developments in the field” [p. 9]. As members of the second cohort, we agree with that choice of audience wholeheartedly. As teachers of technical communication in an engineering college, we agree that the text is appropriate for students, but we would restrict the audience further, to students who plan to become technical communicators. We believe that this book would be an appropriate textbook for undergraduate and graduate courses for technical communication majors. We do not believe this textbook is appropriate for nonmajors in technical communication courses, such as in our context, where engineering majors have required technical communication coursework. However, as instructors in that context, we may draw from chapters to inform our teaching practices.

Given the recursive relationship between theory and practice (which the editors discuss on p. 9), each chapter in the book is framed with the theory behind the topic through a literature review as well as practical applications, illustrated with a concrete example.

The editors have organized the book into four interconnected phases: (1) Mapping the Field, (2) Situating the Field, (3) Understanding Field Approaches, and (4) Developing Field Knowledge. Each larger phase includes four to six chapters. The chapters are then organized into seven sections:

- (1) A summary, which discusses the need to focus on the chapter question
- (2) An introduction, which offers a scenario (typically in a nonacademic workplace involving practicing technical communicators) that helps clarify the problem context for the chapter question
- (3) A literature review, which elaborates on the problem contexts for the chapter question by discussing theory and present knowledge in the field
- (4) A heuristic, which provides a framework to enable the reader to investigate, conceptualize, or engage the problem context (this could take the form of a series of questions and answers, a model, a taxonomy, a flowchart, or a grid)
- (5) An extended example, which shows how to employ the heuristic and illustrates how it can guide technical communication work
- (6) A conclusion, which revisits the main points in the chapter
- (7) Discussion questions, which challenge and stimulate the reader’s thinking; we believe this is a particularly useful pedagogical tool

Part 1, “Mapping the Field,” lays the groundwork for students and instructors alike that the technical communication field is complex, dynamic, and multifaceted. Through four chapters written by leaders in the field, the text defines the field through mapping the field, researching workplace practices and patterns, and emphasizing the importance of continual professional development. Richard and Cynthia Selfe’s chapter, “What Are the Boundaries, Artifacts, and Identities of Technical Communication?,” provides an overview of the common approaches used to map the field and presents a novel step-by-step approach to map the field through the use of text and tag clouds. Bill Hart-Davison’s chapter, “What Are the Work Patterns of Technical Communicators?,” argues that technical writers do much more than write on their jobs and provides insight into three main characteristics that frame a “contemporary technical communicator”: information design,

Manuscript received January 01, 2013; revised January 02, 2013; accepted July 03, 2013. Date of current version November 20, 2013.

The reviewers are with the University of Michigan, Program in Technical Communication, Ann Arbor, MI 48109 USA (email: cfcasper@umich.edu; robinfowler@umich.edu; ewis@umich.edu)

IEEE 10.1109/TPC.2013.2274104

Book publisher: Chicago, IL: The University of Chicago Press, 2013, 500 pp. with index.

user advocacy, and content and community management. (Although the chapter is grounded in current research of work practices, the chapter's credibility would be strengthened if more caveats were offered that this example model was not a "one-size-fits-all" for all organizations.) Jim Henry's chapter, "How Can Technical Communicators Fit into Contemporary Organizations?," illustrates how technical communicators can employ a cultural analysis through various research methods and can exercise their agency through creating a professional identity. Kelli Cargile Cook, Emily Cook, Ben Minson, and Stephanie Wilson's chapter, "How Can Technical Communicators Develop as Both Students and Professionals?," primarily focuses on the importance of professional development at all stages of one's career by highlighting the paths of her previous students (who are other authors on the chapter). In addition, the chapter touches upon the oft-debated topic of whether technical communication is a "profession" or only a "discipline." Students and instructors alike will find the discussion in these chapters thorough and relevant.

Part 2, "Situating the Field," puts technical communication into a broader context by considering several ways in which technical communication relates to and draws from neighboring disciplines, in particular rhetoric, computer-supported cooperative work (CSCW) and human-computer interaction (HCI), history, and future studies. James E. Porter's chapter, "How Can Rhetoric Theory Inform the Practice of Technical Communication?," offers a useful and important demonstration of how to apply Rhetorical theory (Porter's truncating of "rhetorical theory" to "rhetoric theory" is jarring) to particular situations in the workplace and, for those of us who make our living teaching technical communication as a practice, how to give our students useful conceptual tools that they can apply in other situations. Jason Swarts's chapter, "How Can Work Tools Shape and Organize Technical Communication?," is the strongest of this particular group. It shows how tools mediate our actions and our interactions with texts and with our interlocutors, paying special attention to the contexts in which these activities occur. Bernadette Longo and T. Kenny Fountain write in a chapter entitled "What Can History Teach Us About Technical Communication?" that an organization's history and the systems of order that process therefrom are important parts of the web of considerations that need to be taken into account when making decisions

about technical communication. Finally, Brad Mehlenbacher's chapter, "What Is the Future of Technical Communication?," offers a vision of the underdetermined work contexts, "wicked" problems, lack of expertise (and lack of the possibility of expertise), and severely restricted timeframes for reading and for work tasks that await the worker of the next several decades.

Part 3, "Understanding Field Approaches," states as a goal to move back to theory from practice. The first chapter, "How Can Technical Communicators Work in an Ethical and Legal Manner?" by J. Blake Scott, provides a heuristic for considering stakeholders and key ethical issues in communication situations. The fictional case-study and discussion questions would be useful tools for a classroom discussion on ethics in technical communication practice. Clay Spinuzzi's chapter, "How Can Technical Communicators Study Work Contexts?," introduces academic models for understanding work contexts. Though it is important to understand effective contexts in order to emulate them, the specific relevance of this topic for technical communicators is not really addressed. "How Can Technical Communicators Evaluate the Usability of Artifacts?," by Barbara Mirel, and "How Can Technical Communicators Plan for Users?," by Antonio Ceraso, describe methods and considerations for planning for an audience and for planning responsiveness into communication design. Both chapters are important overviews of usability considerations, though there is a fairly significant overlap between the two. Better coordination between these two treatments of a similar topic might have made the general message clearer for students, so that similar ideas were treated explicitly as similar (or perhaps, space was not used to make the same point again), and so that different perspectives were more clearly denoted. Finally, R. Stanley Dicks' "How Can Technical Communicators Manage Projects?" feels a bit dated, with descriptions of paper-based DayRunner and Franklin Covey Planner systems and much less focus on software/cloud time-management solutions. Outlook is mentioned, but Google Calendar is noticeably omitted. Inclusion of a significant discussion of collaboration on projects as part of project management, including characteristics of tools that facilitate collaboration, would improve this chapter.

Part 4, "Developing Field Knowledge," is most useful for students and teachers of technical communication. Brent Henze provides a superb

introduction to genre in his chapter “What Do Technical Communicators Need to Know about Genre?”. Grounding his discussion in Carolyn Miller’s conception of genres as typified social actions responding to recurrent situations, Henze clarifies what is meant by each of these key terms—*social action*, *typification*, *recurrence*, and *situation*—and uses this to discuss the intersection of genre with concerns about audience, purpose, documents, and the learning of communication practices in the workplace. He then applies his introduction to these concepts to a hypothetical situation in which a new employee learns to write a particular kind of report to respond to a typified, recurrent situation in his new job. All in all, this is one of the most useful chapters in the book for new technical communicators needing to stock their conceptual toolbox with some of the most basic and important implementations, and it would be useful as well for technical communication instructors seeking ways to explicitly connect theory with practice.

The title of the contribution by Ann M. Blakeslee and Gerald J. Savage, “What Do Technical Communicators Need to Know about Writing?” is overly expansive at first glance, but the discussion sensibly focuses on the writing process and the tasks that new technical communicators face in their workplace writing projects. It presents results from a survey of technical communicators about their writing practices followed by a useful heuristic for analyzing the tasks to be accomplished in a writing project. It doesn’t do as much as some other chapters to introduce conceptual tools and their applications, but it’s an appropriate addition to the book, and many students are likely to find it helpful, even if it isn’t as pedagogically useful to instructors who may be using the book to find ways to apply theoretical concepts to concrete workplace problems.

Karen Schriver’s chapter, “What Do Technical Communicators Need to Know About Information Design?,” emphasizes the importance of attending to visual rhetoric when communicating information. With evidence from research in information design and psychology, her chapter introduces a three-phase heuristic of shaping content, including how to group content in rhetorical clusters, organize clusters to visually show contrast, and signal structural relationships through visual and verbal cues. She applies the heuristic to a practical application of designing a flyer. The depth of explanation is fantastic, including step-by-step details and pencil sketches on how the writer

thought through each phase. Schriver rightfully emphasizes that information design is more than selecting a typeface, that it is instead an essential component to enhancing the message. Instructors should find this chapter incredibly informative (perhaps eye-opening if they haven’t taught visual rhetoric), filled with evidence-based research, and applicable to a general student population.

Anne Frances Wysocki’s chapter, “What Do Technical Communicators Need to Know about New Media?,” provides a timely overview of new media and the rhetorical applications, important for all technical communication courses. She argues that “new media” includes more than the software and hardware required to communicate, but also the rhetorical and political strategies that must be employed when deciding when and how to communicate. Through a concrete example, she provides a detailed application of the rhetorical heuristic to assist in decision making. This discussion alone is significant in that it attempts to sensitize and raise the awareness of the communicator to consider purpose, audience, and context in a digital environment.

The chapter “What Do Technical Communicators Need to Know about Collaboration?,” by Rebecca Burnett, L. Andrew Cooper, and Candice Welhausen, tackles the important topic of collaboration on communication. This strong chapter presents a careful discussion of pitfalls to collaboration and includes a high-level discussion of technology tools that facilitate collaboration. The chapter almost entirely avoids a discussion of particular tools, a good choice given that tools are quickly evolving and more specific discussion would quickly become dated. The example collaboration situation is clear and concrete and allows the authors to discuss multiple contexts for collaboration. The discussion questions at the end of the chapter would serve as good prompts for a lively classroom conversation about collaboration.

The final chapter, “What Do Technical Communicators Need to Know about International Environments?” by Kirk St. Amant, clearly explains how cultural differences in rhetorical expectations affect the interpretation of technical communication. The chapter should convince readers that understanding the audience’s cultural context is critical, and the four tasks enumerated in the chapter should give a communicator a method for better understanding cultural expectations. It is surprising that the chapter doesn’t stress the importance of using a native informant to

understand those expectations. Although the focus on cultural rhetorical expectations is important, the chapter could have been further developed with a section on writing in English for non-native speakers of English (in terms of information design and linguistic choices).

Overall, the chapters in *Solving Problems in Technical Communication* provide an accessible

introduction to major topics in the theory and practice of technical communication. The texts' focus on the context of communicators makes the book appropriate for technical communication majors at the undergraduate and graduate levels. Instructors of technical communication, including those who teach nonmajors, will find the discussion questions and literature overviews particularly useful.