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INTRODUCTION TO *TEACHING PROFESSIONAL AND TECHNICAL COMMUNICATION*

A Practicum in a Book

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Teaching Professional and Technical Communication: A Practicum in a Book grew out of my efforts to create a technical communication pedagogy course for local secondary education teachers, part-time teachers, and graduate students who knew little to nothing about the subject, let alone how to teach it. This book delivers what I didn't have when I first taught technical communication—a practicum that enabled me to see pedagogical approaches in action before stepping into the classroom. This collection is intended to help inexperienced instructors understand the classroom experience of the PTC instructor and how to be professional and technical communication instructors in face-to-face classrooms. *Inexperienced instructors* refers to instructors from academia with no industry experience, industry professionals with no academic training, or graduate students with neither. To address this gap, I thought it was important to require readings of the landmark essays that provide a theoretical foundation informing pedagogical approaches (see Suggested Readings at the end of this introduction), but which also provide pragmatic knowledge about instruction. Because many of us in the field learned to teach Professional and Technical Communication (PTC) through trial and error, hallway conversations, conference presentations, and discussions with colleagues—all of which address important theoretical information about teaching professional and technical communication—many of the practical aspects of teaching the subject have not been available in print since the 1980s, and so much has changed since those early days.

Although it does not aim to be a compendium of best practices, this collection does provide plenty of practical advice and examples. To that

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end, I asked contributors to shape their chapters as if they were observers in a classroom recording classroom practice. They describe what teaching a particular PTC competency, such as information design, looks like in actual practice by establishing a scenario; providing a theoretical basis as a foundation for interpreting the scenario; illustrating the practical aspects of applying the approach, method, or practice; and describing assignments or activities that instructors can generalize to use in their own classrooms. Each chapter concludes with a list of questions for pedagogical discussions. It delivers a deeper level of training—a practicum that prepares instructors to walk into the professional and technical communication classroom with confidence. The term *practicum* can suggest a purely practical approach to teaching, or it can refer to the cumulative knowledge and skills acquired over the course of an education. For this collection, practicum signifies both the theoretical and practical aspects of preparing to teach PTC. This "practicum in a book" guides instructors through the teaching of topics normally covered in service or introductory courses in professional and technical communication.

I begin this practicum in a book by describing the problem-solving approach used most frequently in professional and technical communication classes followed by a description of the various competencies taught in these classes. Technical communication instructors must be aware of the role these competencies play in writing technical documents so they will be better able to guide student learning. These general competencies include audience analysis and purpose, information design, project and content management, style, and ethics. Although I discuss each competency separately, they are typically taught simultaneously. That is, it is difficult to teach ethics without also considering rhetorical devices such as audience and purpose or to teach genre without also addressing design and content strategy. Likewise, it is impossible to teach any of these competencies without also tending to style issues. And given the nature of globalization, it would be difficult to prepare technical documents for international contexts without also considering the impact of these competencies on those audiences. This problem-solving approach helps instructors situate these competencies within a context of social action.

PROBLEM-SOLVING APPROACH

Sometime in the 1980s, we moved from a forms-based approach focused on the various parts of a form that students followed like a template with little consideration for the action involved to more socially based

approaches that examine the contexts and influences on that document—what I'm calling a *problem-solving approach*. This approach is a critical thinking method that guides students through the various iterations of a technical document. It asks students to approach their writing from the standpoint of solving a communication problem. For example, while a memo as a form has identifiable, common parts (i.e., To, From, Date, and Subject), it is equally important to consider the various social aspects of that piece of communication and why, for example, this or that word, heading, or design was chosen. Documents grow out of a context and a situation, which affect all aspects of the writing. S*ocial aspects* refers to the various contexts in which PTC is involved, such as examining the power relations between the addressee and the writer, or the role of professional and technical communicators in an organization's hierarchy, or how the creation and organization of content (seen as a product) can help define those relationships. These examples demonstrate the value of focusing on the social approaches of PTC in ways that engage students in their own learning and help them develop an awareness of audience, purpose, and situation. Lloyd Bitzer (1968) calls this the "rhetorical situation."

The exigency of a rhetorical situation, Bitzer says, is what calls the writing "into existence" (its purpose or reason for existing) and what informs the writer's choices about the appropriate style, tone, register, design, and graphics to be used given a particular situation (2). When students learn about writing in a context, or reacting to a situation, they begin to see how communication happens in the workplace. It's not simply the creation of a genre; it is a form of social action that grows out of a particular situation. In the workplace, events often require a document of some sort (e.g., a trip report, an activity log, an instruction set, a user manual, a memo, a letter, and so on) that communicates various actions to a specific internal or an external audience (e.g., new policies are enacted, updates are communicated, marketing materials are made, and so on). Creating assignments that focus on a situation students can then use to direct their writing (e.g., writing a progress report for a group project) has become common pedagogical practice. Shaped by the nuances of the rhetorical situation, instruction has evolved into a pedagogy focused on problem solving, and this approach is what enables students to become agents writing in situ.

The various stages of this approach include preparatory work of such considerations of audience, purpose, research, genre, and situational analysis, that is, how the document will be used and in what context. For example, when I assign instruction sets, I often begin by showing

students images from NASA that show an astronaut making repairs outside the International Space Station. In this image, an astronaut is consulting the pages of a book attached to his wrist; the book is a big picture book made out of plastic. In another image, an astronaut is consulting a portable tablet attached to her wrist. Both images are powerful reminders that documents (print or digital) created for space must address how they will be used by the intended audience. Given the confines of space travel, astronauts need large text and images that are easy to see despite the huge helmet and big buttons that are easy to push with large gloves on. This example illustrates the importance of social context and the kinds of knowledge writers need when drafting documents that will be used for a particular purpose.

Following this preparatory work, instructors can then instruct students to begin drafting the document, using what they learned from the preparatory work to craft sentences and organize the document's content. Students then must think about how best to organize the content in ways that make it easy to find information because technical documents are not often read from beginning to end as one would read a novel. They are scanned by readers looking for specific information. For example, astronauts repairing a loose joint on the International Space Station may bypass some information about what the joint is and how it works in order to get to the repairs more quickly. Given their limited time outside the space station, astronauts must make repairs quickly and cannot spend time on information not useful to the specific task. Students must then think about the wording of each step, which requires using the imperative voice, providing feedback statements when necessary, shaping the content into manageable chunks. Following the drafting and organization stages, students would complete the writing process by copyediting and proofreading the content, paying close attention to sentence and paragraph structure and style.

Students would then ensure that the design of the document aids usability. By discussing this step as if it were a last part of the process, I do not mean to suggest that design instruction is saved for the end of the process as if it is an afterthought or purely decoration. Design issues are raised throughout the process and are certainly a part of all steps in the problem-solving approach. Design issues involve the presentation of content for a specific audience's use. As mentioned earlier, astronauts working outside the space station need large pictures and text to work effectively. Instructions must be designed with one step per page/screen to accommodate a larger font or image size as well as huge gloves. In this way, writers must provide comprehensive information in each step, all

while being succinct, so an astronaut would not have to continually page/move back and forth from step to step. The problem-solving pedagogical approach I just described is evident in each chapter of this book no matter what competency the PTC authors discuss in the pages to follow.

Audience Analysis and Purpose

Audience analysis is the primary competency PTC students must engage in if they are to become effective communicators on the job because it influences every other aspect of technical documentation, such as style, tone, organization, and design. In my own and many other instructors' experiences, students tend to skip the necessary audience-analysis work, mostly because it involves changing from an "I" to a "you" attitude, as both Jim Dubinsky (chapter 2) and Dan Jones (chapter 3) describe in their respective chapters. Switching viewpoints is challenging for students because past experiences in composition, for example, have shown them that prewriting activities such as invention heuristics, critiquing both strong and weak writing, and instructor comments on drafts are the means for getting started on writing or on designing projects. Once students understand the value of the "exigency of audience awareness," as Tharon Howard calls it in chapter 11, the more effective their documents or presentations will be. As a central tenet, audience analysis is the most important work of writing a technical document in that it is what lends credibility to the writing. When a document is well written, the work of the user can continue without interruption and without questions to a call center. The credibility of a well-written document is especially evident when translating documents for international audiences because understanding the culture of a communication problem, whether familiar or unfamiliar, is a necessary step toward writing and designing technical documents.

Information Design

Creating technical documents involves various aspects of the design process, including genre, visual cues, graphics, and information design. Part of solving the problem of the design of a document is conducting a genre analysis, choosing the appropriate genre, and shaping its design in ways that address the audience and situation. As a starting point, we might ask, What does the genre look like? How will it be used? What social action is it addressing? We might look at models, but we must be prepared to adjust the design as needed based on what we've

learned from other analyses as well as the situational requirements. Fundamentally, genre is a social, rather than an individual, process, a process that can help instructors fight the ivory-tower conception of writing most students harbor.

Design also involves examining how people use text and images to provide visual cues about a document's structure and organization, such as text, pictures, italics, boldface, type size, white space, and positioning of elements on a page—all of which should make it easier for the reader to find the needed information. These symbolic aspects of a document are important because technical documents are scanned, not read in their entirety. For example, when assigned a proposal or report on the effects of global warming, students must understand that different people will read the document in different ways. The executive will probably only read the executive summary, while a financial agent may only be interested in the budget. As such, the various areas of the report must use visual cues such as bolded headings or bulleted lists to designate different parts and use white space effectively in order to highlight important information such as facts and figures or graphics. Design is even more important when preparing documents for translation because credibility is an important factor: design expectations may differ depending on the culture. It is important to know, for example, what colors or images are appropriate to use. Design has become more centralized in PTC pedagogy because readers have become more visually oriented.

Design should not be separated from any other competencies when writing technical documents because it is as much a part of documentation as writing, so it's important to emphasize its rhetorical nature. For students, this competency may seem largely minor at first, but it is every bit as rhetorical as writing. The design of a document is not merely applying decorative characteristics as a finishing touch. Design should provide instruction to the user in ways that demonstrate how to read the document. In this way, it compels the user to act in a certain way and, therefore, should be emphasized throughout the course, not just in a special chapter or unit. Design decisions can mean the difference between the text being taken seriously or ignored. For example, choosing a font indicates the type of information presented. When the Higgs boson particle discovery announcement was made, the most significant scientific advance in forty years, it was marred by the use of the font Comic Sans, a childlike font typically used in informal situations. Using it to announce a formal, major scientific advancement gave the impression of frivolity and not the seriousness the situation called for. Design competency is addressed in both service and major's courses because technical

documents are not just written; they are designed to ensure readability, legibility, and usability. Readability refers to how easy it is for users to find the information they need, while legibility refers to a font's appearance and its ability to be deciphered. Usability refers to how well the document can be used to find what's needed. Everything about a document, or information design, is about how content is presented to an audience.

Content and Project Management

Whether the task is content management, or project management, students most assuredly spend a significant time managing their tasks, which Dave Clark in chapter 4 calls *content strategy*. Content strategy is a "movement," he says, that emphasizes single sourcing of content in ways that enable it to be used more than once and in more than one context. This management component then becomes a necessary part of work in the twenty-first century as workers connect large masses of information among various departments, all of which contribute to the overall content created for technical products. This information is "repeatable" in that it shapes information into repeatable blocks of content. Key to content strategy and its management is the use of "modular chunks" in topic areas that ensures they can be used in a variety of contexts, especially content written for translation. As a component of the problem-solving approach, content strategy involves completing a needs assessment, content inventory, and content audit—all of which involve situation, audience, and design analyses. Planning in these areas keeps students focused on writing as solving a problem.

Ethics and Style

Two competencies integral to the first three previously described—audience analysis, design, and management—are ethics and style. Ethics plays a role in all situations, including power relations, organizational structures, credibility issues, stylistic choices, content-management strategies, and genre choices. Sometimes ethical dilemmas can seem small and insignificant (e.g., stealing a pen from an employer) while other issues are major, affecting many people (e.g., ignoring warnings for faulty O-rings, such as with the *Challenger* disaster). Some instructors discuss ethics in a specialized unit while others include ethical discussions throughout the course as a part of each assignment. Because ethics cannot be separated from the rhetorical situation, engaging in its discussion throughout the term is pedagogically responsible.

I recommend that instructors research a local situation, bringing into class real documents and asking students to analyze them for ethical considerations. In 2002, while a graduate student at Michigan Tech, I used a novel about a global environment issue in conjunction with a case study about Torch Lake in the Upper Peninsula of Michigan in order to engage students in an ethical discussion involving a memo they were writing to an environmental-agency supervisor. Specifically, I have used Scott Russell Sanders's novel *Terrarium* as a context for assignments because it tells a dystopian story of a global environmental crisis that has forced humans to move inside gigantic, domed enclosures in order to protect them from the toxins of the earth. I used the Torch Lake case study alongside the novel because it had been designated by the Environmental Protection Agency as an Area of Concern due to its deteriorating water quality resulting from all the copper mining in that area. In preparation for an assignment, I asked students to discuss the ethics involved in both narratives. One student wrote that "Torch Lake is the exigency of *Terrarium*," meaning that if humans continue to pollute the water as demonstrated in the Torch Lake case study, they could end up in an enclosure as depicted in *Terrarium*.

Instructors might use the example memo in Stephen Katz's (1992) article "The Ethics of Expediency: Classical Rhetoric, Technology, and the Holocaust," or the memos provided in Carl G. Herndl, Barbara A. Fennell, and Carolyn Miller's chapter "Understanding Failures of Organizational Discourse" in *Textual Dynamics of the Professions: Historical & Contemporary Studies of Writing in Professional Communities* (Herndl, Fennell, and Miller 1991). As Katz says in his article, the memo he discusses, for all intents and purposes, is a good example of a well-written memo. However, it is ethically corrupt in that the memo is talking about human beings on one of the trains en route to concentration camps using a euphemism ("merchandise") to refer to them. Herndl, Fennel, and Miller analyze memos concerning the accident at Three Mile Island and the shuttle *Challenger* disaster. In both cases, they found that the accidents happened due to "misunderstanding and miscommunication" (279). One of the memos about the *Challenger* disaster and the faulty O-rings, for example, was not taken seriously because the author, a budget analyst at NASA, had only been with NASA for a few weeks. He was seen as a newbie without the proper training and knowledge because he lacked detailed data, quantified budget estimates, and subheads; used nontechnical language; and mentioned safety concerns in a budget memo, so he was regarded as an "outsider" (299–300). His memo was therefore dismissed. These memos are just a few examples

that have proven successful as examples of ethics in the technical communication classroom.

Another competency distinctly a part of audience, design, and management analysis is an embedded competency that is always present even when no one mentions it: style. Style refers to the choices we make when writing and designing a document. In his book *Technical Writing Style*, Dan Jones's (1998) definition of style can help us contextualize this competency: "Style is your choices of words, phrases, clauses, and sentences, and how you connect these sentences. Style is the unity and coherence of your paragraphs and larger segments. Style is your tone—your attitudes toward your subject, your audience, and yourself—in what you write" (Jones 1998, 3). Although Dan Jones also discusses style comprehensively for this collection, each author in this collection directly or indirectly addresses style issues because it is impossible to engage in any other competency without also addressing the stylistic issues that affect meaning, such as comma placement and sentence-level changes. Because technical documents almost always start with a definition, I like to begin the content of the course by asking students to write definitions. For example, using *Terrarium*, I ask students to write a definition of a term used in the novel. Students sometimes invent terminology within the context of the story, such as, "Retina Scan Sign is a device confirming comprehension of the Mating Ritual statues." Weaknesses in this definition include using vague language (*device*) and illogical connections (*how can you measure comprehension with a retina scan?*). Another student wrote, "The Intragaming System is a system in which players compete within a community." This definition is repetitive (*system*) and vague (*a community*). However, in the following example, a student wrote, "A belt transect quadrant is a measured and marked rectangle used in ecological studies to divide a larger section of land into smaller, equally sized subparts."This definition is more effective in that it properly identifies the type (*measured and marked rectangle*) and its difference from other belts (*used in ecological studies*) and uses exact language (*equally sized subparts*). Style, then, is a matter of making decisions about language use.

Style and ethics, as I see them, are issues of credibility. Credibility is, as Kirk St.Amant says in chapter 13, "what drives us" to present documents in ways that accurately address the culture of the audience, which is what determines what is and is not credible. If instructions are not clear, users will not use them. If information is buried, readers may miss important content. From both a style and an ethics perspective, if the design interferes with the reading of a document, users will ignore the document.

If an information graphic is duplicitous, the content might be regarded suspiciously. If a website shows bias toward a particular culture, users will click away from it. For example, the O-ring warnings to the manufacturers of the shuttle *Challenger* were presented in a text-heavy PowerPoint slide, buried within other, more informative information—as opposed to emphasizing this warning. It was easily missed or ignored. Attention to style always involves making ethical choices—major and small—and how these decisions are made determines the level of the document's (print or digital) credibility.

CHAPTER SUMMARIES

Instructors teaching technical communication tend to teach what's referred to as the *service course*, a course that mostly serves nonmajors. Because PTC service courses often constitute the required third writing course for STEM and other nonmajors such as criminal justice or aviation, emphasis on the situational and contextual aspects of writing in the workplace is, indeed, an important and appropriate stance to take in the classroom. Students who take PTC service courses, and even majors taking introductory PTC courses, have little to no knowledge about workplace writing and the dynamic contexts in which it occurs. They may be familiar with some workplace genres but will need convincing that audience and situational analyses are important and necessary. Altogether, the chapters in this collection constitute a term's course in action.

The chapters probably work best when combined; that is, you could ask students to write and design documents for an international audience and discuss the appropriate style and tone as well as the appropriateness of their designs based on the culture. You could ask students to write a set of instructions and engage in usability testing with other students on campus or analyze and create information graphics, all the while discussing ethical ramifications of word choice and instructional design. You might ask students to work on collaborative projects that require them to research an historical context such as Dombrowski's cigarette ads or Dubinsky's *Challenger* memos and discuss the cultural influences on language use. My own approach grows out of communities of practice theory; I ask students to read and interpret a narrative context (e.g., *Terrarium*) for assignments in ways that engage the social and ethical considerations of a particular culture, as I mentioned in an earlier section (see Bridgeford 2007 for further description). Any one of these assignments/approaches could then require students to present their information in class using slides. Although I recommend starting

with chapter 2 given its rhetorical focus on audience and situation, the chapters that follow do not necessarily need to be read in the order in which they appear. The chapter summaries that follow can help you decide where you want to start.

In the second chapter, James Dubinsky appropriately focuses on the rhetorical situation (audience, purpose, and situation). This rhetorical foundation is central for understanding basic concepts of technical communication. Through that lens, he models the rhetorical situation's influence through the presentation of three different analyses. Using the *Challenger* disaster as an example, Dubinsky examines three memos associated with the O-ring design and how persuasion plays a role in the writer's language use, the document's design, and the word choice. He then compares two position descriptions, demonstrating the importance of genre analysis and disciplinary knowledge. Overall, Dubinsky argues that the "disposition" of the rhetor is vital to the rhetorical situation in that it heavily influences the writing in important ways.

Style, the focus of Dan Jones in chapter 3, stresses the importance of teaching students about clarity, conciseness, courteousness, and persuasion in technical communication—all of which "make a difference in their success on the job." Jones's comprehensive approach, which can involve possible role-playing activities and assignments, begins with the essentials of style such as audience expectations, usage, and word choice. Emphasizing more advanced concerns, Jones then explores the "concept of discourse communities," which can help students understand the writing challenges they will face in their fields. Toward the end of his chapter, Jones argues for a more "advanced level" that enables students to explore the concept of discourse communities.

In chapter 4, Dave Clark begins with the task of defining *content strategy*, a term still in flux. Generally, Clark explains, content strategy is a combination of content delivery, content acquisition, content management, and content engagement—all characteristics of a process that involves connecting content to overall organizational processes and planning. Clark draws from various valuable resources available from practitioners to describe this relatively new approach. Technical communication, Clark concludes, can no longer take the "clear, singular path it once" did; it now involves an applied literature review, needs assessment, content inventory, content audit, and tool training—all important aspects of teaching content strategy.

Brent Henze, in chapter 5, differentiates between the "traditional approach" to teaching genre (i.e., introducing models with specific rules for layout and content) and the more current approach that emphasizes

genres as "social action." It's more pedagogically sound, he explains, to view genres from the theoretical standpoint that they are responses to social situations. In this way, he says, students learn to respond to writing situations in ways that require them to work out the appropriate genre and its characteristics for a specific situation. Henze sees genre theory and teaching genre as a way of "conceptualizing writing" as part of social context that requires specific responses. His approach is effective for teaching students the difference between formatting a particular genre and writing, designing, and creating an appropriate genre. "All writing," Henze says, "responds to prior communication," enacting a rhetorical situation.

Karla Saari Kitalong focuses chapter 6 on the state of information graphics, which has not received as much attention as it should have in pedagogical discussions. She then describes Stuart Selber's (2004) model of technological literacies (functional, rhetorical, and critical) and how they work together to help students develop more quantitative competencies. In this examination, Kitalong compares three textbooks' treatments, concluding that these textbooks' treatments "illustrate that their content has remained much the same" since 2007. Kitalong argues that it is important that "ethics . . . not be ignored in discussions about information graphics," which the major textbooks rarely do, often pointing to professional obligations and codes of conduct as constituting ethical discussions. She concludes by describing her pedagogical strategy for teaching information graphics using Selber's "multiliteracies approach" and the importance of critical-literacy practices with information graphics that require attention to citations to avoid "reader deception."

In chapter 7, Eva Brumberger encourages instructors to incorporate design principles into all aspects of a technical communication course as opposed to focusing on design only for a single unit or chapter. She sees design as a problem-solving process that affects all rhetorical aspects of a document because design "shapes users' interactions with an information product." She begins with a review of Gestalt principles that provide the foundation for design pedagogy and offers some activities and assignments for integrating design into courses. Throughout the chapter, she notes some useful resources for expanding instructors' knowledge about design. Designing a document, whether in print or digital mode, is a matter of, she says, "solving a communication problem."

In chapter 8, "Designing and Writing Procedures," David K. Farkas explains the fundamentals of procedures, focusing on the domain, system state, audience, and medium and modalities, key concepts for writing clear and concise how-to discourse. Using a fictitious teacher,

Farkas explains the best way to go about teaching each part of a procedure, offering pedagogical advice and exercises and assignments, which include attention to various modalities (e.g., paper, video, and audio). He concludes with advice on how to include all or parts of his discussion just in case time and length of class are factors. Farkas's chapter takes you through the writing of procedures using clear and specific examples that demonstrate effective instructional techniques. Farkas emphasizes that when writing procedures, there are many considerations of what types of visuals to use.

Emphasizing the importance of teaching ethics in technical communication classes, Paul Dombrowski in chapter 9 emphasizes that ethics should not be reducible to a single chapter or unit. He believes, and rightly so, that an expanded view is necessary. He offers a "primer" that can be weaved throughout a course, presenting three modules that emphasize important documents associated with a smoking advertisement, global climate change, and the shuttles *Challenger* and *Columbia*. His chapter encourages us to be "mindful" of the ethical dilemmas present in our field. Dombrowski addresses stylistic issues when he demonstrates his pedagogical method of rhetorical analysis and ethics that includes important perspectives such as the "ethical care of the writer" (to make clear what is being communicated) as well as the "ethical responsibility of readers" (to read and understand). This comprehensive treatment of ethics is vital to all other competencies.

In chapter 10, Peter S. England and Pam Estes Brewer explore the meaning of collaboration and the impact on learning that occurs when individuals work together. They argue that collaboration helps students become more engaged and that the learning that occurs through collaboration reflects workplace contexts. Their chapter recommends instructional methods based on the tenets of instructional design as well as technical communication education. They also include recommendations for using, managing, and assessing collaboration in the technical communication classroom. Through carefully crafted examples from each of their own classes, England and Brewer provide vivid observations of teaching collaboration in action.

While taking the reader through the basics of usability testing in chapter 11, Tharon Howard argues for the need to focus "explicitly on integrating user-centered design processes" by incorporating usability testing into assignments. He takes the reader through five phases of usability testing, which include (1) establishing research questions, (2) planning, (3) collecting data, (4) analyzing and coding data, and (5) writing a recommendation report. Usability testing, he says, is a

"mainstream skillset" necessary for students in technical communication classes. He identifies useful guides, both in print and online, for learning more about usability testing, fulfilling a "credibility gap" that helps technical communicators develop confidence not only in the classroom but also in the workplace.

In chapter 12, Traci Nathans-Kelly and Christine G. Nicometo describe presentation techniques for use by instructors of STEM students, instructional approaches for convincing students (and peers) that these techniques are valid, and an alternative method to bullet-heavy presentation slides. Along with examples of these adaptable methods, the authors describe hand placement, laser pointers, and eye scanning. The last part of their chapter addresses agile best practices for slide use that involve using complete sentence headers, bigger and better visuals, and speaking notes. They offer sound advice through engaging examples, encouraging instructors to teach students to "make the most of slide acreage" by using one complete sentence and one image per slide and by using the notes section for all of the text. I've adopted this practice in my own and students' presentations and have experienced success in doing so.

In chapter 13, Kirk St.Amant focuses on international and intercultural communication, an important aspect for today's technical communication courses because students, whether they plan to work as technical communicators, engineers, or in some other job, will likely be creating artifacts "for individuals from other cultures." He describes a pedagogical approach he calls "comparative online analysis of cultures (COAC)" that uses heuristics to help instructors focus students' attention on two factors specific to international communication: credibility and usability. He offers advice on how COAC works in the classroom and demonstrates it with various assignments. His pedagogy can be used in any technical communication course. He argues that "culture and credibility are (inter)connected" in that the higher the credibility, the more likely readers/users are to pay attention; "It drives us," he says. Even more important is his point that credibility is not inherently a part of any document (print or digital). It is taught through culture, which determines what is and is not credible.

Suggested Readings

If you are interested in learning more about the history and practice of technical communication pedagogy, I recommend you start with the following two collections:

Johnson-Eilola, Johndan, and Stuart Selber, eds. 2004. *Central Works in Technical Communication*. New York: Oxford University Press.
Johnson-Eilola, Johndan, and Stuart Selber, eds. 2013. *Solving Problems in Technical Communication*. Chicago, IL: University of Chicago Press.

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