

INTRODUCTION

Innovative Approaches to Teaching Technical Communication

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The idea for this collection grew out of a discussion about humor in technical communication. Humor is usually proscribed in technical communication practice, both because it does not cross cultures well and because it may make complex and even dangerous technologies seem frivolous. When the three of us started paying attention to and collecting humor related to the technical communication field, we noticed that it is most often connected to Dilbert cartoons, the For Dummies genre of third-party software manuals, and Dave Barry–like rants about poorly written instructions. In short, the available humor about technical communication doesn't paint a pretty picture of our chosen profession.

Because we enjoy playful attitudes toward technical communication, we put aside the field's reservations about humor and began to ask ourselves how we might incorporate humor into our technical communication classrooms. Under what circumstances, we wondered, might humor be permissible or even desirable? How might it be used productively in the technical communication classroom?

In exploring that question, we concluded that perhaps what we were really talking about was how to demonstrate to technical communication students how *creative* the field could be. We were all teaching at Michigan Technological University at the time and had begun to notice that many students seemed disillusioned with the prospect of beginning their careers as *traditional* technical communicators. Writing instructional manuals for the computer industry or documenting ISO 9001 procedures for a government contractor seemed as dull as Dilbert's cubicle to them, especially when juxtaposed against the seemingly glamorous career prospects of Web or multimedia design. We didn't agree with them; in fact, our technical communication work as teachers, practitioners, and

consultants has shown us its creative potential. For us and for the discipline at large, rendering complex information accessible and usable to an intended audience is interesting—even, at times, exhilarating. We wanted students to see that technical communication frequently involves creative effort, whether the project is a 500-page printed instruction manual or a digital media production. In other words, we were *not* willing to make the technocentric distinction many students seemed to be making between dull, document-based information and exciting, digital-media development.

Naturally, our first inclination was to blame ourselves. Had something about our previous teaching practices predisposed students to make unwarranted distinctions between project types? We thought we had carefully crafted our technical communication course assignments to show that the skills needed to design an interactive multimedia kiosk (a task students valued highly) were equally applicable in assembling a high-quality, well-indexed, and smoothly cross-referenced documentation set (a task many dismissed as boring). But somehow, our convictions were not getting through to them; moreover, another important idea that we wanted to emphasize—that success in all types of technical communication work necessitates strong and versatile writing skills—was apparently also lost on some undergraduate students. Imagine our chagrin when a graduating senior stated the opinion to one of our colleagues that writing is *retro!*

To impress our values on students and to convince them of the innovative practices available to technical communication professionals, the three of us developed a special topics course—Innovative Approaches to Technical Communication—which we offered to undergraduate scientific and technical communication (STC) majors at Michigan Technological University during the winter quarter 1997–1998. Our syllabus characterized the course as a way to engage more fully with the profession of technical communication by “considering a variety of attitudes, approaches, and practices.” In the course design, we shifted students’ attention (and our own) toward a more inclusive and creative view of the profession of technical communication. Course units advocated and modeled approaches that might not ordinarily be considered in technical communication. Students wrote, of course, but they also composed in other modalities such as mapping, drawing, scripting, acting, pantomiming, and MOOing. They read a variety of texts, including

challenging theoretical texts not commonly assigned to undergraduates: Marilyn Cooper's (1996) *Technical Communication Quarterly* article on postmodern operator's manuals, James Porter and Patricia Sullivan's (1996) work on postmodern mapping, David Dobrin's (1989) "Armadillo Armor" article, and some articles on play theory (Huizinga 1990). To help students make the desired connections between their prior technical communication education and these new ideas, we assigned Janice Redish's (1988) "Reading to Learn to Do" article, Dorothy Nelkin's (1995) work on media representations of science and technology, and an excerpt from Robert Pirsig's (1974) *Zen and the Art of Motorcycle Maintenance*. To the stack of theoretical readings, we added newspaper editorials and articles about product assembly (Rooney 1997; Perelman 1976); cartoons from the Dilbert Zone (see www.dilbert.com); technology ads from popular magazines (Miller 1997) Will Weaver's short story titled "A Gravestone Made of Wheat" (1990); even some government documents—the Declaration of Independence and the Equal Rights Amendment.

The process of developing the reading list and the activities and techniques that went along with it ultimately reinforced our belief that the inspiration for our work as technical communication educators could come from almost anywhere, that our work could be as creative as we would allow it to be, and that we could approach the teaching and learning that goes on in technical communication courses in a variety of ways and from a variety of problem-solving perspectives. As we shared this discovery about teaching with students, they too came to realize that many theories, cultural artifacts, and issues could and should influence the work they do as technical communicators.

The learning that took place in the class does not represent a major paradigm shift in our students' thinking. But we are convinced that each student took away something profound. For example, one day, after reading a play theory essay and discussing the value of designing work spaces to facilitate playful interaction as well as serious labor, we each mapped our ideal work spaces. Michelle's included a desk for her best friend, collaborator, and longtime roommate, Jen, who had recently graduated and moved away. When Michelle shared the map with the rest of the class, she seemed a bit embarrassed by her dependence on her friend, and she hastily acknowledged the reality that she and Jen would never again work together. "Jen's desk" in a corner of Michelle's ideal

work space stands as a metaphor for the lasting and palpable influence of a successful and pleasurable collaboration. Jen was not lost to Michelle: although she lived in another city and had chosen a technical communication career path that diverged from Michelle's, she would always be present in Michelle's work practices and habits of mind.

DEFINING TERMS AND ASSUMPTIONS

Program Names. Program naming conventions vary from institution to institution. Sometimes names signal the presence of deep and often contentious disciplinary boundaries. For instance, at some colleges, *communication* is a reserved title; its absence in English departments' course and program names may point to disciplinary turf wars. When we name our programs—technical and scientific communication, professional communication, professional or technical writing, business communication, and many others—we signal our institutional as well as our disciplinary allegiances. At base, though, the names are irrelevant. The editors of this collection are convinced that the techniques, approaches, technologies, and assignments suggested in this volume will transfer to programs across the disciplinary spectrum. Teachers in all these programs will find the materials described in this volume quite valuable.

That said, we assume that all teaching is highly contextualized and that the pedagogical explorations represented here will need to be adapted to the institutional, instructional, and material conditions that exist in each program and in each classroom. We hope that readers of this volume will not stop with the ideas and approaches presented herein, but will be inspired to continue to explore and test pedagogies from a variety of sources. One of the strengths of our diverse, but still related, disciplines is that we make it a point to attend carefully to the changing literacy practices that surround us, in academia and in society at large.

Critical. We use the term *critical* advisedly; the word and its seemingly commonsense derivations—critical reflection, critical pedagogy, critical thinking, critical approach—all carry a good deal of theoretical baggage and deserve to be, well, considered critically. However, we think that a critical approach to technical communication can yield quite practical results. In this volume we assume that *critical approaches* include any thoughtful, rhetorical, and culturally founded application of a technical communication process, practice, or approach to projects or documents (print and digital).

Innovative. Its prominence in the title of this collection makes *innovative* the term that most demands a common understanding. For us, to *innovate* means to introduce a new idea or to reintroduce an old idea, perhaps in a new way or in a new context. In this collection, then, an *innovative approach* is one that introduces, rearticulates, or creatively juxtaposes theories or practices, especially those not currently or commonly used within the context of technical communication teaching.

Some of the approaches described in this collection are unusual in technical communication pedagogy, curriculum development, or program design, even though they may be commonplace in other disciplines or contexts. Other approaches may be common in technical communication, but for some reason have not been published or otherwise officially entered into our professional discourse. The number of responses we received to our call for essays (almost three times as many as are included here) confirmed for us that innovative practices abound in technical communication classrooms, programs, and curricula.

To elicit the accounts of innovation we knew were “out there,” we encouraged the authors to approach this collection as a way to share their most innovative instructional ideas, and we encourage readers to approach it as a catalyst for innovation in their work. We have asked authors to converse with their colleagues—the readers of this collection—by writing relatively short pieces that concisely but thoroughly describe their innovative activity or project in ways that allow readers to visualize implementation within a range of institutional contexts. We have also asked the authors to concentrate on the positive aspects of their approaches without sacrificing a critical discussion of problems posed by or reflected in their approaches, so that readers can more accurately project how approaches that appeal to them might fit into their institutional contexts.

THE THEORETICAL NEED FOR INNOVATION

From plain style to instrumental discourse to social constructivism and rhetoric, theoretically informed pedagogical discussions in technical communication have consistently focused on how best to prepare students for work (see, for example, Harris 1982, 630). This collection is timely and necessary as we consider our pedagogical responsibilities for preparing students for work now—at the beginning of the twenty-first century. Our thinking about pedagogy and the need for innovation

(and hence, the selection of chapters for this volume) grows out of our reading of Etienne Wenger's (1998) *Communities of Practice*; Mary Sue Garay and Stephen Bernhardt's (1998) *Expanding Literacies: English Teaching and the New Workplace*; and James Paul Gee, Glynda Hull, and Colin Lankshear's (1996) *The New Work Order: Behind the Language of the New Capitalism*. From different perspectives, each of these books emphasizes the important aspects of what work means, as well as what it means to prepare students for work in the twenty-first century.

Although the new work order does not excuse students from developing an understanding of the forms of technical communication and how to execute them, Gee, Hull, and Lankshear (1996) point out that in this emerging work landscape, much more extensive and intensive literacies are expected than ever before. In essence—and this belief is something the technical communication discipline has known and accepted for a while—students' success depends on a commitment not only to classroom learning but also to lifelong learning. Workers in many fields can no longer consider their education to be complete upon graduating from college; today's college students need to develop learning strategies they can draw on throughout their careers, especially if they work in intensive, high-technology fields.

But, according to authors like Wenger, Garay and Bernhardt, and Gee, Hull, and Lankshear, a commitment to lifelong learning is just the tip of the proverbial iceberg. Students need, as well, to be able to respond quickly and effectively to continually changing local and global conditions and to rapid and unpredictable technological advancements. They need to develop and sustain a repertoire of learning and information management strategies and to reflect critically upon their choices and actions. In this environment, mastery of the forms and typical genres of technical communication is still necessary but is far from sufficient as a prerequisite for success in the new work order.

In short, as technical communication faculty, our charge to prepare students for work is complicated by the exigencies of the new work order. Our pedagogical practice is further complicated—and our job rendered perhaps even more important—in the wake of national and international events that swirl around us as this book goes to press. We are currently witnessing twin economic challenges—the volatility of high-tech industries and the upheaval of war and terrorism—that necessitate an attitude of innovation as an integral part of the technical

communication teacher's toolkit for the classroom because it models the attitude of innovation that students need for *their* toolkits for the workplace.

We think you'll see that the *Innovative Approaches* authors—each in his or her way—focus on issues such as lifelong learning, the need to build workplace communities, changing workplace conditions, the globalization of technical communication work, and the increasing literacy demands being placed on technical communication practitioners.

ABOUT THIS COLLECTION: RESPONDING TO THE NEED FOR INNOVATION

Innovative Approaches to Teaching Technical Communication grows, then, out of students' apprehensiveness about their career paths, our efforts to understand the vagaries of the twenty-first century workplace, and our observation that many theoretical and disciplinary perspectives can *potentially* inform technical communication teaching, program administration, and curriculum development. Given pervasive changes in technology, the workplace, and cultural attitudes, new, dynamic, and flexible pedagogies seem warranted. *Innovative Approaches to Teaching Technical Communication* begins to address this need by demonstrating for technical communication faculty, graduate students, and program administrators the value of interrogating and innovating classroom and programmatic practices. The chapters were selected to highlight activities, projects, and approaches that have not been documented extensively in publications about technical communication teaching, curriculum development, or program administration. This book, therefore, offers the discipline another opportunity to energize its pedagogy and to critically examine current teaching practices.

The approaches described in this collection are practical, readily adaptable to a range of technological and institutional contexts, theoretically grounded, and pedagogically sound. They bring together a variety of scholars/teachers who expand an existing canon of publications about teaching technical communication (Fearing and Sparrow 1989; Selber 1997; Staples and Ornatowski 1997). Three objectives helped structure this collection. We wanted to

- capture a range of pedagogical perspectives that can inspire and invigorate technical communication teaching,

- present a variety of inventive, critical pedagogical practices for the technical communication classroom, and
- emphasize an array of partnership possibilities in technical communication pedagogy.

Using this framework, we looked for essays that demonstrated innovation in pedagogical perspectives, practices, and partnerships. We see this collection as broadening and making publicly accessible conversations already occurring in hallways, in faculty lounges, on listservs, and at conferences, but—for one reason or another—have not yet been made public. We hope that you will find as much inspiration in reading the pages of this book as we did in compiling them.

This collection is framed by the need for innovative pedagogical and curricular approaches that consider new perspectives, that describe new types of practices, and that exemplify new ways of establishing partnerships with industry. In each section, the authors think about and enact their pedagogical approaches by describing new ways of working and new strategies for adapting to changing workplace conditions.

Part One: Pedagogical Perspectives

The authors of these six chapters highlight and blend theories common to technical communication contexts with theories of technology, service learning, interdisciplinary and multicultural communication, and social interaction. Each chapter encourages reflective practices for both students and teachers. The approaches share the potential to foster in students the ability to think on their feet, to be flexible, and to respond to the needs of real audiences and clients.

In this section, six authors describe various perspectives for thinking about technical communication pedagogy. In the first chapter of this section, James Dubinsky examines the concept of service in a technical communication program and works toward a critical redefinition of that contested term. Sam Racine and Denise Dilworth describe an interactive television course in which they, together with their students, interrogated the television classrooms and technological systems that provided the context for their teaching and learning. Addressing the ever-increasing awareness of multicultural audience, Elaine Fredericksen showcases a bilingual professional writing program that capitalizes on students' fluency with both English and Spanish, thereby benefiting audiences and participants alike. W. J. Williamson and Philip Sweany explore the

potential of discipline-specific service learning in technical communication as a general pedagogical theme and as an administrative innovation. Jeff Grabill writes about implementing and especially about sustaining a cross-curricular service-learning project in an urban university. Kathleen Yancey and her eleven colleagues from Clemson University describe the process of negotiation they went through in constructing their graduate reading list. Each of the chapters in this section energizes and enriches the paradigms to which we have become accustomed in technical communication.

Part Two: Pedagogical Practices

One of the chief concerns in technical communication has always been how best to teach it. In the classroom, theory and practice converge, each informing and shaping the other. Teachers often say that their classroom practices are affected by the theoretical landscapes they inhabit; in turn, their perspectives are borne out in the types of courses that they construct. Similarly, a particular theoretical innovation often grows out of effective, consistent classroom observations: teachers develop theories based on the types of activities they design, the classroom interactions they facilitate, and ultimately the students' reactions to their exploratory practices.

In this section of the collection, we draw together six chapters whose authors make a conscious effort to demonstrate the strategic interplay between theory and practice in their classrooms. They employ narrative, dramatic, genre, medical, cultural, and visual theories to inform their technical communication teaching. Each of the authors who contributed to this section has been careful to provide not only specific information about his or her particular theoretical perspective and how it plays out in the classroom but also to illustrate how the theories can be applied to other institutional contexts and adapted to individuals' own particular theoretical leanings. Tracy Bridgeford argues that using narrative ways of knowing enables students to more effectively understand and enact decision-making practices in technical communication contexts. James Kalmbach's chapter revisits the classic resume assignment in light of and in response to multiplying technological contexts. Barry Batorsky and Laura Renick-Butera describe their use of Brecht-inspired role-plays to foreground rhetorical problem-solving strategies. Karla Saari Kitalong suggests that the analysis of media representations

can afford students an enhanced awareness of audience. Michael Zerbe employs cultural studies methodologies to help students gain a fuller and more critical understanding of medical communication. Dickie Selfe collaborates with his students to create technology-rich teaching environments informed by students' technology autobiographies.

Although some of these theoretical perspectives may sound familiar, these authors adopt unusual vantage points that promise to illuminate in new ways the study and teaching of technical communication.

Part Three: Pedagogical Partnerships

Academic technical communication programs are under constant pressure to develop and sustain mutually productive relationships with industry. There are many good reasons to establish such partnerships, not the least of which is to create a network of people who may hire students for internships and professional jobs. If, as conventional wisdom would have it, most job offers come as a result of a personal connection, then students' success in the job market may be enhanced by the corporate relationships that we cultivate. Moreover, as guest speakers, industry representatives can bring the atmosphere of the workplace into our classrooms, giving students—especially those with limited workplace experience—some insight into what is important in the so-called real world.

Industry partnerships can be helpful to financially strapped institutions, as well. Sponsored research projects, endowed chairs, equipment donations, and other financial or material collaborations often begin when individuals team up to work on projects, even if such projects are not directly focused on developing an industry-academia partnership. Finally, research in collaboration with corporate clients can lead to mutually beneficial experiences for companies and universities alike.

In Section 3, "Pedagogical Partnerships," seven authors describe a variety of frameworks for creating productive and long-lived partnerships with industry, describing and theorizing research in and around corporate settings to help readers make sense of this difficult and politically sensitive area of concern.

Stan Dicks and Brad Mehlenbacher write about engaging students in the usability testing of their campus's extension service Web pages. Craig Hansen suggests that service-based learning experiences—in conjunction with guided, critical reflections—are key to bridging practice

and theory in technical communication. Christine Abbott explains a collaborative technical communication institute that brings together students, university faculty, and technical communication practitioners in an opportunity that blends theory and practice, study and networking. Annmarie Guzy's college-level technical communicators and Laura Sullivan's high school students come together in an online technical communication learning activity that has ramifications beyond the shared classroom experiences. Gary Bays reports on his interviews with corporate recruiters, during which he learned some strategies for initiating and sustaining workplace research projects that benefit both academia and industry. Billie J. Wahlstrom suggests that emerging venues for technical communication instruction demand that faculty develop new skills and new ways of envisioning instruction—what she calls “extreme pedagogies.”

The idea of bringing together resonates throughout this section, as teachers, practitioners, corporate representatives, and students meet to share ideas and resources. The editors gratefully acknowledge the anonymous readers who reviewed this manuscript during its development period. Their careful and constructive comments allowed us to build on the strengths of the collection and minimize its weaknesses.