

# Reaching Out Incorporating the Borders that Inscribe Us

# 2003

**Conference Proceedings**  
**30th Annual Meeting of the Council for Programs in**  
**Technical and Scientific Communication**  
**October 24, 2005**  
**Clarkson University**  
**Potsdam, New York**



# About CPTSC

The Council for Programs in Technical and Scientific Communication (CPTSC) was founded in 1973 to promote programs in technical and scientific communication, promote research in technical and scientific communication, develop opportunities for the exchange of ideas and information concerning programs, research, and career opportunities, assist in the development and evaluation of new programs in technical and scientific communication, if requested, and promote exchange of information between this organization and interested parties.

## Annual Conference

CPTSC holds an annual conference featuring roundtable discussions of position papers submitted by members. The proceedings include the position papers. Authors have the option of developing their papers after the meeting into more detailed versions.

## Program Reviews

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## Website

CPTSC maintains a Web site at <http://www.cptsc.org>. This site includes the constitution, information on conferences and membership, a forum for discussion of distance education, and other organizational and program information.

## About the 30th Annual Conference

The 32nd Annual conference was held at Clarkson University, Potsdam, New York.

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## Proceedings

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# Conference Schedule

## Thursday, October 2

2:00–7:00	Registration	Suell Hall Atrium
6:00–7:15	Opening Reception	Clarkson University Outdoor Lodge
7:30–8:30	Keynote Address	Barben Rooms
	<b>Out of Bounds: Identity, Membership and Ideology</b> Anthony Paré, <i>McGill University</i>	Cheel Campus Center

## Friday, October 3

8:00–9:00	Registration and Continental Breakfast	Suell Hall Atrium and Eastman Kodak CEC
9:00–10:15	Plenary Panel	Suell Hall 213
	<b>Program Development and Definition</b> Sandra Harner, <i>Cedarville University</i> Robert R. Johnson, <i>Michigan Technological University</i> Kenneth T. Rainey, <i>Southern Polytechnic State University</i> Carolyn Rude, <i>Virginia Tech</i>	
10:15–10:30	Break	Suell Hall Atrium
10:30–4:45	Posters on Display	Suell Hall Atrium
10:30–4:00	Book Exhibit	Suell Hall
10:30–11:30	Concurrent Session 1	Suell Hall
11:30–11:45	Break	
11:45–12:45	Concurrent Session 2	Suell Hall
1:00–2:15	Lunch	
2:30–3:30	Concurrent Session 3	Suell Hall
3:30–3:45	Break	
3:45–4:45	Reception	Barben Rooms
6:30–7:30	Annual Banquet and Live Music	Barben Rooms

## Saturday, October 4

9:00–noon	Annual Business Meeting and Continental Breakfast	Barben Rooms
12:45–8:30	Lake Placid Tour or Adirondack Hike	Leave from Cheel

# Keynote Presentation

## Out of Bounds: Identity, Membership, and Ideology

Anthony Paré, *McGill University*

*Keywords: society, culture, social theory*

The boundary metaphor chosen for this meeting is rich and fruitful. In Frank Smith's lovely phrase, metaphors are "the legs of language," and judging by the session titles, many of us enjoyed running with the image of borders and boundaries while we prepared our presentations. Certainly those images were powerful heuristics for me as I thought about my work and my talk here tonight. My research is currently focused on the transition from school to work—a boundary crossing if ever there was one—and my theoretical support, largely based on Vygotsky-inspired theories of human activity and practice, fits nicely within the metaphor of borders. Within confined space, we can conceive of temporal and social limits to activity, of local customs and practices, of similarities or unities in purpose, belief, and concern. In our efforts to understand the relationship between the individual and the group—the old micro-macro problem—we have found the notion of collectives useful: we speak of communities of discourse, communities of interpretation, and communities of practice. Here, within what appear to be discernible boundaries, human agency is provided a finite context, a place of affordances and constraints, of rules and possibilities. Here there are zones in which we might develop, aided by more adept practitioners, as our mastery and sense of membership grow.

In this talk, I will be extolling the virtues of those Vygotsky-inspired social theories because I think they offer us powerful new ways to think about what we do as students and teachers of communication. And I will draw on my research into the school—to-work transition to illustrate how those theories have helped me and my research colleagues anticipate and understand the experience of new practitioners.

But I also want to push past the social to one of Vygotsky's key terms—culture—and I want to do that because something

happened to me when I started working on my original idea for this paper. That idea, summarized by my original title, was that knowledge, like other social capital, must be exchanged at borders, not for something completely different, but for a variation or version that is acceptable where you have arrived. And, to bring the metaphor painfully close to reality, exchange rates mean that currency in one location doesn't necessarily have the same value as it does across the border. So, I wanted to argue that one has to re-situate or revise knowledge in the passage from one place to another, and I will, in part, make that argument tonight, but—surprise, surprise!—another idea grew up as I wrote. I began to realize that much of what we were seeing in our research was not explainable by reference to activities or practices or other social dynamics, but seemed to come from a deeper source, that I am calling "culture."

To begin my attempt to explain what I mean by that, I want to tell a story I've told before, so I apologize if you've heard it. It's a shaggy dog story, but not the genre you might expect.

### A Shaggy-Dog Story

On a number of occasions, I've had the extraordinary opportunity of working with a group of Inuit social workers from arctic Quebec. While serving as frontline workers along Hudson Bay and Ungava Bay, these women—so far, they have all been women—are enrolled in McGill's Certificate in Northern Social Work Practice.

My work with them has focused on communication, particularly writing, because they must produce official documents of various sorts and—for a number of reasons—find the task intimidating. In one session, I started by asking them to write about some aspect of their lives in the far north—something I wouldn't know about. You will all recognize this as my attempt to

put them in the role of an expert writing to a less expert reader—a pedagogical ploy that seeks to reverse the usual classroom imbalance of expertise and to more closely imitate workplace writing situations.

The workers wrote about making bannock, sewing sealskin boots, ice fishing, and other traditional Inuit activities. One woman, Marta, wrote about trimming parkas and mittens with dog hair. She stood beside me as I read her description, eager for my approval. I said it was clear, detailed, and I could probably now do it myself, except the description lacked two bits of information: what tool was used to cut the hair, and how was the dog held still during the cutting? Marta looked at me closely, took my pen, and wrote on the bottom of her paper: “It’s a dead dog.”

When we could stop laughing, we told the others, and Angie—another worker—went back to her recipe for *misiraq*—a dip made from beluga whale fat—and wrote “step number one: shoot a beluga.”

I have told this story many times because it captures for me the difficulty of understanding the Other, of seeing or experiencing the world through another’s eyes. It also suggests, however, the possibility of learning about the Other, of coming to appreciate another’s experience through communication. With Marta’s help, with practice, and with a sufficiently motionless dog, I could probably master the practice of trimming mittens and parkas. And if I lived long enough among the Inuit, I would learn to participate in their other collective activities.

Social theories of activity and practice can explain how and why that learning would happen, but there is a second part to the dead dog story that I don’t think they account for.

### **From Society to Culture**

After the initial laughter had died down, the workers spoke animatedly to each other in Inuktitut—a language I do not speak—and they laughed again. Eventually, and I thought, perhaps a little reluctantly, one worker explained what they were speaking about: apparently, when a white person’s dog goes missing in the north, all the white folks look to see who among the Inuit has a

new parka or mittens. According to the workers, they sometimes have reason to do so. This is just one of many examples of the mistrust and difference that separates the Inuit from the white southerners with whom they live and work.

And although social theories can help us grasp the surface behavior and dynamics of collectives—as I said, I could be taught to trim parkas or sew sealskin boots—I believe we need to go below the level of systems and practices to something deeper if we really want to understand group behavior and belief.

As I’ve said, I think that deeper place is culture. I realize that the word “culture” is problematic, but by using it, I wish to evoke something more profound than society, something that moves under the surface of our collective structures and systems and practices. I would like to argue that society is what we lay down on top of culture—the way boundaries are overlaid on earth. Margins and borders are social artifacts, artificial or arbitrary demarcations that often obscure or divide a more profound coherence, as the Kurds and others could tell us. Society is deliberate, conscious, overt; culture is primordial, tacit, invisible. Society often controls culture by imposing order and agreement, by formulating laws and rules and regulations. Society is surface structure; culture is deep structure. If society is civil, culture is tribal; if society is inclusive, culture is exclusive. Society mitigates and mediates culture.

I will return to this deeper influence and belief toward the end of my talk, because I would like to end with what I believe are the challenges that culture sets for us as teachers and researchers, but I first want to extol the value of contemporary social theory, and to describe the ways it has helped my colleagues and me understand the border-crossing experience of new practitioners.

### **Brief Summary of Research**

For 20 years now, I have been interested in how social workers become professionally literate—that is, in how they learn to engage in the infinite range of rhetorical activities they may find themselves in after graduation. There is little explicit writing

instruction in schools of social work, so new practitioners must immerse themselves in literacy practices when they arrive in the workplace. What I quickly realized when I started to follow graduates into their first jobs was that learning to *write* like a social worker was inseparable from learning to *be* a social worker—that is, professional literacy was not apart from the rest of practice, and could not be studied as a discrete activity. So, for the last few years, along with a multi-disciplinary team of colleagues, I have been studying the school-to-work transition in four fields: education, social work, physiotherapy, and occupational therapy. Our questions are broad [Slide #2]:

### Questions

- What is the relationship between classroom and field education?
- What happens during field education?
- What field experiences are most effective/influential/formative?
- How is initial practice different from field education?
- What are the most difficult aspects of initial practice?

And so on. We want to know how newcomers *become* practitioners. In an effort to answer our questions, we have employed a variety of methods [Slide #3]:

### Methods

Four year study

Interviews with:

- students in their final practicum
- students' supervisors
- first & second year practitioners
- supervisors
- focus groups within and across professions

### Social theories

- Our questions and our methodology are shaped, of course, by our theoretical framework, that comes from social theories of human activity and practice, as I've said. Those perspectives have shifted our

understanding in a number of important ways; they have moved us [Slides # 4 & 5]:

- **away** from a view of knowledge as fixed, universal, and generalizable;
- **toward** a view of knowledge as shifting, dynamic, local, and provisional;
- **away** from an understanding of cognition as mental processes;
- **toward** a conception of cognition as a social, collective, and distributed activity;
- **away** from view of learning as accumulating discrete skills and context-free knowledge;
- **toward** a view of learning as the increasing ability to participate in collaborative practices;
- **away** from a view of communication as the unproblematic exchange of information;
- **toward** a view of communication as an arena of conflicting visions and values.

Because of these shifts, we no longer think of knowledge as content, or communication as a set of skills; we see both as activities. And we don't think so much of *acquiring* knowledge and language as of *joining* them—or, at least, of joining groups who engage in and deploy knowledge and language in particular ways. These new conceptions have been extremely helpful in our research by allowing us, in effect, to go over old ground with new maps. We have re-examined the transition from school to work and the initial years of practice from the expanded perspective of these new theories, and I'd like briefly to describe some ways they have helped us understand our data.

### Activity Theory

One of the most elaborated explanations of social dynamics within which knowledge and communication operate is Activity Theory, as it has come down to us from Vygotsky (1978, 1986) via Engeström (e.g., 1987, 1993, 1999) and others (e.g., Leont'ev, 1981; Wertsch, 1981, 1991; Cole



& Engeström, 1993). The theory begins with Vygotsky's central premise that our experience of and interaction with the world are mediated by cultural artifacts—from simple tools to elaborate philosophies and complex symbol systems—including language, that Michael Cole (1991) called “the master tool.” Of course, some experiences seem more immediate than others—that is, they seem un- or less-mediated—such as heat and cold, hunger and thirst, physical pain and aging, but beyond biology we have the infinite tools and signs of social life. Engagement with those tools and signs, particularly as they are deployed within specialized activity systems, shape the ways we see, act in, and think about the world.

I'll explain how this theory has helped us make sense of the transition into the workplace by drawing on the now-famous heuristic that Engeström and others have used to explain the complex workings of activity systems, in this case the activity system of school.

We can contrast this with the activity system of work. By comparing school activity systems with workplace activity systems, we can begin to understand the difficulties experienced in the passage from one to the other.

### Points to make:

- Differences in activity system rules: e.g., cheating at school is collaboration at work
- Different divisions of labor: shared thinking; working *with* others
- Diffuse, flat community versus well-defined, hierarchical community
- Big switch from objects to artifacts: from studying theory to applying it

### COP

Closely related to the concept of activity is the idea of practice as found in Jean Lave and Etienne Wenger's ideas about communities of practice (Lave, 1991; Lave & Wenger, 1991; Chaiklin & Lave, 1993; Wenger, 1998), a concept most fully explained in Wenger's 1998 book, *Communities of practice: Learning, meaning, and identity*.<sup>1</sup> I strongly

recommend the book to those who haven't read it, particularly Wenger's introductory chapter and its accompanying notes, that offer a wonderful overview of social theories. Lave and Wenger's work has had an important influence on our research; in particular, two concepts closely associated with theories of activity and theories of practice stand out: the notion I mentioned a moment ago—that of distributed or shared cognition and the phenomenon of situated learning. We have found these ideas extremely useful in our understanding of the difficult passage from school to work.

### Distributed or Shared Cognition

One critical way that cognition is shared in workplace contexts is by having many people think about the same task in different ways. One of the most intriguing examples of this is Hutchins' (1993) description of docking a ship in San Diego harbour, a task that takes a team of six. Each team member is focused on that common purpose, but each uses different tools and signs, each performs unique actions, and each has a synergistic relationship with the other team members. In our work, we have seen something similar when students in social work, physiotherapy, and occupational therapy join multi-disciplinary teams in hospital settings, where what is known as a “bio-psycho-social approach” focuses on the whole patient from the perspectives of each team member's areas of expertise. The collective and complementary thinking processes involved in this sort of distributed task are quite different from the intellectual activity required at school.

Workplace cognition is also distributed into tools and signs; that is, we think through and with the mediational means at our disposal. I'll give you only one example, but it is, I believe, a powerful and relevant example: in social work, many workplace texts have standard formats, with set headings that indicate the appropriate information to include in each section of the document. The text, of course, is an historical artifact into which the community's thinking has been distributed. A new practitioner shares in that thinking when she deploys the text. In effect, the text does some thinking for her. As Michael Cole

(1991) said, “the border of the mind cannot reasonably be drawn at the skin” (p. 413)

We have been surprised again and again by the way that workplace newcomers have learned to participate in complex activities and practices, and—as I’ve mentioned—we have found the most helpful explanations of this in the literature on situated learning (e.g., Rogoff, 1984; Lave & Wenger, 1991; Resnick, 1991).

<sup>1</sup> Bourdieu’s discussion of practice (e.g., 1972/1977) complements Lave and Wenger’s.

## Situated learning and LPP

Particularly helpful has been the notion of Legitimate Peripheral Participation (LPP) and the description offered by Lave and Wenger (1991) of the gradual immersion of newcomers into full, professional practice through real—that is, legitimate—but not central, thus peripheral, engagement or participation, as opposed to mere observation. This has allowed us to track the moment by moment, serendipitous, on-site education of new practitioners. It has helped us contrast the just-in-case teaching of school with the just-in-time teaching of workplace, and allowed us to see why school-based teaching and learning is often devalued by newcomers because of its apparent distance—both physical and conceptual—from the hurly-burly of application in practice. Our data have confirmed the patterns described in the theory and research on situated learning:

- early engagement with real but achievable tasks;
- a gradual increase in responsibility;
- a gradual increase in the difficulty of tasks;
- opportunities to re-do failed or unsatisfactory tasks;
- just-in-time teaching: guidance when needed;
- a growing sense of belonging team;
- plenty of encouragement and support;
- a growing sense of identity as a practitioner.

I’d like to pause on this last point. Some of the most powerful and poignant testimony we’ve received from our research participants has concerned their identity as

professionals. In one case, when asked when he first thought of himself as a teacher, a new practitioner reported that it was when, with a great sense of pride and pleasure, he intercepted a student note in class that referred to him as a “teacher”; apparently, the full note read: “This teacher sucks.”

## Back to culture

Despite the productive ways of thinking that theories of activity and practice make possible, I would like now, in closing, to return to my suggestion that we need to move beyond or beneath the surface offered to us by social theories. The use of the word “system” in relation to activity implies order, procedure, and intention. A focus on “practice” invites consideration of the empirical, the evident, the deliberate. And, as others have noted (Williams, 1976/1983; Faigley, 1992; Herndl, 1993; Paré, 1993), the word “community” offers a rosy view of collective life: Raymond Williams (1976/1983) called “community” a “warmly persuasive word” that “seems never to be used unfavourably” (p. 76); as a result, use of the word and the image it conjures may obscure the inequities and conflicts that arise in human groups.

By using the word “culture,” I hope to evoke something less tidy, something deeper and less conscious, something perhaps darker. My use of the word corresponds to some extent with Bernadette Longo’s use of it in her 1998 *TCQ* article, in which she argued that our notion and analysis of culture—and especially its legitimating and regulating effects—must extend beyond the individual institution. If we focus too narrowly on corporate cultures, we won’t see the ways that local knowledge and discourse are implicated in and affected by larger struggles for power and control.

In our research, we see these larger cultural forces at work—below social structures and systems—in a dynamic web of relations among the phenomena listed in the subtitle of my talk: identity, membership, and ideology. Broadly speaking, the links, as we see them, go something like this:

Professional identity—that is, the individual worker’s sense of self—develops along with a growing sense of membership

in a collective; that membership includes—in fact, *requires*, with more or less stringency depending on the context and community—allegiance to a particular worldview or ideology, a particular set of beliefs and values, a particular discourse and the knowledge it affords; the collective within which the worker finds membership is in concert and conflict with other collectives in a social marketplace that employs knowledge and discourse as key currencies—that is, as social capital. Thus, different ideologies collaborate and compete within our institutions, disciplines, and organizations, with the result that some ideas, some ways of speaking and thinking, some arguments are more dominant than others, and more valued.

This is not the titanic struggle of good versus evil, or left versus right, with which the notion of ideology is often associated; this is tension in the quotidian, where ideology, in Jim Berlin's succinct phrase, "is minutely inscribed in the discourse of daily practice" (1996, p. 78). However, as Longo (1998) insisted, there is a close relationship between local ideological friction and the forces of power at play in the larger world. Our institutions are just as animated and structured by power and levels of privilege as the wider social environments in which they function. As rich as they are, theories of activity—and the research and pedagogies that proceed from them—have not attended sufficiently to these more fundamental forces. Ideological divisions within collectives are rarely considered in discussions of activity theory, despite its Marxist origins. And although *identity* and *membership* are key terms in Wenger's (1998) book, links between them and ideology are restricted to a brief endnote (p. 284).

But we have seen again and again the struggle that new practitioners face when they discover that their knowledge and discourse counts for less than that produced by others. Within activity systems or communities—such as individual schools—newcomers may find their innovative ideas and practices suppressed by a dominant ideology that rejects transformation. Or the new social worker, whose identity as an agent of change was formed in the

community of radical theorists and progressive academics, with whom she found membership while studying, may be forced into a new identity as an agent of the state if she is to function in a government agency.

Even more apparent to us than these intra-community struggles are the inter-community tensions, for which new practitioners appear completely unprepared. Recent physiotherapy graduates come to realize that their contributions to multidisciplinary team meetings in a hospital are less valued than those of interns or nurses. Social workers find themselves second- or third-class citizens in organizations where the discourse of law, or psychology, or medicine carries higher value. Ironically, this imbalance in power is often most palpable in what Wenger (1998) called "boundary practices"—that is, activities such as team meetings that bring communities together and are meant to exploit the potential of distributed cognition.

And, of course, we have been studying groups whose voices are often diminished in institutional activity, but along with research participants, we have become aware of the value granted to the knowledge and discourse of dominant communities of practice.

Recognizing these dynamics has led us to ask a new set of questions in our research into workplace practices and situated learning, and it has also made us question aspects of our teaching. I will finish with those questions:

#### **In research:**

- Are some practices/activities valued over others?
- Are some forms or types of knowledge valued over others?
- Are some groups/individuals silenced or muffled because of these values?
- How do imbalances in power affect communication?
- What knowledge is lost or diminished?



## In teaching:

- How can we prepare students for power imbalances in the workplace?
- How can we help students to counter imbalances?
- How can we teach/demonstrate the value of multiple perspectives?

I hope these questions have some resonance in your work and in the topics we discuss over the next two days.

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#### **ACKNOWLEDGEMENT**

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# Plenary Panel Abstracts

## Program Development and Definition

### Undergraduate Degrees: A Comparison of 12 Programs

Sandra W. Harner, *Cedarville University*

Keywords: *Academic, Programs, Undergraduate, BA*

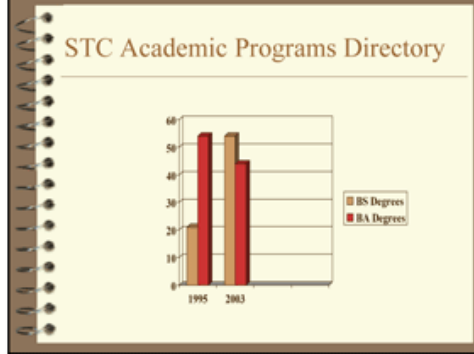


#### BA Programs Studied

- ✓ Cedarville University
- ✓ Michigan Tech University
- ✓ Purdue University
- ✓ Texas Tech University
- ✓ University of Delaware
- ✓ Virginia Tech University

#### BS Programs Studied

- ✓ Carnegie Mellon University
- ✓ Clarkson University
- ✓ Michigan Tech University
- ✓ Southern Polytechnic State University
- ✓ University of Washington
- ✓ University of Wisconsin-Stout



#### Lit Req in BA Programs

Institution	Program Name	Lit Req.
CU	TPC	None
MTU	STC	6 hrs
PU	PW/area in TW	None
TTU	English/specialization TC	3 hrs
U of D	English/concentration B/TW	9-15 hrs
VTU	English/PW track	15 hrs

#### Lit Req in BS Programs

Institution	Program Name	Lit Req
CMU	TW/ID/Software Track	None
Clarkson U	TC	None
MTU	STC	6 hrs
SPSU	TPC	None
U of Wash	TC	None
U of Wis—Stout	TC	None

#### Common Courses in BA Programs

- ✓ Technical Communication/Writing
- ✓ Grammar/Editing
- ✓ Visual Communication/Graphic Design
- ✓ Documentation: print/online
- ✓ Report Writing
- ✓ Web Design
- ✓ Special Topics

# Naming and the Commonplaces of Knowledge

Robert Johnson, *Michigan Technological University*

No Abstract Available


# Bodies of Knowledge in TCOM

Kenneth T. Rainey, *Southern Polytechnic State University*

**Bodies of knowledge  
in TCOM**

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CPTSC  
October 3, 2003  
Presented by  
Kenneth T. Rainey  
Professor and Chair  
Humanities and Technical Communication  
Southern Polytechnic State University



**Authority**

- Power
- Right
- Superiority
- Command
- Masterfulness
- Ingenuity
- Skill



3 October 2003 CPTSC

**What is au·thor·i·ty?**  
*noun*

- 1: **power** to require and receive submission
  - the **right** to expect obedience
  - **superiority** derived from a status that carries with it the right to **command** and give final decisions
- 2: **power** to influence thought and opinion
  - intellectual influence
- 3: a combination of
  - unstrained definitive **masterfulness**
  - clear-sighted **ingenuity** and **skill**
- 4: a combination of unstrained definitive **masterfulness**, clear-sighted **ingenuity** and **skill**

**ə thər ə ti**

3 October 2003 CPTSC


And, as Paré reminded us . . .

- Subversion at critical points of power

3 October 2003 CPTSC

**The Path to Authority**

1. Understanding your discipline
2. Producing significant work
3. Engaging in the profession



3 October 2003 CPTSC

**1. Understand Your Discipline**

- Intellectual authority
- Achieving certification through education
  - B.S.
  - B.A.
  - M.S.
  - Ph.D.

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## The bodies of knowledge

- The bodies of knowledge that comprise "technical communication" are extremely broad and various.
- A survey of dissertations written in technical communication since 1965 reveals an array of topics that demonstrate the vastness of the knowledge that relates to technical communication.
- The following slides outline those topics.

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## Business Communication

- Business, managerial, and organizational communication
  - Theory and history
  - Gender and communication studies
- Workplace writing
  - Processes and problems
  - Acculturation to workplace writing
  - Uses of workplace writing
  - Graphics in business communication
  - Collaboration
  - Crisis and risk communication
  - Training in the workplace
  - Oral presentation in business communication
  - Instructional technology and business communication
  - Curriculum, instruction, and career development

3 October 2003

OPTSC



## Dissertations

- 170 dissertations 1965-1990
- 178 dissertations 1989-1998
- Total = 348 dissertations over 33 years

3 October 2003

OPTSC



## Science and Medical Communication

- Science communication
  - Theory and history
  - Rhetoric of science
  - Gender and science communication
  - Processes and uses of science communication
  - Style in science writing
- Medical communication
  - Rhetoric and history
  - Patient information
  - Forms, processes and uses

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## The Technical Communication Profession

- History
- Rhetoric and theory
- Composition studies
- Collaborative writing
- Writing and gender

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## Other Communication Forms

- Legal writing
- Proposal writing
- International and Intercultural Communication

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## Document Design and Instructional Design

- Usability
- Software documentation
- Style

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## Dimensions of Professional Communication

- Curriculum and instruction
  - Rhetoric, theory, and history
  - Writing pedagogy and processes
  - Revision
- Visual Communication
  - Design, gender, and distortion
  - Typography and color
  - Teaching and learning

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## Dimensions of Professional Communication

- Computer-mediated communication
  - Research dimensions
  - Design and authoring
  - Social and cultural dimensions

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## Disciplines Represented in Technical Communication--1

- Sociology
- Psychology
- Business
- Literature
- Anthropology
- Philosophy
- Graphic design

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## Disciplines Represented in Technical Communication--2

- Rhetoric and composition
- Cognitive and social psychology
- Human and computer interaction
- Reading comprehension
- Human factors
- Typography and graphic design

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## 2. Producing Significant Work

- Contributory authority
  - **Six Journals**
    - IEEE Transactions on Professional Communication
    - Journal of Business and Technical Communication
    - Journal of Technical Writing and Communication
    - Technical Communication
    - Technical Communication Quarterly (formerly The Technical Writing Teacher)
    - Business Communication
  - **The Anthologies**
    - Anderson, Brockmann, & Miller, *New essays in technical and scientific communication: Research, theory, practice* (1983)
    - Beene & White, *Solving problems in technical writing* (1988)
    - Cunningham & Estrin, *The teaching of technical writing* (1989)
    - Fearing & Sparrow, *Technical writing* (1989)

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## 2. Producing significant Work: Anthologies

- Bazerman, *Shaping written knowledge: The genre and activity of the experimental article in science* (1988)
- Belenky, Clinchy, Goldberger, & Tarule, *Women's ways of knowing: the development of self, voice, and mind* (1986)
- Broadhead & Freed, *Variables I composition: Process and product in a business setting* (1986)
- Brockmann, *Writing better computer user documentation: From paper to online* (1990)

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## 2. Producing Significant Work: Books

- Fish, *Is there a text in this class? The authority of interpretive communities* (1980)
- Geertz, *The interpretation of cultures* (1973)
- Hartley, *Designing instructional text* (1985)
- Just & Carpenter, *The psychology of reading language comprehension* (1987)
- Kinneavy, *A theory of discourse: The aims of discourse* (1971)

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## 2. Producing Significant Work: Books

- Kuhn, *The structure of scientific revolutions* (1962, 1970)
- Lauer & Asher, *Composition research: Empirical designs* (1988)
- Peters & Waterman, *In search of excellence: Lessons from American's best-run companies* (1982)
- Price, *How to write a computer manual: A handbook of software documentation* (1987)

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## 2. Producing Significant Work: Books

- Shneiderman, *Designing the user interface: Strategies for effective human-computer interaction* (1987)
- Swarts, Flower, & Hayes, "How Headings in Documents Can Mislead Readers." *Document Design Project Technical Report No. 9* (1980)
- Tufte, *The visual display of quantitative information* (1983)
- Weiss, *How to write a usable user manual* (1985)

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## Analytical and Conceptual Competencies

<b>Analysis</b>	Ability to recognize patterns and relationships.
<b>Logic</b>	Ability to identify logical fallacies.
<b>Editorial Memory</b>	Ability to remember the use of words and visual symbols and their meanings and to identify inconsistencies in their use.
<b>Relevance</b>	Ability to ascertain relevance and usefulness.
<b>Synthesis</b>	Ability to integrate relevant discrete pieces of data to form concepts and extract procedures and rules.

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## 3. Engage in the profession

- Personal authority
- **Six large forums:**
  - Association of Teachers of Technical Writing
  - Society for Technical Communication
  - Council for Programs in Technical and Scientific Communication
  - IEEE Professional Communication Society
  - National Council of Teachers of English (Committee on Technical and Scientific Communication)
  - International Association of Business Communicators

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## Interpersonal Competencies

<b>Interpersonal Communication</b>	Ability and willingness to establish collaborative relationships with people of different backgrounds, status, education, and expectations.
<b>Team Work</b>	Skill in working with groups and willingness to be a contributing member of a team.

3 October 2003 CPTSC

## 3. Engage in the profession

- **Six Major Conferences**
  - Conference on College Composition and Communication (interest group in NCTE)
  - International Professional Communication Conference (IEEE Professional Communication Society)
  - STC Annual Conference (Society for Technical Communication)
  - Modern Language Association
  - Council for Programs in Technical and Scientific Communication
  - International Association of Business Communicators

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## Information Product Development and Management

<b>Project Management</b>	Ability to coordinate and schedule activities, control resources, and manage and mitigate risk.
<b>Process Management</b>	Ability to define or design the processes required to manage and measure the life cycle of an information product.

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## Authority in TCOM: Summary

1. Understanding your discipline
2. Producing significant work
3. Engaging in the profession

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## Self Management Competencies

<b>Detail Orientation</b>	Appreciation of the importance of details in affecting quality, timeliness, and goal achievement.
<b>Organizational Ability</b>	Ability and willingness to be efficient, not waste time or resources.
<b>Priority Setting</b>	Ability and willingness to set priorities that are more likely to meet goals.
<b>Reliability</b>	Ability and willingness to produce consistently.
<b>Time Management</b>	Ability and willingness to focus attention on tasks that are more likely to meet goals.

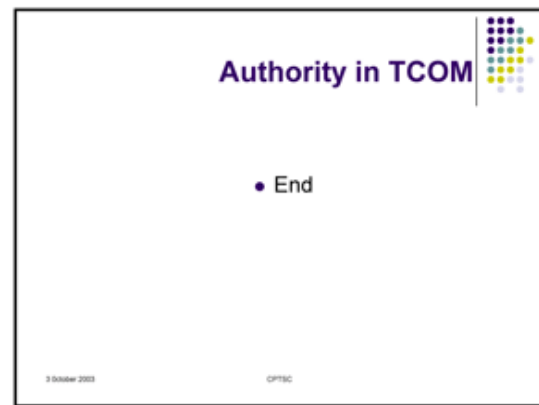
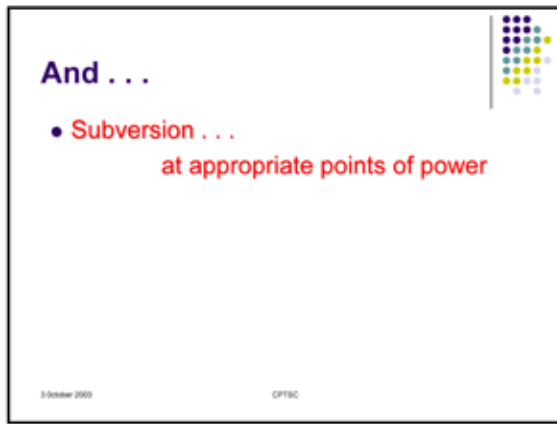
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## Authority in TCOM: Summary

- **Power**
- **Right**
- **Superiority**
- **Command**
- **Masterfulness**
- **Ingenuity**
- **Skill**



3 October 2003 CPTSC



## Making Programmatic Decisions: A Report of Two Studies

Carolyn Rude, *Virginia Tech*

*Keywords: knowledge, issues, employment*

The program chairs for this conference have raised a number of interesting questions about the development and sustainability of technical and professional communication and about the implications of our answers for undergraduate and graduate programs. Of course such questions cannot be answered because they concern the future and many unknowns, but deliberative rhetoric was invented for just such situations of uncertainty. The method of rhetoric teaches us to look for good reasons for our decisions, and these reasons are grounded, among other things, in information. I hope to provide some information that could point to good decisions about the future.

To start the panel discussion, I will be reporting on two studies from Spring 2003 that addressed some specific questions that comprise the big questions about program development and sustainability. These studies will both be reported in *Technical Communication Quarterly* in January 2004, but I have culled from them some information that relates specifically to programs and the discipline as well as the decisions we might make about them. I will preview those studies today with the permission of the investigators who conducted them.

In Spring 2003, David Dayton and Stephen Bernhardt surveyed members of the Association of Teachers of Technical Writing (ATTW). Many of you in the audience participated. The survey explored many issues that are relevant to the questions that this plenary panel aims to address, including issues of undergraduate and graduate curriculum and program evolution.

Also in the spring of 2003, Kelli Cargile Cook and I studied the academic job market in technical communication to get some data to help us interpret lore about the number of academic positions in relation to applicants and to investigate what the job market told us about the needs and goals of our field.

These studies tell us something about how we perceive ourselves as academics in technical and professional communication at this moment in time, and they identify some needs for development.

From the survey, I will show you several tables of results regarding the skills students need to succeed professionally, issues facing undergraduate and graduate programs, and ideas about how the field should evolve.



**Table 23: Most Important Skills for Students to Succeed as Professionals: More Granular**

Skill Area	n (%) of 228	Frequent Descriptors
rhetoric	114 (64%)	audience analysis, ability to adapt communication to situation, genre knowledge, understanding of rhetorical situation, rhetorical problem solving
writing and editing	112 (63%)	style, correctness, organization
technology	58 (33%)	facility with, critical understanding of, and ability to learn technologies
personal traits and work skills	54 (30%)	flexibility, ethics, organization, humor, ability to learn, professionalism, attention to detail, time management, cultural awareness
specialized expertise	48 (27%)	project management, business practices, scientific and technical knowledge
document design	43 (24%)	visual communication, format, graphics, usability, user-centered design
problem solving/thinking skills	36 (20%)	creative problem solving, analysis, critical thinking, problem solving
collaboration and teamwork	35 (20%)	
oral or interpersonal communication	28 (16%)	presentation skills, interpersonal, interviews, listening
research	14 (8%)	ability to do research; familiarity with research literature

*From "Results of a Survey of ATTW Members, 2003," by David Dayton and Stephen A. Bernhardt. Technical Communication Quarterly 13.1 (Winter 2004).*

### **Core Knowledge, Methods and Directions for Development**

Table 23 reports on what 228 survey respondents think students need to succeed. We design programs according to the vision of experiences we want students to have and what we want students to do when they graduate.

Table 23 suggests to me that this field looks much the way it has looked for a long time. This consistency suggests that there seems to be a core of knowledge that we agree is ours. The core relates to communication: writing, editing, and document design. Rhetoric defines how we understand communication: situated, a means of problem solving, responsive to audiences.

Stability in our sense of what we're teaching is good news for several reasons. This list suggests a core of skills, methods, and knowledge that are independent of place and time. We're not just preparing students for a particular job in a particular industry but, in the tradition of the humanities, helping our students develop knowledge that can be adapted in many situations for a lifetime. General agreement also means articulation among programs.

Programs are not identical, but they share enough to have an identity and some recognition beyond the field of pursuing some common goals. We do not develop independent and isolated units but rather are aware that we are part of a community, a field, even a discipline.

Stability may be bad news if it suggests a field that is static or stuck in a fairly narrow definition. If one looks just at the left column in Table 23, the core of knowledge looks similar to a list that might have been created a decade or two ago. But the right column suggests the increasingly social and critical character of this field: "critical understanding of technology," "ethics," "cultural awareness," "critical thinking." Such topics seem more foregrounded in our teaching than they might have been in the 1970s and 1980s. Although these topics interest fewer respondents than the traditional ones of writing and editing, they may still be emerging. They mark the field's development even as it maintains its core. The evidence of this table may not only show ways that programs can evolve but also the knowledge and methods that give it identity. That sense of who we are and where we are going is also evident in survey

respondents' definitions of issues facing undergraduate and graduate programs.

### Issues Facing Undergraduate and Graduate Programs

Table 28 reports on survey participants' definition of issues facing undergraduate programs. Given the amount of "hall talk" or listserv talk in this field about respect and identity, it may surprise some people that the respect topic is only third on the list, with only 13% of respondents identifying this topic as one of the "most significant." Maybe our conversations about ourselves should shift away from the angst question (identity, respect) toward working on ways to make

this major and career an attractive one. The default argument for writing courses—that all fields require good writing—may not sell as well with undergraduates as other arguments. It sounds pretty close to "eat your spinach because it's good for you." The second item, developing coherent programs, is a reason why CPTSC exists. The questions implied by the descriptors of what constitutes a coherent program are inherently more interesting than the respect question and also encourage action rather than angst. Furthermore the respect problem diminishes as we create coherent programs that attract students.

**Table 28: Most Significant Issue Facing Undergraduate Programs**

Issues Facing Program	n (%) of 228	Frequent Descriptors
recruitment	35 (24%)	recruiting and retaining qualified and motivated students
program weaknesses	28 (19%)	developing coherent programs, balancing theory and practice, meeting the needs of diverse students, keeping up with the field; bridging academy and industry, providing internships, helping industry link to and understand academic programs
department relations	19 (13%)	gaining respect and support of literature faculty, coordinating with other campus programs, connections between major and minor or concentrations in TC
resources	18 (12%)	insufficient resources for faculty lines, technology, classes, expansion
staffing	16 (11%)	hard to hire qualified faculty, inexperienced teachers in classroom, too few faculty
economy	13 (9%)	slow economy, poor job market
not sure or not applicable	24 (17%)	

*From "Results of a Survey of ATTW Members, 2003," by David Dayton and Stephen A. Bernhardt. Technical Communication Quarterly 13.1 (Winter 2004).*

Table 29 suggests that the issues for graduate programs are similar to those for undergraduate programs. Developing coherent programs—figuring out what we should teach, what students should be able to do and know upon graduation—is an issue that reflects an evolving field. These questions, like the "important skills," seem to be consistent over time, but continuing to ask such questions does not mean we have failed or are stuck. We should be wary of finding answers to such questions: a field that does not continue to question or respond to change is a dead field.

### The Evolution of the Field

Table 30 shows respondents looking directly at the future and the ways they would like to see the field evolve. The respect issue surfaces as the dominant one. But perhaps the resolution of that issue is named by those that follow: broaden the kinds of writing and communication work we do, create new connections, deepen theory and research. If we focus on those goals, we'll move ahead, generate a lot of vitality, create increasingly attractive programs, and eventually gain respect from doing these things.

**Table 30: How Respondents Want to See the Field Evolve**

How Should Technical Communication Evolve?	n (%) of 228	Frequent Descriptors
gain identity and professional stature	32 (26%)	name recognition, program definition, self respect, professionalism
broaden the kinds of writing and communication work we do	24 (20%)	new media, design, technology, medical and scientific communication, communication more broadly, civics, service and client learning
more connection to industry	21 (17%)	stay pragmatic and pursue applied research in industry settings; close the gap of academia and industry
deeper theoretical and research grounding	20 (16%)	more and more useful research; deeper connections to theory, stronger humanities base, balance between theory and practice, more connections to critical and cultural theory
pursue interdisciplinary connections	13 (11%)	through research, double majors, campus connections to management and computer science, journalism
better positioning within the university	11 (9%)	closer connections to writing and lit programs, wac, increase profile and administrative support
keep up with changes	6 (5%)	technology, interdisciplinary research
no answer	7 (6%)	too complex

*From "Results of a Survey of ATW Members, 2003," by David Dayton and Stephen A. Bernhardt. Technical Communication Quarterly 13.1 (Winter 2004).*

The survey results give us reasons to confirm and affirm that we are pursuing shared goals, a necessary foundation for disciplinary status. But they also suggest that our conversations about ourselves might take a turn away from the respect question toward questions about recruitment and program coherence.

**The Academic Job Market**

Like the survey, the job market study aimed for information to back up lore and to help program directors make good decisions about hiring or, in the case of graduate programs, about preparing doctoral students. Kelli Cargile Cook and I were interested to know how many jobs there were, what kinds of institutions were hiring and at what levels, how many jobs were filled, and what qualifications the hiring institutions sought. To answer these questions, we contacted search chairs for all the positions named in the MLA Job Information List in October and December of 2002 and February of 2003. I will report today three key findings.

- 1) There are fewer jobs than in previous years, and most jobs are in departments that lack dedicated programs in technical and professional communication. We

identified 118 jobs, including six for instructors who named technical or professional communication as a primary or secondary specialization. Of these, 60 ads targeted this field as a primary specialization. We reached 56 search chairs. By April of 2003, 42 jobs had been filled, 4 were pending, and 10 were unfilled.

- 2) Only 29% of the jobs for which technical communication was the primary specialization were filled by people with degrees in the field. Other degrees included English literature and rhetoric and composition. Of course, many of us in this room have our terminal degrees in a field other than technical and professional communication and rhetoric (I am one of them), and such people have embraced the field with enthusiasm and enriched it with their gifts. But this low percentage may be ominous for the future development of the field. If new faculty are not already prepared in the body of knowledge and methods of the field, they have to learn on the job, and their research contributions will be at best delayed.

3) The research specialization may not match the teaching responsibilities. As Table 3 shows, the dissertation topic and research method are in 8<sup>th</sup> and 9<sup>th</sup> place on a list of 11 qualifications that hiring institutions regard as very important or important. That finding is unsettling because it suggests that “technical communication” is not regarded as

having specializations. For example, someone with expertise in the rhetoric of science may be interchangeable with an expert in user documentation. Perhaps new faculty do not want nor expect to teach only in their area of their research, but the need to be a generalist may interfere with research productivity.

**Table 3 Qualifications Valued by Hiring Institutions (n=36)**

Qualification	Very Important	Important	Not Important	Total “Very” or “Important”
teaching experience	30	6	0	36
job talk, teaching demonstration	26	10	0	36
prior publication	16	19	1	35
prior conference presentations	13	21	2	33
dissertation completion date	24	8	4	32
recommendations	15	17	1	32
reputation of the degree granting institution	8	23	5	31
dissertation topic	11	19	6	30
research method	6	21	9	27
reputation of recommender	4	22	10	26
work experience in technical communication	8	15	5	23

*From “The Academic Job Market in Technical Communication, 2002-2003,” by Carolyn Rude and Kelli Cargile Cook. Technical Communication Quarterly 13.1 (Winter 2004)*

### Conclusions and Implications

As program directors make decisions about development of their programs, it is useful to have the big picture of the field as well as local knowledge. The information in the two studies about to be reported in *Technical Communication Quarterly* can help directors assess how their programs match the collective idea of the field. The job market

study may be particularly relevant to graduate program directors as they advise students about academic employment.

I encourage you to read the articles when they are published as I am looking at just limited pieces of data and just from the perspective of program development. The authors offer more extensive interpretations and broader perspectives.

# Abstracts

## Expanding Borders: Relationships, Contexts, Competencies

### The Impact of Current Trends on TCOM Curricula

Kenneth T. Rainey, *Southern Polytechnic State University*

*Keywords: single-sourcing, media, design*

Rapidly changing processes in internationalization, in emerging technologies, and in instructional delivery systems require program directors and faculty to constantly evaluate and re-evaluate the extent to which they consider these changes in curricula development. This evaluation should not necessarily result in curricula molded in the image of industry, for many changes in technological processes are ephemeral. Given the bureaucratic slowness with which curricular change occurs, many of our changes will emerge just as the latest technological fad disappears. Nevertheless the impact of internationalization and global business, in single-sourcing technologies, in knowledge management processes, in instructional delivery media, and in interaction design and information design—all force us to examine not only what we teach students but how we teach them. This position paper calls upon us to consider how—and to what extent—we can incorporate the challenges of current trends in our curricula. I do not have many answers—just a lot of questions.

#### Internationalization and Global Business

With more and more business being done internationally—and with practically every major company and many minor ones engaging in international business—documentation in all its media must likewise go international. This fact "has an undeniable impact on writing, editing, translation, localization, and Web design," said Carolyn Luttrell (2003) in her introduction to the annual issue of *Intercom* magazine that focuses on international technical communication (p. 2).

And despite the advances in technology, computer-assisted translation and translation memory cannot produce "fully

automatic, quality machine translation," according to Nancy Locke (2003, p. 5).

What impact do these developments have on technical communication curricula? How many of our courses incorporate considerations, for example, of differences in cultures in "design approaches that accommodate localization" (p. 5)? How much instructional consideration is given to writing documents that can be translated into other languages without excessively expensive localization costs?

#### Single-sourcing

Ann Rockley (2001) argued that "the use of document databases, single sourcing, and knowledge webs will redefine 'writing'" (p. 189). She noted that "the emphasis on technological skills has diverted the profession from its original role [of] effective communication" (p. 189). Instead, technical communicators spend much of their work time dealing with computer-generated texts, limitations, and errors. Technology is also changing the way we communicate and the way that businesses operate. E-publishing and single sourcing are forcing a major paradigm shift on the way we communicate (p. 189).

What impact do these developments have on technical communication curricula? How many of our courses incorporate considerations, for example, of the skills necessary to understand and deal with computer-generated problems? How much instructional consideration is given to understanding computer languages and how they work? How extensive is our curricular treatment of the issues of e-publishing and single-sourcing?

#### Knowledge Management

J.D. Applen (2002) argued that the technical communicator is in a prime position to



become the conservator of company knowledge capital, a commodity equally as valuable as capital based on investments in equipment, land, and personnel. Use of XML and the classification schemes of library science can preserve the knowledge generated by decades of employees whose cumulative knowledge actually makes a company operate. Applen notes, "Technical communicators can expand their roles into the realm of knowledge management by augmenting their already considerable skills with a basic understanding of XML coding and a critical understanding of how this applied tool can allow us to shape, store, and transfer knowledge."

What impact does this development have on technical communication curricula? How many of our courses incorporate considerations of knowledge management? Of XML? Of classification schemes for organizing knowledge? How can we design curricula that incorporate these developments?

### **Instructional Delivery Media**

No one would dispute that online instruction has arrived and is rapidly expanding. Many universities have online courses and some have degree programs delivered entirely online.

The parallel development in industry is online training and online delivery of instructional and maintenance manuals as well as other information documents. But how many courses are offered to students to train them in online delivery of information—whether academic instruction or industrial training and online documentation?

### **Interaction Design/Information Design**

Muriel Zimmerman (2001) argued that "future human-computer relations may not require the reading of manuals or the manipulation of the interface" (p. 200). Even with this change in human-computer relations, "technical communicators will continue to enable users because they know how people want to learn from machines" (p. 200). People (workers) are now wearing their computers and carry the equivalent of 6,000 page manuals around

with them. This ubiquitous computing means that many computers share each of us, operating by speech-based or other sophisticated electronic interfaces (p. 201). As Zimmerman said, "Interaction design, an emerging philosophy of development for high-tech products, may alter the way that hardware and software products are designed and may create for technical writers new and significant roles in user support" (p. 202). Saul Carliner (2001) "defines the work of information designers by roles in design development, and production of information rather than by end products" (p. 156). He noted that information designers need to develop competencies not only in information design and development but also in technology, industry, and business.

What impact do these developments have on technical communication curricula? How much of our curricula considers human-computer interaction? Examine the changing roles being forced upon students by changes in software and hardware design and by emerging roles in information design? How much attention do our curricula give to technology, industrial processes, and business practices?

### **Conclusion**

As important as making our curricula as relevant to the production world as possible is protecting our curricula from the effervescent changes so often experienced in industry. Many seemingly important changes in technological practices—as well as business/industry practices are here one day and gone the next night. So we need to be acutely aware of the ephemeral nature of change and mold our curricula only on substantiated permanent changes affecting our field. We should also be aware that our curricula may, in fact, lead to changes in technology, business, and industry—if we can maintain our focus on our ultimate objective: assisting users in the use and development of technology by creating the just-in-time information that is necessary for their success.

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## Expanding Our Borders to New Sites of Practice

Carolyn Rude, *Virginia Tech*

*Keywords: research, theory, curricula, conversation*

Vital academic programs have a component in practice and an obvious connection of research and theory to the undergraduate classroom. This position (not a truth) could explain, in part, the growth of technical communication as an academic discipline over the past two decades although the study of literature, often in the same department, has declined. The practice component of literature theory and study has traditionally been teaching at the high school and undergraduate levels. However, the critical theories of literature that academics have used over the past few decades are less accessible to undergraduate and high school students than those of previous decades. The divorce of theory and practice creates an exclusive community of scholars. Undergraduates do not feel invited in and they flee to other classrooms. Students want to see the productive application of their study, whether it is in English, business, engineering, biology, or political science. But as academics in technical communication are drawn to inquiries marginally related to practice, we could find the same kinds of gaps between faculty interests and the interests of students and their future employers.

In technical communication, our dominant site of practice over the past two decades has been the corporation, especially in information technology departments. The demand for technical communicators to practice in the corporation has created the demand for

academic programs. Some of us in the field would like to expand the options and definitions of the field. Our reasons are mixed. Some look beyond the corporation because of a practical sense of the economics of diversification, a civic sense of responsibility for contributing to broad public agendas, and intellectual interest in the discourse practices of various disciplines. We may wish for options for graduates to include multiple sites of practice, including government organizations, advocacy groups, and social service. Especially as such organizations have needs for analysis and discourse related to science and technology, the preparation our programs offer students seems useful and relevant.

Until we develop new sites of practice, we can only theorize our value in settings beyond the corporation. We cannot expect government and social service organizations to come looking for graduates until we help to establish the value of these graduates in new settings. Nor can we expect students to flock to our classrooms because the subject itself is interesting. Steps in joining what we like to study and teach with practice include research on practices in alternative workplaces with appropriate curriculum adjustments; invitations to guest speakers to come to our campuses with information sharing, client projects, and internships.

In short, if we wish to make the expansion of our field a reality, we must develop, not just assume, alternative sites of practice. The work of this field in

environmental writing provides some good examples of the possibilities and limitations of expansion. The research is intellectually interesting, and we can establish the significance of discourse in any environmental agenda. But until students get jobs as writers in environmental organizations, this inquiry will remain peripheral to our field. Curricula structured around topics that interest scholars may be misleading to students who expect market value in courses.

### **Captured Conversation**

Participants in Potsdam reiterated the value of internships and visiting speakers as mechanisms for establishing an identity beyond our current sites of practice. Participants offered additional suggestions:

- Do projects for free in new sites; then potential employers call back when they see the value of the work.
- Develop online programs. Students with connections to various workplaces seek improvement in writing and editing. Those same students may become advocates for graduates in their workplaces.
- Discover sites of practice in our universities.
- Think globally.
- Define a need for our services and then market the services. For example, be proactive in defining knowledge management and the role technical communicators have in this activity.

### **Expanding the Borders of Our curriculum to Include Communities of Practice**

Sandra Harner, *Cedarville University*

*Keywords: design, XML, database tools*

Mike Bates recently spoke to the students in the technical and professional communication program at Cedarville University. His opening statement went like this: "There is no future in technical writing. It is on its way to becoming an obsolete profession, undervalued, underpaid, and viewed as irrelevant. It is a cost-of-goods sold." The looks on the students' faces were less than reassuring. Who is Mike Bates and on what authority can he make that statement? And perhaps more importantly, what did he mean?

Mike graduated from the undergraduate program at Bowling Green State University in 1991. Since graduation, he worked for various industries such as Alltel, Rockwell Software, IBM, and most recently Intuit. While working for Rockwell, he managed a group of Information Developers. During that time, he also was elected to be the STC Director/Sponsor for Region 4 (and thus a voting member of the STC Board of Directors). Recently he has accepted a position with Intuit where he directs the user interface design and usability practice for Intuit's Real Estate Software industry. So, that's his background: a graduate of a

strong academic program and eleven years in industry.

Bates is not the only one making these noises. Roger Grice and Robert Krull wrote an introduction to a special issue of *Technical Communication* in 2001 in which they said "we may be undergoing massive qualitative changes in our roles and practices [as technical writers] rather than just incremental changes. 'Writers' are predicted to become usability testers, visual designers, trainers, and technology mavens, and all at once. We see our profession blending with other professions: for example, acquiring perspective and skills from the field of information design; and incorporating statistical testing, database design, and authoring from the field of training." (p. 135).

Where did these ideas come from? Some of them were an outgrowth of a conference hosted at Rensselaer Polytechnic Institute in September 1997. The theme of that conference was "the Five-year Horizon: Skills and Education for the Information Technologist." Industry leaders from Microsoft, Lotus, IBM, Lucent, services vendors, consulting firms, and other corporations were brought to the



Rensselaer campus for two days of presentations and dialog. They were asked to predict the evolving future of technical communication five years out. Obviously, we are now in a position to determine how accurate their predictions were.

What does the profession look like today? We see writers who specialize in running usability tests; writers who work with XML and database tools to manage single content sources for multiple delivery vehicles; writers who develop content and then design the layout of that content for every kind of print and electronic media, writers who grab the latest hot authoring tool and produce Web-based customer support. And the list could go on and on.

The common denominator is writing skills. The writing skills are basic, but they aren't sufficient to succeed in today's tight economy. Bates said, "When I put together a team composed of human factors engineers, interface designers, visual designers, user assistance architects, and technical writers and I have to cut back in resources, the first one I let go is the writer. That's because I know that all the remaining group members bring writing skills—as well as other crucial skills—to the table." After all, most of them are graduates of technical communication programs who have broadened their skills sets to assure their value in today's business world.

The Society of Technical Communication, the largest professional organization for technical communicators, has realized that serving the needs of writers and editors alone is not enough. Actually, the members themselves moved the organization in that direction when they showed their overwhelming support and participation in the Special Interest Groups (SIGs). Although membership in STC has been on the downward trend, membership in the SIGs has been growing. By taking a look at the special interests the STC members are expressing, STC has suggested that Technical

Communication is the umbrella term. And under that umbrella are many communities of practice composed of people who participate in this profession using the skills and tools learned in many of our technical communication programs.

They have learned from us the importance of audience analysis, needs analysis, task analysis, writing clear and concise text, and many other basic technical writing skills, and they have used those skills in the practice of usability, editing, single sourcing, documentation, marketing communication, instructional design, indexing, science writing, visual design, and environmental, safety and health communication. These various groups have been identified as communities of practice. Their members have found ways to come together for support and to further develop their skills.

Few of them call themselves technical writers. Many do not even call themselves technical communicators—although that's what they are.

In light of these conclusions, STC has once again changed its mission statement (that's twice in the last four years). As an organization, STC wants to extend the borders of this evolving profession as expressed in their newly focused mission statement: Creating and supporting a forum for communities of practice in the profession of technical communication.

If our academic programs are to succeed in preparing students to be successful in the profession of technical communication, we must give them the underpinnings to become successful in whatever community they find themselves, which means continuing to teach the theory and skills clearly associated with this profession. But if students are going to land those jobs and, more importantly, keep them through all the cutbacks and layoffs—we are going to have to teach them to apply the skills they have learned according to basic business principles. They need to know how to write a business use case.

So is there a future in technical writing or is it on its way to becoming an obsolete profession, undervalued, underpaid, and viewed as irrelevant? Is it a cost-of-goods sold as the market views it? What Mike Bates was trying to get my students to understand is that, as technical communicators, they can establish their skill base as a key part of the product engineering process, developing the human component for products.

At the risk of being repetitious, let me quote something Steve Bernhardt said at the CPTSC conference in 2000:

We should not pursue specialization in our programs. We should not become the multimedia development program or the computer documentation program or the medical writing program, or the environmental communication program, or even the critical literacy program. We should build programs around a broad, useful rhetorical education, coupled with a skill set that all students share in writing and document design. We should make sure all students develop productive relationships with communication technologies. And we should allow students to follow their interests and to find the kind of specialization that is rewarding to them

individually." (Conference Proceedings, 2000)

I certainly agree with Steve and many of you who have said much the same things. I would like to suggest one thing further: that we provide students with the opportunity to explore the various communities of practice that are available to them as members of this umbrella-like profession, and that we teach them to apply those skills according to basic business principles. Only then will the business world begin to realize that we possess skills that can decrease the bottom line and reduce the cost of goods sold.

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## Placing Technical Communication at the Border of Service— Learning Democratic Citizenship, and Corporate Interest

Sean Williams, *Clemson University*  
Renee Love, *Georgia State University*

*Keywords: service learning, academic learning, for-profit*

As David Sapp and Robbin Crabtree (2002) noted in their recent TCQ article, service-learning in Technical Communication programs is an "underutilized practice" (p. 411) although service-learning provides students with experiences that "include relevant and meaningful service with the community, enhanced academic learning in coursework, and purposeful civic learning that directly and intentionally prepares students for active civic participation in a diverse democratic society" (p. 413). This position on service-learning echoed Lankard (1995) and Fishman (1993) who reminded us that service-learning projects stem from the progressive education era, and John Dewey's influence in particular, which saw the classroom as a microcosm of society where teachers could cultivate the skills that would help shape students into successful citizens well-prepared to participate in a democracy.

But what happens when we adapt the paradigm of service learning that traditionally serves the underprivileged or nonprofits, to for-profit clients? It would

appear on the surface that we are not promoting democratic engagement in the same way because for-profit values stem from their corporate, profit-driven motives, although nonprofits hope to serve the underprivileged. However we argue technical communication service-learning courses that include a learning experience with a for-profit company can be structured to teach the same concepts of democratic citizenship as traditional service-learning.

Specifically, following Ervin (1997) and Faber (1999), we argue that service-learning for profit clients creates opportunities for authentic discourse where technical communication students engage a meaningful context for cultural critique and civic action—the for-profit sector that ultimately will employ most of them. Furthermore, by allowing students to examine corporate structures, value systems, and issues of civic responsibility, for-profit service-learning projects might play a role in redressing corporate selfishness by prompting companies to

support education thereby participating in the improvement of their local communities.

Given the opportunities for democratization, the potential value shift, and the honest dialogue that occurs when students work for for-profit organizations, it might be particularly important to engage for-profits in service-learning in our programs.

Using for-profit service learning in our technical communication classrooms, positions for-profit organizations as partners in improving the community by sponsoring the type of education that promotes democratic engagement and reflective critique. In a sense, through well structured, for-profit service-learning projects, we're modeling a paradigm of stewardship, reflective action, and critique that encourages for-profit companies to begin recognizing the values and goals of traditional service-learning while students learn valuable life and career lessons.

## Boundaries or Barriers: Models for Academic Border Crossing

### Patterns Between Organizations: Implications for the Classroom

Michael McCord, *Minnesota State University Moorhead*

*Keywords: outsource, communication structures, organizations*

As technical communicators, most of us are familiar with the groundbreaking research published by people such as Stephen Doheny-Farina and Paradis, Dobrin, and Miller in which the role of writing within organizations is examined. To be sure, the importance of studying and understanding writing within organizations continues to be fundamental for those of us interested in technical and professional communication. However, because many corporations now outsource significant portions of their business to external companies, it is also important to study and understand the role of writing and, more generally, differing communication structures between organizations. In my experience, this is not a topic that is discussed in most technical communication classrooms.

A recent communications audit that I undertook at a Las Vegas outsourcing company highlights some important issues. At this company, there was, in general, a "top down" flow of communication within the

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organization, a flow that seemed almost like a military "chain-of-command." Information flowed along lines from the general manager to the strategic business manager, who then disseminated that information to appropriate senior account managers. From there, information was disseminated to lower level managers and then to supervisors and agents on a need-to-know basis. Of course, information could flow in the opposite direction as well, but again following the same general path. This communication flow was quite effective within the company, but problems became obvious when managers with a completely different communication structure attempted to communicate with their client organization.

The client organization, a Baby Bell, had a more level movement of communication within the company. Essentially, everyone talked or wrote to everyone about everything involving the client's account. It was not unusual to see e-mail from

managers being sent with copies to everyone in the entire organization about concerns that actually affected only two or three people. Although this seems inefficient, the level communication pattern actually worked quite well within this organization.

It is when the two different communication structures "collided"—when one organization attempted to communicate with the other—that problems became apparent. This certainly complicates

"programmatic perspectives and issues in scientific and technical communication," to quote from the CPTSC call for position papers. A look at recent technical communication research shows little discussion of these intra-organizational patterns and what they mean for those students who, once they complete our programs, enter the workplace and encounter complications such as these. Moreover, few technical communication textbooks discuss this issue in any depth.

## **Partnerships in Technical Communication Work: Lessons from Minnesota**

Suzanne Black, *Southwest Minnesota State University*

*Keywords: interuniversity, distance learners, joint programs, collaboration*

Interuniversity partnerships are widely encouraged as a way for public universities to pool increasingly scarce resources, to minimize duplication of academic programs, and to cooperate rather than compete. Joint programs in technical communication have not been widely studied, but they seem especially logical for several reasons. Distance learners can earn a degree a smaller school may not be able to provide on its own, and they gain concrete experience as users of communication and collaboration technologies. Students can also learn to communicate with different audiences and in different organizational contexts, because the programs draw on faculty's varying expertise areas.

As Baus and Ramsbottom (1999) have noted, however, university consortia are typically easy to start but difficult to sustain. Mitchell argued that in general partnerships are "unstable" (p. 77). Based on our institution's five-year partnership with the University of Minnesota, I propose some strategies for success.

The University of Minnesota, Department of Rhetoric, currently offers its B.S. degree in scientific and technical communication (S & TC) at four sites across the state of Minnesota. Southwest State's S&TC partnership with the University of Minnesota began in 1999, and we also partner with them to offer degrees in agricultural industries and marketing, crop & soil resource management, and hotel & restaurant management. The two schools, however, belong to different systems and

they also differ in educational emphasis, mission, history and governance structure. Specifically SSU is part of the Minnesota State Colleges and Universities (MnSCU) system. A liberal arts college founded in 1967, we are a regional institution emphasizing teaching; we also have a unionized faculty and a shared governance structure. The University of Minnesota is a research institution and not part of the MnSCU system; it originated in 1851 as a land-grant school.

Based on our experience since 1999 and the probable elimination of the partnership by spring of 2004, I suggest three major and two minor factors important for the success of a technical communication partnership. Most important is (1) allowing both institutions to articulate clear and specific criteria for program success, followed by (2) cultivating not just administrative but also broad faculty support. Finally, (3) fostering faculty development through contact and collaboration between institutions is key to building trust and maintaining support. Research on best practices in university consortia also stresses the importance of a financial arrangement and a director that all parties perceive as fair and disinterested; indeed, although not essential, greater financial transparency and a partnership director might have increased our collaboration's chance of survival.

Can joint programs work? I would say yes, if the partnership is balanced rather than unilateral; if the institutions involved



complement each other and recognize each other's strengths, and if there is open discussion of the financial issues involved.

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## Bridges Across Many Borders: The Eastern Michigan University Write-Link Project

Ann Blakeslee, *Eastern Michigan University*  
Jay Steichmann, *Eastern Michigan University*

*Keywords: Write Link, bridges, acquisition of knowledge*

In recent years, our field has been seeking ways to build bridges and to partner with technical communication programs in community colleges, practitioners in industry, and colleagues in other areas of writing. Many in our field have also been incorporating community service into their pedagogy. Another focus has been to reach out to high schools to connect with students who represent the future of the profession. We all recognize the benefits to be gained from such partnerships and projects.

At Eastern Michigan University, we have created a program that involves all of these constituents and initiatives. The Write-Link High School Outreach Project is a community partnership between Eastern Michigan University, Washtenaw Community College, and high schools in the heavily populated area of southeastern Michigan. We designed the Write-Link program so that it will benefit students in all of these schools and programs in two major ways: It will help them both to develop their understanding of career opportunities in the fields of technical and professional writing and to develop their sense of civic responsibility. Write-Link is a week-long, on-campus program designed to address high school and college student interests in various writing professions as well as organizational interests in hiring individuals not only skilled as writers but also socially aware and active in their communities.

This project crosses borders that have previously acted as barriers to students' interest in the writing professions. In particular, it crosses institutional, disciplinary, and professional borders

through the combination of a variety of partners. These partners include faculty and students from EMU and WCC; principals, faculty, and students from area high schools; professionals from organizations such as the Southeast Michigan chapter of the STC and the Detroit chapter of the PRSA; and representatives of community service/non-profit organizations, specifically, employees of WTVS-Channel 56, Detroit's public broadcasting television station. Write-Link also has received external funding in the form of a grant from the Michigan Campus Compact and matching funds from EMU. The student participants of the Write-Link program are 20 juniors and seniors from area high schools selected on the basis of applications and competitive essays that were judged by a panel of faculty and professionals. The program includes presentations and discussions, hands-on assignments, field trips, and a culminating community service project for Detroit Public TV. In addition to enhanced knowledge, experience, and community relationships, the students will leave with portfolios and a student-produced communication.

The goal of the program is to introduce students to the various writing professions in a service-learning context. Specific fields to be discussed include journalism, creative writing, public relations and technical communication.

The idea for this week-long course grew out of initiatives of the PRSA, the STC, CPTSC, and the ATTW, all of which have been engaging in efforts to expose high school students to their respective fields

because students typically are not exposed to these concentrations until late in their college careers. By building bridges between the professions and between educational institutions and different levels of instruction, programs such as this can achieve the following outcomes:

- Increase student exposure to various writing careers and opportunities;
- Engage high school students in a service-learning project as a way of helping them understand service;
- The various disciplines develop their writing skills and contribute to a community need;
- Involve college student teams in the development, promotion, and implementation of a program,
- And involve these students in mentoring activities with high school students; and
- Strengthen collaborations between the university and the community, with community encompassing high schools, community colleges, industry, and the public/non-profit sector.

## **Strategies for Expanding Program Borders: Communication Modules for Engineering Technology**

Molly K. Johnson, *University of Houston—Downtown*

*Keywords: POWERPOINT, software, workshops*

With a Master's degree in professional communication in the final stages of approval, the undergraduate Professional Writing program needs to expand our reach beyond the University of Houston—Downtown campus to identify potential advisory board partnerships with local corporations and to facilitate intern and job placements for future graduate students. One strategy that would address our program's need to expand both external (workplace) and internal (cross disciplinary) borders would be to create a series of PowerPoint instructional modules that Professional Writing faculty could offer as supplemental components in existing science and technology senior seminars

The impact of projects such as this one will be realized through the high school and university students' acquisition of new knowledge and hands-on experience in their careers of interest within a service-learning context; through the exposure of the high school students to working professionals and to college and university students and faculty; and through the teaching, service and research opportunities for the faculty, professionals, and students involved in the program.

Programs such as Write-Link can prove to be sustainable and vital community partnership programs for technical communication programs in both universities and community colleges. Such programs are also perfect vehicles for external funding and sponsorship, particularly from professional associations and industry. They present excellent opportunities to build bridges between multiple constituencies where everyone benefits. In our presentation, we will share observations and insights gleaned from the initial Write-Link session conducted at Eastern Michigan University in July, 2003.

within the university and professional development workshops in the workplace.

Noting Microsoft's recent estimate that thirty million PowerPoint presentations are delivered every day, one British source suggests, "perhaps 29,999,999,999 of them are of mind-numbing inconsequence" (Guardian Newspapers, 2/7/2003). Reports of CEOs limiting or even banning PowerPoint presentations fill the media. In "Absolute PowerPoint" (*New Yorker*, 2002), Ian Parker suggests that this software has made "middle managers into bullet point dandies." Academia has not fared much better. Everyone from second graders to university seniors is using PowerPoint to present research. Unfortunately, although the latter students encounter more complex

content, their presentations are not necessarily correspondingly more effective. No wonder these presentations frequently lack engaging content, when students are urged, often with inadequate guidelines, to use all the bells and whistles of this easy-to-learn software that produces slick special effects with little effort, while seductively guiding content.

To improve university-level presentations, students need rhetorical, design, and usability strategies and tools to create effective, professional presentations. By developing a series of three to five modules for science and technology students, Professional Writing faculty could polish materials for use as one-day

professional development workshops in the workplace. As a first step to creating theory and practice modules on PowerPoint, I will consult a science and technology focus group to analyze what faculty value in student presentations and what resources they want and need. Next I will develop an annotated bibliography of PowerPoint resources (print and web) as support for students, faculty in the disciplines, and workplace professionals. My presentation will report on my findings and serve as a starting point for discussion about specifically what these modules on presentation writing and design should provide.

## **Accessible Information Architecture: Participatory Curricular Design**

Michael Salvo, *Purdue University*

*Keywords: technical and professional writing, renegotiation, curricular design*

My initial design of the class envisioned a classroom of users unfamiliar with technical and professional writing, unversed in digital design, and unfamiliar with usability testing. The graduate students who arrived for the first class had 50 years of workplace writing experience among them, 20 years of design, a decade of usability expertise and clear expectations for this class. However, each of the attendees were new to the role of student, either finding themselves in precarious positions in the post-bubble economy or newly unemployed and searching for credentials that would help them become engaged in the current economy. And I had not prepared a class that would meet these specific and quite unique expectations.

So we collaborated. Students told me what they felt they already knew, and what they wanted to gain from this class and from the program. I spoke about my expectations and goals for the class. And we looked at the syllabus and the materials I had prepared for the class and found them inadequate. So what would this class become?

This presentation describes the process of engaged negotiation that re-engineered an inappropriate design to one that met student needs. The presentation's core is a concern with participatory dialogue as a

reflective information design process. The students, new to the classroom, did not have traditional expectations from me as teacher. We negotiated roles, both those I would play as teacher and that they would play as students.

Secondarily, the presentation describes the development of accessible design as an emerging center to the concerns of the professional communication classroom. Echoing research recently undertaken by Ginny Redish involving usability testing for blind users, students expressed a strong understanding of accessibility as distinguishing their credentials and expertise in a tight job market. One student articulated the relationship as "bringing information architecture and internet accessibility together."

Students reengineered the classroom to meet their needs, asking me to play the role of consultant as they explored potential constructions of accessible, participatory and usable design. And we both learned what it meant to participate in the design of an information object, one that most students do not often interact with: the course syllabus.

Students negotiated new roles for themselves and for the teacher to play, challenging traditional borders of the classroom and identities played within its

walls. Through my engagement with students, the authority of the classroom was renegotiated and led to redefinition of accustomed roles like teacher and student. Renegotiations of the classroom led to deep discussion and consideration of the roles of designer, writer, engineer and programmer on the projects and within the institutions. Negotiating my expertise allowed students to see new options for their roles—new ways of playing their parts—and enlivened the potential for engaging users as part of the design process.

Failure of the teacher-centered classroom led to renegotiation of classroom

## Boundary Metaphors, Program Strength, and Disciplinary Identity

### Deconstructing and Demystifying the Unknown Other: Reaching Out Across Academic and Community Boundaries

Andrea Breemer Frantz, *Wilkes University*

*Keywords: market, academic program, identities*

As Kevin Hetherington (1998) pointed out in his book *Expressions of Identity: Space, Performance and Politics*, "...making space for oneself—a turf—is a major source of identification within identity practices" (p. 18). But negotiating space, as so many studies on disciplinary identity and politics have suggested, is a complex, continuous process—one that involves reflexivity and negotiation.

This is particularly true for small universities seeking to reshape their public images to address changes within the economy and social fabric of the communities they serve. With the addition of technical and scientific academic programs designed to meet needs identified by a technology-driven job market and shifting populations, new programs are challenged not only to negotiate identity space within an established (and often resistant or skeptical) academic arena, but also within the communities that are served by the program and the businesses that will ultimately hire its graduates.

In 1996 a fledgling pharmacy program began at Wilkes University, and later through a generous endowment, the Nesbitt School of Pharmacy—a PharmD graduate program—was firmly established. As is

space. Rather than striving for control, I listened to students and the needs and desires they expressed. My authority was not taken away but renegotiated through participation with students, who can be understood as users of the class design. This exercise in user-centered participatory design was successful in that students felt like stakeholders in the outcome of the class. And I learned the important role accessibility will play in the future of information design, a role we ignore at students' peril. There is much to learn from students as there is much to be learned from users: participatory curricular design.

often the case, the introduction of the new scientific/technical graduate program initiated both an important shift in the university's public identity and market appeal, and also some internal ripples of jealousy across established academic programs. Indeed, due to the rigorous curriculum the PharmD students were required to take, most were relegated to a separate space and almost immediately regarded by the rest of the student body as the privileged "Other."

Although the professional reputation of the program swelled as its first graduates took professional positions in the area, its "separate" status on campus also grew. Faculty and students alike joked about "the Nesbitt School of Pharmacy...and the rest of Wilkes University." In addition, thanks to little academic and social interaction outside of the School of Pharmacy, pharmacy students developed myths about the students at Wilkes outside of their program.

In the spring of 2003, faculty members of three classes across two disciplines—pharmacy and communication studies—collaborated on a major research project requiring the students of those courses to work together for the first time. The upper-level courses—History of Pharmacy,



Communication Research Methods, and Advanced Video Production—collaborated on a major project with the end goals of producing a collection of oral histories and a Ken Burns-style video documentary. The project teamed communication studies and pharmacy majors with a local retired pharmacist and member of the local professional pharmacy association, and thus also allowed students and community members to reach beyond university/academic boundaries to better understand the community and vice versa.

This position paper will examine how reaching out across disciplinary boundaries through the qualitative research experience helped dispel myths and re-negotiate some aspects of academic/campus identities,

## **Corralling Disciplinary Dogies: Adjusting Fences for Prudent Technical Communication Boundaries**

Margaret N. Hundleby, *University of Houston—Downtown*

*Keywords: borders, epistemic, dogies*

The particular concern facing my institution of affiliation—University of Houston-Downtown—is how to maintain prudent Technical Communication program expansion in the face of rapid growth, high demand, and scarce resources. This challenge repeatedly directs us to consider borders—those within which a program would typically attempt to corral diverse disciplinary dogies (DDD) to satisfy practical needs and maintain our theoretical integrity. Our first year of offering a Master's of Science degree in conjunction with a significant increase in the sophistication of the undergraduate degree required by serving a large urban population. We are finding that the issues are, in fact, determination of when, how, and why we can stretch the borders—that is, adjust the fences of the corral—to mediate with the DDD for curriculum design and delivery and for response to and assessment of students. Far more easily said (or written) than done, maintaining a watchful eye on prudence is not as much a case of positioning ourselves at the English Department gateway to compel them to enter the corral, as it is taking stock of what we have at hand in the way of strategies for adjusting ourselves to them, and them to us,

linking technical/scientific disciplinary knowledge with qualitative inquiry. In addition, the collaboration offered students and faculty an opportunity to work closely with community members. The result was a layered and more complex understanding of on-going identity negotiation on many levels. This project not only served to cross academic and social boundaries on campus, but also helped negotiate a new, shared academic identity between the students and faculty associated with the three courses.

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in a prudently managed round-up that results in our being able to turn the DDD's back out onto the range.

Our experience shows us that there are currently three areas requiring the greatest amount of attention to constraints and opportunities of adjustable-fence corralling: (1) cooperation between Technical communication and other disciplines in incorporating specific disciplinary viewpoints into course and program design instead of making a non-specific humanities approach the frame for "teaching thinking" (epistemic); (2) establishing a rhetorical approach by opening up the genre prescriptions favored by DDD's to expand the repertoire for constructing and presenting an argument available to all the li'l dogies, especially introducing electronic text and visual representation (rhetorical); (3) sharing physical and intellectual resources by working closely with other disciplines' faculty and program to define the purpose and expectations in crossing borders and merging knowledge pools (economic). Much like Star & Griesemer's description of boundaries in knowledge—making, these fences are now movable through several dimensions—expanding, contracting, stacking, interpolating, multiplying and the

like rather than being limited to expansion and contraction alone.

The prime illustration for the approach to prudent expansion being used at UHD is the recent acquisition from the Criminal Justice (CJ) program of responsibility for a course in documentation and technology. Originally a "training" course that introduced students to the range of technical support for making presentations and mastering software use, the course has been renamed Technical Communication and Technology and will be offered under the aegis of the Technical Communication MS as a course that addresses the epistemic and rhetorical concerns of both technical communication and criminal justice, while providing much needed economic support. Cooperation among original and current technical communication faculty and original and current criminal justice faculty produced the ability to improve corral conditions for both by moving fences to design a venue for

- Improving techniques of program analysis;
- Increasing understanding of the role of statistical representation in both disciplines;
- Moving beyond print text to understand the importance of visual presentation and electronic representation;

## **Developing a Technical Communication Curriculum for an Interdisciplinary, Vertically Integrated Research/Teaching Initiative**

Linda Driskill, Rice University  
Julie Zeleznik, *Rice University*

*Keywords: multidisciplinary, Cain Project, syntheses*

How do technical communication programs help departments devise curricula for novel research/teaching initiatives, particularly those that are interdisciplinary or vertically integrated? At Rice University, such an initiative began during summer 2003, and our technical communication program, The Cain Project in Engineering and Professional Communication, was funded to collaborate on its planning and implementation. This collaboration is challenging primarily because the initiative is interdisciplinary, involving three mathematical science departments that are

- Assisting in the demonstrable necessity for knowledge of how to turn data into information;
- Supporting enrollment figures as the technical communication master's seeks to establish its constituency within and without UHD boundaries.

The result to date is that both programs have increased their consistency and coherence without overwhelming the resources of either one. In addition, it has added to the interest of curriculum in both, and we look forward to significant growth in market among other disciplinary areas. Thus it has become a prime example of confirming the prudence of expanding a technical communication program by moving fences and crossing boundaries.

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vertically integrated, involving several dozen faculty, post-docs, graduate students, and undergraduates.

In this presentation, we argue that the interdisciplinary, vertically integrated nature of the research/teaching initiative poses unique challenges to devising a technical communication curriculum. Specifically, the participating faculty from the mathematical science departments has not fully realized its interdisciplinary potential (in part because the initiative is in its infancy). As a result, the majority of the participants are engaging in what Julie Thompson Klein

(1996) would define as multidisciplinary—they are working together "by virtue of mere logistics"—rather than collaborating in an interdisciplinary fashion to achieve "syntheses" or results "greater than any single disciplinary approach" (p. 58).

The task before our technical communication program, then, is a complicated one because of these factors and because of their relationship to our short and long-term pedagogical/ curricular goals. That is, we have to work immediately with faculty from the departments to help them integrate communication into their existing courses and to implement the writing, presenting, and designing that students (undergrads, graduate students, and post-docs) need to learn in our stand-alone technical communication workshops. Unlike ordinary courses and labs that have semester-long time horizons, the three, possibly five-year grant will challenge students to write for future audiences they will not know personally. Although these short-term goals are challenging enough, they are complicated by the long-term vision for this vertically integrated curricular initiative as interdisciplinary. In other words, we have to formulate communication activities, pedagogical strategies, and possibly other stand-alone and linked courses that we and the mathematical science faculty can use to enable all participants to engage in more productive interdisciplinary collaboration.

## **Background**

In May 2003 the National Science Foundation accepted a Vertically Integrated Grants for Research and Education (VIGRE) proposal from Rice University's three mathematical sciences departments: mathematics, statistics, and computational and applied mathematics. Participating faculty from these departments devised six research/teaching groups.

Each interdisciplinary group is comprised of approximately one to two principal investigators (faculty), two post-docs, four graduate students, and six undergraduate students, and each group focuses on one research problem. For example, the "space weather" group, which includes some physics faculty, works on

models to simulate what types of variables bring about certain kinds of space weather. (This work has a variety of meteorological and oceanographic applications.)

So while all group members participate in a variety of research activities aimed at addressing their research topics, faculty and post-docs from these groups also teach "background seminars" to introduce undergraduates to core concepts necessary for their understanding of the research area, "junior seminars" to introduce undergraduates to issues particular to a research topic, and "research seminars" to introduce graduate students to that topic. In addition, all groups meet monthly to describe and discuss their research progress.

## **Cain Project Role**

We try to collaborate closely with these mathematical scientists to develop shared understandings of both their general and discipline-specific communication strategies. However our role is complicated by the decentralized administrative plan of the VIGRE coordinators, which makes collaborating efficiently with faculty to conduct our communication instruction a challenge.

Given this, our technical communication program does integrate communication instruction into background courses and seminars and offers separate workshops on writing group reports, visual design, and oral presentations, as needed by graduate students and post-docs. We also coach undergraduate presenters and conduct thesis-writing courses for graduate students. Additionally, we also encourage groups to use a web-based, online research site to store data, to construct their plans and reports, and to communicate with group members.

## **Assessment**

We are interested in understanding the ways cultural predispositions of various kinds affect communication processes that organize group work and shared understandings. Disciplinary cultures appear to differ substantially in regard to preferred problem selection, problem-solving methods, interaction style, and ethnic and gender membership. To

understand these issues, we are conducting surveys and interviews with participants and observing classrooms and labs. We are also using traditional measures to record improvement in student performance of presentations, posters, and written reports. Finally, we plan to ask participating mathematical science faculty to evaluate the Cain Project's interaction with them in the VIGRE project.

### Questions

What ways have others addressed the issues of generating technical

communication curriculum for an interdisciplinary initiative such as this? What types of writing, designing, and/or presenting assignments could encourage instructors and students to engage in more interdisciplinary collaboration? How would these assignments complement the more traditional assignment genres (e.g., lab reports)? What models from industry can we adopt to facilitate communication and collaboration within each group and among all groups?

## Technical Communication Faculty: Jumping the Borders

### Transforming Composition through Twenty-first Century Technologies

Dwedor Ford, *University of Arkansas at Little Rock*

*Keywords: computer technology, academic writing, audience*

Students are expected to have baseline technology skills when they enter UALR, beginning with registering online. Responding to the need to introduce technology into core courses, Dwedor Ford teaches her students academic writing

using computer technology and the basics of technical writing; she focuses on document design, recognizing audience needs, and producing documents that address those needs.

### Teaching Technical Writing in an Interdisciplinary Minor

Suzann Barr, *University of Arkansas at Little Rock*

*Keywords: consulting project, portfolio, business*

The interdisciplinary Information Technology Minor at UALR was developed initially for liberal arts graduates seeking technical skills to make them competitive in the job market. Suzann Barr teaches a six-hour capstone course within the minor in which student teams complete a consulting project

and each student produces a portfolio that demonstrates technical and soft skills in hard copy, CD, and CD business card formats. Business correspondence, resumes, document design, and graphics, as well as artifacts of business technology skills, are included in the portfolios.

### Meeting the Needs of Diverse Learners: Applying Universal Design for Learning in Technical Writing Courses

Betty Freedland, *University of Arkansas at Little Rock*

*Keywords: pedagogy, learning, careers*

Using the theory, methods, and pedagogy of the technical writing classroom, Betty Freeland is engaged in developing two programs that link the university with the community. In a \$1,000,000 grant project funded by the U.S. Dept. of Education, she researched and applied the principles of Universal Design for Learning to equip her writing classes to meet the needs of diverse learners with both physical and learning

disabilities. In another initiative, she supervised senior service learning projects of Professional and Technical Writing majors to assist in the start-up of a new program at UALR—American Humanics. The latter comprises both a minor for students and a certificate program open to the community, part of a national program developed to prepare participants for careers in non-profit organizations.



## Making the Transition from Composition to Technical Writing Administration

Meg Morgan, *University of North Carolina at Charlotte*

*Keywords: curricular changes, theoretical level, generalizations*

This summer, I will move into the position of Coordinator of Technical/Professional Writing at UNC Charlotte after nine years as Director of Rhetoric and Writing (the first-year writing program). Crossing the bridge from one program to the other requires changes in thinking and orientation and raises questions for me regarding the relationships between the administration of a composition program and one in technical/professional writing.

At CPTSC this year, I would like to raise the following questions:

- 1) What are the most significant curricular changes occurring in technical communication?

Two years ago, Greg Wickliff and I conducted a survey of members of the Metrolina (Charlotte) Chapter of the Society of Technical Communication. We asked the question: "What do you find has changed most since 1990 in terms of knowledge and skill needed by technical communicators? The overwhelming response was: "technology." Of the 34 people who responded, 30 stated or suggested that technology has changed the way technical writers work and knowledge of advanced technological skills was vital to being a successful technical communicator. Specifically:

- "knowledge of computer languages would make technical writers more marketable."
- "knowledge management solutions that include online processes and procedures, resources, business tools, and databases" are necessary.
- "technical writers today need project management skills, tech skills, or at least the ability to quantify and qualify technical information."
- technical writers need to "stay up to date," need "more aptitude for technology," need web development

skills, need a "technical perspective."

- In addition, others said that technical communications professionals need "team skills, negotiation skills, flexibility, and focus."

As a person more involved in administering a composition program, I find the responses disturbing. It seems that the professional need is for technology, not necessarily for reading, writing, or thinking abilities. There is no mention of knowing at a theoretical level.

- 2) Are these abilities assumed or are they seen as unnecessary?
- 3) How does one create academic programs that emphasize reading, writing, and thinking with the overwhelming need for technology?

I also have other questions about changes in technical communication not addressed by the survey.

- 1) What might be some generalizations administrators could make about the students enrolling in technical communication programs at the graduate level? How are the curricular needs of graduate students different from those of undergraduates? How are they different from the needs 5–10 years ago?
- 2) I've taught at the graduate level at two institutions in the past three years. I assumed that graduate students would need (more than undergraduates) to be able to theorize their work. However that assumption is not what the graduate students said they needed.
- 3) One of the most significant tasks of an administrator of a first year writing program is finding and training teachers, whether they are graduate students or not. What is the state of teacher training for



undergraduate courses in technical communication?

- 4) In an age of dire state budgets, what is the prediction for the future of technical/professional writing programs in state universities? At one state university in the south, there is a movement away from the

humanities and toward professional education. What might be the repercussions of such a move on technical writing programs?

I realize that I have posed questions and not statements. I hope such questions will provoke some discussions among members at the October meeting. Thank you.

## Straddling the Technological Divide: Visual and Electronic Technologies

### Considering Borders between Print and Electronic Media

Melinda Turnley, *New Mexico State University*

*Keywords: web design, multimedia, electronic communication*

Digitalization is blurring, if not dissolving, borders between print and electronic media. Therefore instruction in multiple media and online environments is becoming increasingly important for students' professional development. As we incorporate new technologies into our courses, however, we should reflect on the assumptions and practices that shape our curricula.

In fact, these technical and textual shifts raise questions about the scope of professional communication and our definitions of workplace literacy. What does "writing" entail? Even the production of traditionally print-based documents now involves a range of technical and design skills. Thus, how do teachers and administrators make responsible and feasible decisions concerning the roles of various media in professional writing courses?

If professional writing curricula should engage multiple media, how can instruction balance general rhetorical strategies and medium-specific skills? Should programs offer special courses on topics like web

design, multimedia authoring, and electronic communication? Or should work with multiple media be a component of all technical communication courses?

Questions such as these, of course, do not have easy or singular answers. Effective negotiation of relationships between print and electronic media should balance consideration of local institutional situations and larger professional contexts. Thus, I suggest that curricular decisions about the integration of communication technologies engage issues such as

- the training and backgrounds of teachers within a program;
- the needs and experiences of students;
- the availability of technology resources, funding, and technical support;
- curricular and degree requirements;
- disciplinary (ours and others) frameworks and practices; and
- industry expectations.

### Teaching the Visual: Understanding our Approaches

Tiffany Craft Portewig, *Texas Tech University*

*Keywords: visual, textual, rhetoric, language*

Despite the significant presence of the visual in the field of technical communication, we have not yet achieved a unified pedagogical approach to the visual. Because of the traditional emphasis on written communication, there is often a

conflicting boundary between teaching the visual and textual that often results in the visual assuming a secondary position to the textual. Examining technical communication textbooks also reveals a similar trend. Most often, there are only a few chapters

dedicated to the visual and/or they are located towards the end of the textbook. Perhaps this treatment of the visual could be attributed to discrepancies in how to approach visual instruction.

As often mentioned in scholarship, it is the ascendance of the visual in the field that warrants our responsibility to equip students with this knowledge. However, the plethora of visual terms and concepts employed in scholarship and pedagogical materials only further complicates the visual. It is often difficult to recognize and convey to students the functions and relationships between the numerous visual concepts, such as visual rhetoric, visual language, and visual communication.

To understand these problems surrounding the visual, I conducted research into how the visual is currently taught in technical communication courses, at both an undergraduate and graduate level. This research examines how we define, frame, and teach the visual in the field of technical communication. My method for gathering this data involved distributing an online survey to more than 100 technical communication faculty and instructors. The survey asked participants to respond to questions regarding the following:

- Courses in technical communication programs/departments that include a visual component, with brief course descriptions;
- Visual concepts, theories, and/or applications taught in these courses;

## What about Video?

Pete Praetorius, *Matanuska-Susitna College*

*Keywords: Nonlinear video, nodes, user-centered*

A few years ago at this conference I argued that professional writing instruction should play a central role in professional and technical communication programs ("What About Writing?"). I still believe in the importance of writing and that writing should play a foundational role in professional and technical communication programs, but the times are changing, and as everyone in this room knows, writing is no longer the only means of providing user-centered

- Textbooks and other pedagogical materials and methods used to teach visual concepts.

The research reveals valuable insight into how technical communication programs approach visual instruction, including the "visual vocabulary" employed in these courses. Although there are some similarities between how these programs/departments teach the visual, there are numerous approaches to visual instruction that require further examination, discussion, and analysis.

This paper is meant to facilitate a larger discussion of visual instruction in technical communication. Through my research, I attempt to address the question of whether we are effectively teaching the visual in our courses and uncover gaps in our current pedagogy. Specifically, how can we ensure that we are adequately preparing students for this medium? What basic components must we incorporate into our pedagogy? Furthermore how do we define the visual medium within our field, and how can we best utilize the borders the visual shares with other areas of technical communication? My paper seeks to critically examine the current state of visual instruction in our field and promote an assessment of our teaching methods and practices. If we are to prepare students as technical communicators, we need to continually re-examine the place the visual holds within our field to guide future approaches to visual instruction.

information. Writing, along with some supplementary visuals, used to be all we needed to worry about. Now written documentation is a module within a communication mix.

Within the field of technical communication, writing has begun to share the stage with video and audio presentations—particularly nonlinear video. Nonlinear video is presented in a digital format that, like flipping through the

chapters of a book, allows users to pick the nodes of information that are most relevant to their immediate needs. As with creating a written instruction manual or product documentation, creating technical communication videos require videographers to think of those who view their videos as "users". Users are those who view videos with the express purpose of gaining information to complete a task or become better informed so that they can then go on to make an educated decision.

Despite an increasing need for nonlinear videos, many technical communication programs do not offer courses in making user-centered videos. We could leave the teaching of video classes to the different media arts programs, but the problem with doing so is that the instructors within such programs will likely not be concerned with the field of Technical Communication or with task-oriented video. Instead media arts programs focus on reporting or film production. Just as many professional and technical communication programs have stepped up and assumed the responsibility for teaching Web design and usability testing, these programs should also consider offering courses in user-centered video production and nonlinear video editing.

Of course offering such courses is not a simple task. Departments wishing to enter the video realm will face large expenses—both in equipment and in additional personnel. In fact, as expensive as video

equipment is, buying cameras and computer editing stations may be easy compared to finding qualified instructors. For example, over the past year two searches have been conducted at Montana Tech for an instructor to teach the video production and other new media courses. From these two searches, only one candidate qualified has a PhD in Technical Communication. Other qualified applicants have MFAs in media arts, but little (or no) experience in technical communication or the production of user-centered products.

Despite this lack of qualified people, I don't think we should throw up our hands and forget about video. I think we are at a similar spot in our history as we were before the technical communication PhD—a period when technical communication courses were taught by folks who did their PhD work in literature. Just as these literature folks went on to join the ranks of those teaching technical communication, I think we can encourage some with MFAs to join our ranks and help teach user-centered video. In time, these pioneers will be joined by people specialized in video production in their technical communication PhD programs. But for this scenario to happen, professional and technical communication departments need to act. Personally, I'm not a big fan of video—I don't even own a TV set. But our field is changing, the presentation of user-centered products is changing, and like it or not, we must change as well.

## **Border? What Border? Documents are Interfaces**

William Hart-Davidson, *Rensselaer Polytechnic Institute*

*Keywords: interfaces, information, visible and viable artifacts*

Documents are interfaces. In situations where documents help us do tasks—whether simple or complex—they look and act like software interfaces. Academics in technical communication are in the business of helping people learn to design, build, analyze, and assess these interfaces. Yet only occasionally do we admit this responsibility. Judging from our curricula, our research journals, and our textbooks, we still view this responsibility as somehow distinct from what we do to teach "technical

writing," "technical editing," or "document design." It isn't.

Consider this position paper as an example. It will have to support a fairly complex range of uses if it is to fulfill the goals of a CPTSC position paper. As I compose it, I see a representation of the artifact that will ultimately appear before a panel of reviewers who will use it to make a decision. But before any reviewer scans this sentence, it is likely that the visually defined functional areas of this document that correspond to the semantic labels "title" and

"author information" will have been consulted to facilitate logging, sorting, and distributing this text along with many like it. An object like the author information box is fairly specialized, serving a narrow range of relatively simple tasks. But not all of the objects in this document are so simple.

Scan the document quickly for a moment. Can you identify some functional units of the text that would support the more complex decision making of reviewers? For example, they probably want to see "the position" and they want to see some indication that the position corresponds to the conference theme. They also want to assess the argument that the presenter is likely to make to support the position. This argument should provide some indication of the validity of the position and, just as importantly for the task of putting together a quality conference program, indicate what kinds of discussion might ensue as a result. Let's make this last task a bit easier.

### **The Position**

Technical communication programs should accept responsibility for the design, construction, and evaluation of interfaces wherever they may appear on screen or off. We shouldn't be sole proprietors of this enterprise, of course, but rather partners with allied fields who have a stake in the interactions a given interface is intended to support.

### **The Argument**

There is no difference between documents and interfaces, functionally speaking, when we consider them from the point of view of users. Both work best when they seamlessly mediate user tasks. Both are a collection of informational objects, blends of tools and symbols that directly support user goals, and—because they are interpretable—remain flexible enough to support them indirectly. The day is coming when information systems no longer distinguish between documents and

interfaces; they will only see assemblages of "objects." Whether the document as an artifact remains visible and valuable to people may depend on the context of use, but it seems likely that for many traditional technical communication genres—help, procedures, reference documentation—the blurring of text and interface is fully underway.

### **Points for Discussion**

- Interfaces are typically crafted to hand over maximum control time to the user. The best interfaces allow the user to say when and how the important objects should be displayed, and, often, when and how they should function. Is the same true of the best documents? And what does this do to "authorship?"
- The information objects in interfaces typically have an attribute called "state" that defines, among other things, how they can behave. For example, interface objects may be hidden or displayed, active or inactive, expanded or collapsed all based on some set of conditions that are present in the task environment. Do/should information objects have "state?" If so they have little ability to "hold state" across contexts...is this something that makes documents more or less usable?
- Although both documents and interfaces are blends of tools and symbols, each is traditionally more heavily composed of one or the other. Or at least we treat them this way. Single-source systems and other modular document software seem to operate on the assumption that it is possible to treat documents as more tool-like...is it? What does this mean for writers and readers/users?
- This document as an interface?

## Portfolios and Usability Metrics: Approaches to Assessments

### Using Portfolios to Help Students Navigate Across Borders

Jennifer Turns, *University of Washington*

Judy Ramey, *University of Washington*

*Keywords: borders, portfolios, professional societies*

The concept of borders provides a powerful lens for understanding the student experience in technical communication. During the educational process, students navigate across borders between teaching and research, between theory and practice, and between nations, cultures, disciplines, and professional organizations. Asking students to think about their experiences at such borders can give rise to interesting questions, insights, and concerns. Student portfolios, developed over the course of their academic careers, provide students with a powerful mechanism for reflecting on and integrating their experiences at these borders.

Crossing borders between research and teaching challenges students' understanding of learning: A new emphasis on research experiences for undergraduates asks undergraduates to confront the challenges of integrating themselves into formal research teams and processes. This active engagement with the process of creating knowledge can, over time, lead students to understand learning in a new way.

Crossing cultural borders illuminates the impact of difference: With the growing significance of the global marketplace, issues of national and cultural borders have become important to the technical communication profession. These issues, in turn, have found their way into technical communication curricula, with students studying national and cultural differences and how these differences affect common technical communication activities. Also, many students cross these borders literally

by taking part in exchange programs and other intercultural experiences. These experiences can open students up to a more subtle understanding of the impact of difference.

Borders shed light on the complexity of professional identity: Students in technical communication are often developing knowledge and skills in complementary content areas. They look to a range of disciplines for ideas and to a range of departments for their courses. Although such disciplines and departments may have interests complementary to technical communication, their differences in language, priorities, and assumptions make it difficult for students to cross these borders. Additionally, as students move closer to becoming professionals, they begin to align with professional societies. They must ask themselves about not only the commonalities among the professional societies but also the differences and the meanings implicit in crossing these borders. By explicitly reflecting on these issues, students can better understand their development of a professional identity.

Portfolios, built up over the student's progress through their academic program, provide a means for students to use their various curricular and extra-curricular experiences to explore their experience of borders and border-crossing. As they accumulate materials and records of their experiences and augment them with reflective essays, they can build up a nuanced understanding of their evolution and maturity as an emerging professional technical communicator.

### The Pedagogical and Programmatic Issues of Incorporating ePortfolios

James Dubinsky, *Virginia Tech*

*Keywords: assessment, ePortfolios, credibility, program assessment*

When we talk about assessment, we often have a number of issues on the table, including student learning and accountability

for the quality of that learning. On a personal level, we may be thinking about using the findings to help guide



improvements or adjustments to our pedagogy; on a curricular level, we may be seeking input about the relationship of a course to a program, and perhaps even to the student's overall learning experience. In many ways, as a result of these issues, we can't separate assessment from thinking about teaching as a scholarly activity, if for no other reason than assessment provides us with a means to document outcomes and examine hypotheses.

Margaret Miller (1998), a past president of the American Association for Higher Education (AAHE), made a strong case for the need to "treat teaching as a scholarly activity that can be shared, documented, studied, reviewed, rewarded, and continuously improved" (vi). One of the most promising ways to assess teaching and address the need Miller mentions is the teaching portfolio.

Teaching portfolios document the complexity and individuality of teaching, increase professional accountability, and have the potential to foster a culture of teaching and learning. They make teaching a rich, collaborative enterprise by meeting the three goals of the scholarship of teaching: they are public, subject to critical evaluation, and usable by others in the community (Shulman, 1998, p. 5).

As part of a "new wave of assessment" (Lankes, 1995, p. 1), teaching portfolios have the potential to enable teachers to document claims with empirical evidence; they also offer a dramatically improved means for evaluating teaching and learning (Cambridge, 1995). As a tool to improve student learning and teaching, they offer a means for faculty to reflect on classroom practice and allow comment by colleagues. More important, they are a means for institutions to demonstrate accountability to stakeholders and to initiate institution-wide reflection about assessment and the scholarship of teaching.

In terms of program assessment, however, teaching portfolios only offer part of the picture. We need to document student learning. To do so, we need to collect, organize, and display student work. Electronic portfolios, or ePortfolios, offer a

viable method of accomplishing those tasks. They become a place for students to display work in all courses in an academic discipline or program. More important, they offer added value for students, as they can use them to reflect on their work, and create views for friends, relatives, and potential employers. After sharing views, conversations about teaching and learning follow and often lead to strategies that give portfolios credibility as assessment instruments. At the University of Texas at El Paso, for example, the growing use of portfolios led the Center for Effective Teaching and Learning to develop criteria for evaluating them to promote standards for better teaching and learning.

In my talk I will offer an overview of ePortfolios as a vehicle for both course and program assessment. By presenting a rationale for ePortfolios and a discussion of what we're learning at Virginia Tech from using them, I hope to foster conversation about this method of documenting teaching and learning and continue a discussion about a transformation that Thomas Angelo (1997) described as moving from "a teaching culture that ignores what is known about human learning to one that applies relevant knowledge to improve practice" (p. 112).

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## Crossing the Boundaries of Instruction: Assessing Web-based Courses

Janice Tovey, *East Carolina University*  
Michelle F. Eble, *East Carolina University*

*Keywords: certificate, effectiveness, learning*

The Masters Degree in English/Technical and Professional Communication at East Carolina University went "online" in Spring 2002. But our web-based courses and an online post baccalaureate certificate have been in place for several years. At this point in time, we have a number of students who have completed all of their courses online, although they are resident students. Others have incorporated both traditional and online classes in their programs, although those enrolled in the certificate program often opt to complete the Masters. As our programs flourish and student enrollment increases versus, we must have continuing assessment of the courses.

We recently conducted survey research to discover students' responses to our web-based courses and online programs. We wanted to know their reactions to the course materials, teaching methods, interactions with faculty and other students, as well as their competence in the particular subject area following such as course. Although we are discovering that students are generally satisfied with all aspects of the courses, they express valid and noteworthy concerns.

This survey provides one method of assessing the effectiveness of our instructional method and learning environments: the web-based course. At CPTSC in October 2002, the discussion following a panel about distance learning courses focused on the need for

assessment of such courses. Assessing instructional methods, student competency, and programs themselves is important and is especially so with our web-based courses and other forms of distance learning.

Our survey was intended to discover what problems or difficulties face the distanced student and, in turn, assess the pedagogical and technological aspects of online learning and quality of instruction. From this research, we want to address the pedagogical and technological issues that create or exacerbate the difficulties that face students. As with all courses, constant fine-tuning is necessary. As technology changes, as student expectations change, and as instructors adjust and explore new developments, our web-based course materials and strategies must also adapt.

Some issues we would raise include the type of assessments that are done for online courses, the reactions of new students to this non-traditional learning environment, the difficulties facing students and faculty, the variety of technologies used by students, the technical support provided by the university, the availability of university resources to the distant student, and, especially, the changing roles and expectations of students and faculty in a web-based course. Thoughtful examination of courses, pedagogies, technologies, students and faculty will lead to improvements in web-based course and online learning environments.

## Usability Metrics: Drawing Borders Ourselves

Steve Benninghoff, *Eastern Michigan University*

*Keywords: online portfolios, theory/practice, process/product boundary*

Two borders that are important in a primarily undergraduate Technical Communication program are the theory/practice borders we face vis-à-vis students, and vis-à-vis the practitioners who hire students. In practice these borders tend to overlap—our concerns as teachers of course do not exactly mirror those of students. Although our perspective is conceptual, wishing to

teach them how to fish—not surprisingly—their focus is to get out there fishing. Similarly some practitioner perspectives are to "just get out there and do it"—experience is the best teacher. Thus a border we are often facing is the understanding and valuing of a conceptual perspective, the theory/practice border, sometimes played out in student and (some) practitioner

valuing of product over process. At Eastern Michigan University we are beginning the push to move student portfolios online. Although online portfolios are not exactly new, I suggest that an approach to designing and developing online portfolios employing usability metrics can significantly help to bridge the border between active practice and conceptual approaches.

At a recent panel of our local chapter of the Usability Professionals Association, Tom Brinck, Chief Usability Officer of Diamond Bullet Design, gave a presentation arguing for the use of usability metrics, so that user-centered web site development can produce replicable data throughout its process, creating presentable arguments for the design progression. Extending this idea to our current situation at Eastern Michigan, students in my fall introduction to the major course are going to research and design a set of metrics to measure the efficacy of a template for online portfolios for our majors. In doing so the students will discover that the artifacts they produce for their courses are not enough that, although practitioners may say what they want is "experience," they quite often mean much more than the professional artifact—indeed they mean the ability to research and respond to the

specific contexts and rhetorical situations of a particular performance. Thus the theory/practice border and the common process/product boundary that confronts us as teachers can be reconfigured.

Furthermore in working to define the metrics to test whether such portfolio websites meet the needs of their various users, students will experience the kind of knowledge design and management technical communicators have long practiced, but all too frequently has been chalked up to the skills of an individual, rather than the skills of our training and profession.

Indeed such an approach to online portfolios offers a means to bridge several other borders that are confronting us as well, such as "corporate university" pressures of program review (which we are now undergoing), boundaries of specialization versus generalized programs, as well as the personal/professional boundary suggested by Geoffrey Sauer two years ago. I thus argue that a metrics-aware design process of online portfolios, program-wide, offers a potent means to articulate our goals and practices in ways that enable negotiation of several of the boundaries that are shaping our programs today.

## Institutional and International Boundaries

### If I Spent All That Time Analyzing Audiences, I Wouldn't have Time for My Real Work

Marjorie Rush Hovde, *Indiana University-Purdue University Indianapolis*

*Keywords: engineering, communication, collaboration*

Teaching engineering communication is frequently challenging for a variety of reasons, but one of the central ones is that many engineering and technology students as well as faculty members see communication as separate from their "real work," as did my engineering student who supplied the quotation in the title. In addition, they often see communication as merely focusing on "form" and not "content." And many are convinced that they just are not capable of learning that "form." So they leave it to the "experts" so that they can do their "real work."

For those of us who teach "engineering communication," questions frequently arise

about who should teach students workplace communication abilities appropriate to their discourse communities. Despite many years of elegant arguments in rhetoric and philosophy scholarship that discourse and meaning cannot be separated, the philosophy of language that sees it only as a container for meaning can hinder genuine collaboration between technical faculty and communication faculty. If content is separated from form, technical communication courses are often also devalued by students. In addition, technical communication courses may not be as pedagogically effective if they are divorced

from a meaningful context and purpose for the communication.

In our institution, we have traditionally offered technical communication courses that focus on introducing students to workplace communication conventions. We emphasize the processes of analyzing a rhetorical situation and moving through steps that are typically necessary in creating a technical communication artifact. These courses have been highly valued by engineering and technology faculty. However given that workplace communication conventions are complex and take time and experience to master, several people in technical communication and engineering are exploring how we might collaborate on strengthening student technical communication abilities in the context of their senior design projects.

One of the advantages to such collaboration is that faculty might more

clearly illustrate connections between typical engineering design processes and effective communication design processes. Another advantage is that students will gain concrete experience working to solve real engineering problems for non-academic clients, but will do so with guidance from a faculty member with expertise in workplace communication variables and in engineering practices.

In such collaboration, several questions arise. How will attitudes toward form and content affect how engineering faculty members and technical communication faculty members work together? How can we make this relationship mutually beneficial? How will students understand why communication is more than a supplement to their engineering work? I plan to discuss these and other related issues in this presentation.

## **Across the Great Divide: Embedding Technical Communication into an Engineering Curriculum**

David J. Adams, *University of Maine*

*Keywords: engineering, "lock-step", guiding principles*

The University of Maine has begun a multi-year effort to redesign the way it teaches technical communication to students in the College of Engineering. At its core, this new design will mean replacing the existing requirement of a stand-alone course in technical communication (3 credits) with a sequence of three communication-intensive engineering courses. This sequence will be followed by a year-long capstone design course in which technical communication plays a substantial role. The capstone course will also provide the opportunity for a final assessment of the endeavor through project reports and presentations.

The existing modes of instruction had proved problematic in several ways. The English Department found continued difficulty in adequately staffing the required number of sections of its technical communication course (EN 317), which is nominally designed for English majors rather than engineers. Both engineering faculty and employers of the university's engineering graduates shared the opinion that students do not "transfer" to

engineering contexts the skills they might learn in EN 317, and that perhaps some of those skills are not sufficiently appropriate for such contexts.

These problems are not unique to the University of Maine, and the communication-intensive model by itself is certainly not a radical innovation in 2003. And yet, the overall plan may prove interesting to others involved in such endeavors because of its structure and approach. Several guiding principles marked the development of this plan:

- Department-based core competencies derived from faculty and alumni/employer surveys;
- Technical communications instruction embedded, reinforced, extended and assessed at each level of the curriculum;
- Deep levels of integration with engineering content;
- Multiple layers of support for engineering students;

- Extensive planning and design that recognizes constraints and content pressures, while fitting within each department's approach to implementing ABET standards.

Because the university has a "lock-step" curriculum in engineering, it will be possible to phase in the plan for each entering class of engineering majors, creating, in effect, cohorts of participants. English department faculty will use a consulting model in their

collaboration with engineering counterparts, with intensive involvement that gradually gives way to advising and training. This effort is supported by a grant from the Davis Educational Foundation. This presentation will outline the plan and invite discussion regarding the challenges it presents to both engineering and English department faculty, particularly around the question of what it means to embed communications instruction within engineering content.

## Reaching Out: Incorporating the Intercultural in our Programs

Dianne Atkinson, *Purdue University*

*Keywords: global markets, engineering, Germany*

New opportunities for program development are emerging as higher educational institutions are pressed to prepare graduates for the challenges of working in global markets. As communications program designers we must reach out, going beyond disciplinary boundaries to acquire new expertise. We need more investment in incorporating the "intercultural" in our communications programs.

This past summer the Purdue School of Mechanical Engineering offered Purdue undergraduate engineers the opportunity to earn engineering credit in professional and technical communications by completing a "short course" at an international site for the first time. The course I developed was offered at the International Department of the Universität Karlsruhe in Germany.

As a position statement, I would like to suggest to CPTSC Annual Meeting participants that we affirm the importance of developing expertise in intercultural communications and that we welcome opportunities to situate communications programs where intercultural challenges can be addressed. I also believe such programs should incorporate different levels, ranging from the interpersonal to the organizational and even "global" levels. The importance of industry partners in developing these new programs is also a significant issue: industry partners provided important resources and "on site" opportunities for the Purdue course in Karlsruhe, Germany.

The Purdue course was a first attempt to put together a communications course

that would introduce Purdue engineering students to global challenges. In fact, the first concern was to establish currency with ongoing conversations about "globalization." U.S. engineering students, with little opportunity to pursue university level studies in history, economic, or political science, need to understand these value-laden and divisive perspectives. We also considered how and why "global markets" are evolving, how new products are developed for those markets, and how organizations understand their interests. Due to reported "failure rates" as high as 40% when families are relocated by international companies, we also included some discussion of "identity" as an issue for mobile persons and systems. We looked at both abstract dimensions of culture (e.g., private versus public space; personal versus professional identity) that would apply to any context and also worked through applied exercises (e.g., "direct" versus "indirect" communications patterns). Working with role-play examples provided a "feel" for the challenges of adjusting to different communications patterns, and also specifically, to German/American adjustments.

These course particulars are included as illustrative materials only in the hope of promoting CPTSC discussion about how to reach out and be interdisciplinary helping students to develop the intercultural communication competencies they need as technical professionals working in global markets.



## Internationalizing Technical Communication Programs: Teaching and Research Collaborations with the Universidad de la Habana (Cuba)

David Alan Sapp, *Fairfield University*

*Keywords: cultures, foreign countries, joint programs*

In the 2002 keynote address at the meeting of the Council for Programs in Technical and Scientific Communication, Tom Huckin called for increased awareness of contextual, global, and sociopolitical issues in technical communication programs. He argued that the scope of technical communication teaching and research should be broadened to include partnerships across cultures. Efforts to create joint programs with universities in foreign countries are evidence that internationalization is imperative. One such effort is the professional writing program at Fairfield University that recently established an international partnership with the Universidad de la Habana in Cuba. This partnership involves teaching and research collaborations with scientific, business, and technical writing faculty. For participating faculty and their institutions, the benefits are many: co-authoring publications and conference presentations, teaching exchanges and site visits, shared funding opportunities, increased visibility for an understudied region, and the increased internationalization of courses, programs, and the academic literature. Participating students develop greater intercultural awareness, a more global outlook and sense of engagement, and a better idea of how professional writing skills can help solve real-world problems.

As director of the professional writing program at Fairfield University, I prepared for this partnership in the following ways: I familiarized myself with discussions regarding international technical communication that have taken place in venues such as Intercom, CPTSC proceedings, ATTW conference presentations, and the interdisciplinary literature in fields such as intercultural and international communication and the growing body of literature on service

learning in global contexts. In addition, I conducted research on higher education in Cuba with particular emphasis on technical communication. This work resulted in increasing our program's awareness of Cuba's political and economic position in the global order. I also explored the philosophical, epistemological, and methodological underpinnings for developing cross-cultural research agendas. This process included debate over different models of international partnerships; I proposed eschewing a charity-type model in favor of a more participatory one and maintaining vigilance that neo-colonial relationships (i.e., one-way dissemination of knowledge, opposite flow of resources, dependency, etc.) not result.

In international and cross-cultural partnerships like this one, there are many challenges to be overcome such as scarce resources (e.g., paper), technological constraints (e.g., digital divide), geopolitical factors (e.g., no direct mail between the U.S. and Cuba), varying education levels of participants, linguistic issues, and real political dangers. In order for technical communication programs in the United States to develop successful international partnerships, it is important for administrators and faculty to: discuss how to coordinate site visits; create networks among universities and funding agencies; involve graduate and undergraduate students in the process; co-author and co-present scholarship in both sites (and both languages); and ensure a mutually-beneficial exchange of resources, information, and recognition. These collaborations involve substantial time, resources, and commitment from all parties involved. Nevertheless they are tremendously beneficial to the individuals, programs, institutions, and communities.

## Positioning Technical Communication Programs in Academic Contexts

### Institutionally Mapping Professional Writing

Jeff Grabill, *Michigan State University*

Jim Porter, *Michigan State University*

*Keywords: reconfigure, professional writing, community action*

We think it is critically important—especially in a time of declining budgets—for professional writing programs to position themselves in a vital and robust location in the university and probably outside it as well. What institutional location(s) can best guarantee that professional writing thrive and also provide it an opportunity to have significant impact?

We don't have a single, simplistic answer to that question. Our main answer is, it depends. It depends on a lot of local, contextual factors: the type of program, the identity and interests of the faculty, and on the mission and identity of the university and its particular departments. But we do offer one overall conclusion: In terms of space and institutional location, professional writing should in part situate itself outside the university (especially programs within humanities departments and colleges) but also in multiple locations, both inside and outside the university.

We start our inquiry by challenging the binary that keeps professional writing from fully contributing to a broad social, political, and cultural environment—i.e., the long-standing inside-outside binary that separates the university from the world of work, the public sphere, the culture at large, and local communities. Of course professional writing has always done a better job than most fields (and certainly most humanities fields) of establishing connections with business and industry. But how much does professional writing really influence corporate communication practices (versus occasionally providing a useful service)? And how much influence does the field have in other spheres such as government, public policy, and community action? We are keenly aware that professional writing does not have a strong public presence. Still, nobody even knows we exist.

What if we could create a different kind of institutional space, one that blurred the inside-outside division? What if this space did not require that professional writing abandon the academy so much as restructure the academy (and its place in it) in a way that would enable more productive contributions in the public sphere? What would such a restructuring look like? (At this point it would be nice if we could show you a map. We have one in progress, but it's too messy right now for public display. Sorry.)

Our particular interest in institutional locations and alignments is related, no doubt, to our peculiar disciplinary and institutional circumstances: We have spent most of our careers in English Departments, but recently joined the Department of American Thought and Language at Michigan State University, which has just changed its name to the Department of Writing, Rhetoric, and American Cultures. Thus we find ourselves in a newly created professional writing program (both a BA and an MA) and at the center of a major institutional restructuring.

Given our experience, it's no surprise that we would want to focus on institutional spaces. The chief structural questions we see as critical for professional writing in the 21st century are these:

- What institutional location in the university will best support professional writing? The key issue here involves departmental affiliations—with English, Speech/Communication, and/or Writing—and whether those various alliances need to be reconfigured.
- What kinds of majors, programs, and curricula should professional writing sponsor (or co-sponsor)?
- How can professional writing sustain itself in an era of declining resources for higher education? (a problem

particularly for state-assisted, land-grant universities, that have often been the strongest supporters of such programs)

- How can professional writing work across various institutional interfaces to contribute in more robust ways to social life?

We'd like to consider several institutional structures for effecting the kind of institutional change we are hoping for. These structures are not particularly new to the university or to professional writing and some have already been developed at other institutions. However we don't see the field embracing these efforts in a comprehensive or systematic way:

- community outreach and service learning
- the professional writing major; the writing department
- the interdisciplinary writing research center
- information technology

We wonder why our field doesn't have greater presence and influence on, say, technology development, or public policy, or community-based environmental impact discussions. Why doesn't CNN invite researchers in our field to comment on communication practices? We think that professional writing should be an important critical tool for citizen action. (For instance consider the need for citizens concerned about the dredging of a polluted river to be

## **No Matter How Hard We Ignore Them, the Boundaries Remain**

W. J. Williamson, *Northern Iowa University*

*Keywords: binaries, pedagogy, administration*

As a graduate student at a technological university, ensconced among people who thought like I did about scientific and technical communication, I enjoyed the luxury of ignoring the boundaries that today define my existence. I didn't refer to my practices then as "ignoring boundaries," however. I was too clever for that. I described myself as someone who "obscured" boundaries, who practiced "dirt-kicking rhetoric" in a deliberate attempt to complicate the simplistic binaries and

able to develop local knowledge, understand "expert" knowledge, and communicate effectively to a range of public audiences.)

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dividing lines that have historically characterized technical communication pedagogy, practice, and theory.

However, now the old boundaries and binaries confront me every day as I work in the English Department of a publicly funded, Midwestern, liberal arts university that developed from the state's teaching college. I am one of only two or three members of the faculty who teaches no literature. Although I teach writing, it is professional, not creative writing or composition as others

do; most colleagues, and certainly many students, have difficulty understanding what the distinction means, if anything. Within those courses, I exert considerable effort drawing distinctions between writing and design, and between what I have come to describe as "two-dimensional" versus "three-dimensional" design. Across the university colleges and departments, colleagues ponder the differences between our programs in business communication, graphic arts, journalism, and my professional writing program. Now I am helping to develop a science writing program at the undergraduate level. Although each of these curricular entities has similarities to the others in some way, each is also separate and distinct. Sometimes we faculty who represent these programs wonder if our greatest differences are departmental (and thus political), rather than philosophical. Nevertheless it is in our best interests to keep pointing to the boundaries that others find more meaningful than we do, rather than risk collapsing programs together and most likely facing the job market in an uncertain economy.

The most significant boundaries I jump, draw, and dodge in my work are the ones that distinguish program administration, pedagogy, and scholarship. In our system, as it is with so many others, program administration is not described as program administration. It falls within the ambiguous boundaries of service. Thus with increasing frequency I find myself looking for documentation that frames the work of program administration and its interconnections with other areas of our work. For example I have made use of the

position statement posted by the Council of Writing Program Administrators, "Evaluating the Intellectual Work of Writing Administration" (<http://www.english.ilstu.edu/Hesse/intellect.htm>). Unfortunately, there is little to draw from, specifically within the realm of scientific and technical communication. Although we have engaged in scholarly discussions of how our work overlaps and interweaves from area to area, we have nothing in the way of legitimizing documents from professional organizations that express the intellectual value of our professional contributions to the institutional personnel who administer administrators.

As a community, technical communicators have invested heavily in the problem of defining and assigning professional status to our work, but we have not invested as much in communicating about the professional aspects of university life to the audiences most confused by what we do. Untenured faculty doing the work of program administration universally fear being denied tenure. Such concerns are real considering the history that the community has of seeing some of its best scholars denied tenure at institutions across the country. I am not naive enough to think that a position statement or two from the Council of Programs in Technical and Scientific Communication will solve such dilemmas, but such documents might help new faculty or established faculty launching new programs pave the way to better understandings of the intellectual commitments of people who design, build, and maintain our academic programs.

## **Making it Fit:**

### **Teaching Online Information Design in Two Programs with One Course**

Rebecca B. Worley, *University of Delaware*

Deborah C. Andrews, *University of Delaware*

*Keywords: interdisciplinary minor, Interactive Media, one core course*

The English Department at Delaware is one of four departments (the others are visual arts, communication, and computer science) that recently developed an interdisciplinary minor in Interactive Media. To serve students in that minor as well as concentrators in business and technical

writing within the department, we developed a course in designing online information. The course had to accommodate the diverse audiences drawn by these two programs as well as the sometimes rancorous politics of any interdisciplinary endeavor in an academic setting.

The English majors posed few problems. We know what preparation and knowledge they bring to the course, including their software experience. The only issues concern the role of the course in the English curriculum and its status as an elective or required course.

The Interactive Media minor presents more of a challenge. During the two terms that it has already been offered, the course has drawn undergraduate students from each of the four departments as well as other majors. It has also drawn non-traditional, continuing education students with widely diverse backgrounds. Some have sophisticated technical experience as computer programmers but little or no knowledge of website design, structure, usability, or writing style. Others have impressive graphic design talents but minimal writing skills. Still others have no specific preparation for the course other

than a general education or work experience but want to improve their job skills by acquiring new technical expertise. Yet others come to the course with well defined goals, such as designing a website for a business. Given the diverse audience for this course, its content, syllabus, assigned reading, and required projects have proven somewhat problematic, not to mention the software instruction.

More broadly, the Interactive Media program itself has had a bumpy path to approval. It is truly cross-disciplinary with courses and faculty in at least four departments and no one departmental home. Thus debates continue on its administration, including the allocation of faculty and funds and the content and assessment of courses. Our session will raise some of these issues and discuss the answers reached to date with a focus on this one core course.

## Theory vs. Practice: The Ongoing Battle

Carol Siri Johnson, *New Jersey Institute of Technology*

*Keywords: teaching methods, multidisciplinary, framework*

George Hayhoe (2002) called it the "gulf between classroom and workplace," Katherine Staples (1999) called it "the schism between academic theory and workplace practice," Bonita Selting (2002) called it the "schizophrenia of the curriculum" and Carolyn Miller (1989) called it the "virulent praxis/ techne and academic/industry polarities." The debate immediately struck me when I returned from six years as a technical writer, but is it just a difference of teaching methods, or is it also a question of exclusionary politics, a class issue? In her historical summary, Teresa Kynell (1999) noted that technical communication has the "tag" of vocationalism" and Staples dates it from the early "conflict between career education and the humanities". What is the distinction between pure academics and practical learning? Is it that college teachers have a higher social status than workers?

Most articles regarding this debate conclude that the tension between theory and practice, whatever its source, results in a rich mixture of multidisciplinary. With strong connections to both the workplace

and the university, the field is broad and intellectually stimulating. But some scholars advise a return to the teaching tradition of rhetorical theory to separate pure knowledge from the workplace.

For instance, Jack Bushnell (1999) wrote "We have, willingly or not, become training departments for corporate 'clients' who provide us with internships and fellowships" and therefore we teach "problem-solving, that is usually just another label for the useful, narrowly defined process of keeping a company running smoothly and efficiently." Ryan Moeller and Ken McAllister (2002) echoed Bushnell's opposition to "forcing [students] to adopt an employee mentality" in preparation for spending a life in "the mechanics and politics of document production".

Some of these differences are from lifestyle and habit, but some of them are an attempt to retain class distinctions through exclusionary language. For instance, the title of the Moeller/McAllister article is "Playing with Techne: A Propaedeutic for Technical Communication." The word "Propaedeutic" is so obscure that, in terms



of linguistic performatives, it functions as a warning to the uninitiated: keep out. It is a signifier that denotes that there is an in-group and an out-group and the out-group should not be reading here. Teaching rhetorical theory is sometimes the same: when we rely on a traditional framework that has developed within a context of exclusionary politics, the message may be more diffuse, but it is still there. A traditional rhetorical framework is one in which traditional students will succeed. Other students—multiethnic, multicultural and multinational—may find the framework mystifying and lose interest or fail.

Teaching technical communication gives us the possibility to discard traditional structures that limit communication. The goal of technical communication is for two (or more) minds to touch and for knowledge to flow between them. My principle is that we should teach whatever necessary to make these minds communicate. Then we will have more people who communicate and less who, as John Donne wrote, are "an island entire of itself."

## Re-Creating a PhD: From Technical to Professional Writing

Denise Tillery, *Oklahoma University*

*Keywords: turnover, inter-disciplinary, borders*

Oklahoma State University is home to one of the nation's oldest PhDs in Technical Writing. Over the last five years, however, turnover in the Technical Writing faculty and shifts in other programs in the department have led us to transform our PhD from the old focus on Technical Writing to a more inter-disciplinary focus on Rhetoric and Professional Writing. This transformation has forced us to navigate a space that crosses a number of borders in our diverse department. Borders between rhetoric, composition, linguistics, TESL, film, and traditional literary study have placed pressures on us as we developed a curriculum, acquired the approval of faculty, and are currently developing a strategy for publicizing and growing the program while meeting the needs of current students. This presentation will investigate a number of

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questions involved in re-shaping a program, including

- shaping a curriculum that adequately prepares students
- creating opportunities to foster PhD candidates' professional development
- identifying and capitalizing on our unique program strengths
- balancing between theoretical knowledge and applied skills for PhD candidates
- maintaining legitimacy in a traditional English department while still teaching applied skills
- providing opportunities for intra-disciplinary research

- creating PhD candidates who are excellent teachers, researchers, and practitioners

Although every department has its own set of challenges, and its own answers to these questions, I hope to emphasize that the process of program development is as important as the outcome. By sharing our experiences and learning from the experiences of others, I hope to generate

discussion about creative ways to reach out to faculty in other disciplines in English, thus re-shaping the local borders that constrain program development. This new and carefully theorized knowledge about program development should be of use to faculty who may have few local colleagues in technical communication as they create or re-create programs.

## Reviving/Reincorporating Scientific Communication, History, and the Liberal Arts

### History of Technical and Scientific Communication

Paul Dombrowski, *University of Central Florida*

*Keywords: history, electronic documentation, legitimate*

History is a crucial dimension of any legitimate academic field because it identifies it as having lasting interest and significance. Like a living organism, as a growing, evolving, coherent entity it progresses over time and advances to more sophisticated forms. History, after all, is scholarship and vice versa.

The joint fields of technical and scientific communication have matured to the point that greater emphasis on history seems warranted, useful, and a condition for further maturation. Therefore a specific, comprehensive course in the history of technical and scientific communication should be an integral component of our graduate programs. There is sufficient material already published to fill out such a course, and the possibility of much more as the interest in history grows through stimulation by these same courses. Many highly regarded topics have been published on, for example,

- seventeenth-century mining and metallurgy manuals,
- eighteenth-century sewing machine manuals,
- eighteenth and nineteenth science and pseudo-science,

- early twentieth-century science and pseudo-science,
- military training and operations manuals from the eighteenth century to the present,
- statement by leaders of the digital revolution such as V. Bush, T. Berners-Lee, and B. Joy addressed to technical and non-technical audiences.

Most obviously there also has been explosive growth in electronic documentation both to end-user and developers, as well as journal articles presenting technical information to mass technical audiences.

As a result, graduate students would have a clearer sense of their field, the meaning of their vocation, the multiplicity of applications and audiences we might address, and, above all, the enduring worth of our field, our talents, and ourselves despite the foibles of the economy or the fads of the day.

As a result, students feel more validated and empowered, and the same for faculty. At the same time, academic colleagues would perceive us more as legitimate scholars like themselves, and so strengthen our ties within the academic community.

## The Zen of TC: Transgressing Imagined Boundaries Between Liberal Arts and Technical Communication

Richard K. Mott, *New Mexico Tech*

*Keywords: internship programs, contemporary issues, opportunity*

The field of Technical Communication has long recognized the value of bringing the world of business and research into the technical communication classroom. Indeed, most technical communication programs not only require students to analyze case studies of real-world business enterprises, they also require students to participate in intensive internship programs. Certainly, technical communication students who engage in exercises either modeled after effective business and research practices or directly situated within these environments are better able to contribute to their employer's success once they graduate.

Although students benefit from these classroom excursions into the professional domain, students can and should be encouraged to delve more deeply into issues beyond the realm of business and research. Although some may be reluctant to do so, teachers who incorporate relevant contemporary issues into the technical communication classroom—for example, geopolitical, environmental, cultural, athletic, or artistic issues—may elicit a deeper, more personal commitment from their students. If students discover a contemporary issue for which they feel a deep passion and are given the opportunity to use that issue as the focus of their classroom assignment, they may well produce a more thoughtful, sophisticated project.

Many teachers of liberal arts have traditionally excelled at the Zen maxim, "Be here now." Recognizing the value of engaging students in discussions of current events, these liberal arts teachers negotiate and react to the complexity of contemporary society to teach students the skills of critical insight and analysis. Although many technical communication teachers already interact with contemporary media and contemporary issues, many more can further develop this act of engagement to cultivate more informed students.

Although discussions of contemporary issues fit neatly into technical communication classes on rhetoric and composition, these discussions may not seem to fit as neatly into classes on instruction manuals and web page design. Yet I believe all technical communication classes can benefit from analyses of real-world events. But should these engagements with current events be encouraged from a departmental perspective? Do technical communication teachers risk alienating or intimidating students who agree or disagree with societal or classroom viewpoints? And most important, how do teachers most effectively incorporate real-world issues, situations, and dilemmas into the technical communication classroom to develop students better aware of the ethical consequences of their professional activities?

## Reviving Technical Writing at a Liberal Arts College: Writing a "Non-Technical" Technical Writing Course Description

Heather Sehmel, *Richard Stockton College*

*Keywords: service course, program, service project*

Last year I taught a sophomore level technical writing service course at a liberal arts school where technical writing had not been taught for about five years. Unlike at the land-grant, engineering-based schools where I had previously taught, at Richard Stockton College, a small liberal arts school

in New Jersey, all students who choose to take technical writing take it as an elective. It is not required for any major, but all students are required to take four writing courses to graduate and may enroll in technical writing as one of these. This context differs from those that I have

previously taught technical writing: technical writing can serve an important role in the liberal arts tradition, but the traditional sophomore level technical writing service course may not be best suited for a liberal arts curriculum. Here are some of the important changes I think may make it a better fit:

- Change the course description for the class to make it more appropriate for a liberal arts education. The traditional technical writing course description of the course has not attracted students to the course.
- Make the class more general. Unlike a university where many students enrolled in a technical writing course are in "technical" majors or plan to be technical writers, here most students fit in neither category, and so (rightly or wrongly) found writing technical definitions and descriptions far removed from anything they can envision themselves doing in the future.
- Better advertise the class. The college offers sophomore level courses in writing for the sciences, technical writing, and workplace writing. Students and advisors do not seem to know that all of these

classes exist or of the differences among them.

These problems must be dealt with at a program level. I can modify the course within the boundaries of the current course description, but that will not help students registering for classes choose the best potential writing course for their needs. Therefore, I am asking my program to incorporate more of the liberal arts into the course titles and course descriptions to better appeal to (and serve) students in a liberal arts college. The course will have one or two new sophomore level iterations: as a technical/research writing course in which students complete a semester long service project, researching and writing a final report while focusing on writing, research, and mathematical skills, and/or as a technical writing/document design class where students focus on the document design and writing skills needed to produce items such as a resume, flyers, brochures, posters, and more.

My story highlights the special case of technical writing in the liberal arts tradition, where it is a critical component, but one that may need to differ from its traditional form at the more technical universities that prepare most technical writing teachers.

## Reconsidering the Tool/Concept Binary: Teaching, Research, and Curriculum Concerns

### Beyond the Borders of "English": Teaching Technology Tools in the Undergraduate Technical Communication Curriculum

Eva R. Brumberger, *Virginia Tech*

*Keywords: proficiency in technology, software skills, instructor perspectives*

The field of technical communication is in many ways inscribed by technology. As a result, technical communication programs not only must provide students with a foundation in the theory and practice of the field, but also must give students some level of proficiency in the technology tools they will need to put that knowledge into service in the workplace. The issue of how best to approach this task, particularly within undergraduate programs, continues to

plague teachers of technical communication. The ATTW listserv, for example, has recurring discussion threads focused on technology tools in the classroom; the most recent of these occurred in August 2003, focusing on what software tools would best meet student needs. A few months prior to that, in April 2003, another ATTW-I discussion thread focused specifically on the issue of teaching technology tools. Articles in Technical

Communication Quarterly also reflect an ongoing concern with the teaching of technology (see, for example, Bonita Selting's 2002 article). Certainly students need to learn software skills; the question is how best to teach them those skills. As Selting's research and the recent listserv discussions reveal, instructor perspectives vary widely though a common approach seems to be teaching software within a context of usage. That is, many of us teach software within the context of professional communication courses much as we teach grammar within the context of writing courses. However this approach glosses over a critical distinction: grammar is an integral part of English, a language that students have used for 16+ years; in contrast, software used by technical communicators is often an entirely new "language," one that lies outside the traditional borders of an English department. Thus when we provide software instruction only as part of other technical communication courses, we may be asking students to converse in a language with which they have little to no familiarity. If we dedicate enough of the course time to software, students may learn enough software "grammar" so that they can claim some proficiency, but at what cost to the "real" subject matter of the course? As one participant in the April listserv discussion concluded, theory and application easily take up the entire semester and teaching technology skills takes valuable time away from these topics (Foster). Equally importantly, does such an approach really meet student and programmatic needs? That is, do students leave the program feeling confident that they have the necessary technology skills to succeed in the workplace? The purpose of

## Working in the Liberal Arts/Technology Borderlands

Nancy Allen, *Eastern Michigan University*

*Keywords: false divide, workplace literacy, expertise*

One border that technical and professional communication (TPC) programs straddle constantly is that between the liberal arts and technology. We struggle to find ways to do justice to both as we prepare students to enter these professions. One common site

this paper is to present some student perspectives and to generate ideas and discussion about alternative approaches to teaching technology tools in the undergraduate technical communication curriculum.

To explore the questions raised before, I surveyed students in the undergraduate professional writing program at Virginia Tech during the fall semester of 2002. Five courses in the track were offered that semester, for a total of 51 respondents. Only students majoring or minoring in professional writing were permitted to complete the survey, and each student filled out the survey only once (many students were taking more than one professional writing course). The survey questions focused on the tools instruction students were receiving, students' level of confidence in their technology ability, and students' opinion regarding what approach to teaching technology tools would best serve their needs. As one might expect, some courses included more software instruction than others. Also not surprisingly, self-perceptions of respondents' software knowledge varied substantially. The strongest and most important finding, however, was that the overwhelming majority of students felt that the English Department should offer a distinct course on software tools as part of the professional writing program.

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exemplifying this struggle is our attempts to somehow teach concepts and strategies for effective, graceful writing, although we also help students develop a level of expertise with various writing technologies. Teachers wonder, "How can I teach writing if I also



have to teach computer software?" This question touches a nerve with TPC teachers.

We may argue theoretically that this is a false divide, that using computers is simply how writing is done now, but these responses don't solve the practical problems for instructors. They feel beset with seemingly opposing demands that exceed the number of hours available for working with students. They also worry that the levels and types of expertise expected by employers are rising. Although many students now come to our courses with some facility for using a word processing program, the professions we are preparing them to enter require much more. And as we learn from discussions with professionals, interviewers are checking the structure behind the surface of online documents by turning the Show/Hide button to Show.

Instructors question whether they are meeting these demands adequately. In fact, as technology changes rapidly around us, we are unsure of what is required to be literate in today's workplace. Should we be teaching Flash? XML? Do most other programs include a course in ROBOHELP? Does the rhetorical approach to planning writing projects result in effective documents in the workplace? The problems are two-fold: what expertise do students need to

enter the TPC professions? And can students become critical users of the tools if we don't actually devote class time to teaching them? Will they develop a liberal arts critical awareness of tools shaping their processes and products as well as a technological expertise of use? We wonder how others are coping with the combined demands of teaching on both sides of the liberal arts/technology border.

My colleague, Steve Benninghoff, and I recently conducted a survey research project to develop profiles of TPC programs around the country. One part of that project included questions on how the programs covered various software applications, whether they were taught formally, informally, or not at all. In this presentation I will briefly describe what we learned about tool coverage in 34 programs and some of the surprising points (for example, how little actual teaching of tools occurs in our programs). This outline of tool coverage will offer program directors and teachers a profile of comparison for their programs. I will then suggest that we use this profile as a point of departure to discuss how we might straddle this borderland between liberal arts and technology more effectively to encompass both sides of the divide, to maintain a liberal arts perspective while actively engaging with the tools of technology.

## **Do Technical Writers Need a Help Applications Course?**

Becky Jo McShane, *Weber State University*

*Keywords: PTW, theory-based education, job market*

Weber State University is in the process of developing a major in Professional & Technical Writing (PTW). Currently, students enroll as English majors with an Emphasis in PTW, that consists of four courses in PTW that students take in addition to other English courses. The minor consists of the same PTW courses plus two interdisciplinary classes, that are determined in consultation with an advisor. The problem is that students who wish to do PTW must take the same number of literature classes as other English majors. Often they do not receive instruction in document design, other than a cursory treatment in the service course. A full major would better prepare students to enter the

job market without losing connections to critical theory and humanistic approaches to texts—connections they receive in English Department courses.

Our major is being developed to provide students with a theory-based education in writing, editing, designing, and communicating for their future jobs in the technical world. In addition, we have chosen to educate students in the skills increasingly asked for in job ads. To develop our major we hope to add courses in Document Design, Publications Management, Information Architecture, Visual Rhetoric, International Communication, and Help Applications. Visual rhetoric is emerging as an important qualification for many technical

communication jobs, as employers request writers who can do more than just write: they must be able to design websites, create graphics, manipulate images, and so on. And as Tom Huckin compellingly argued at CPTSC 2002, globalization is upon us and we must teach international communication in a dedicated manner rather than merely dropping in a chapter or two about international concerns.

As for help applications, employers increasingly advertise for technical writers who know and are able to use ROBOHELP, or some other authoring tool. Recently, I searched the Society for Technical Communication's job database for technical writing jobs around the world. Of the first 25 descriptions I read, 5 required experience with ROBOHELP. Moreover, students repeatedly request a course on ROBOHELP because they have seen it advertised in jobs but cannot afford to attend the training themselves. Before I can teach future

technical writers about help applications I need to be taught myself. Therefore I proposed and was granted money to attend ROBOHELP's "HTML-based Help" training course this year. After I receive the training I plan to focus an existing course, "Issues in Professional and Technical Writing," on help applications. I plan to track the PTW students who take the class by monitoring how many go on to use the skills/knowledge on the job and soliciting feedback from these students on course effectiveness.

However I've received some opposition from fellow faculty members who believe that I should teach help apps in a course on indexing or computer documentation. I'm troubled by both of these solutions and believe that pedagogically and theoretically students do need an entire course on help applications. But how do I convince the PTW committee that this course is as—if not more—important than Indexing and Computer Documentation?

## The PageMaker Guy

Tracy Bridgeford, *University of Nebraska at Omaha*

*Keywords: practitioners, PAGEMAKER Guy, engagement*

Technical communication programs at most levels are designed to prepare students to become practitioners. Despite this aim, most of us probably cringe when we hear the term practitioner not only because our history depicts a plethora of hard-won battles for scholarly approval but also because, for most of us, this battle is far from over.

This battle continues because the technical communication scholar is often the lone expert in English departments. And because technical communication involves the knowledge of technology, expertise is associated with anything practical. I've come to think about this battle in terms of what my colleague Allan Heaps used to call the PAGEMAKER Guy. In practical terms, the PAGEMAKER Guy is the person in an organization or a group who "knows" how to use technology, who can fix other people's technological messes, or who sacrifices valuable research time helping other people use technology. The PAGEMAKER Guy is a phenomenon for which a person is anointed. Those of us in "PAGEMAKER Guy"

situations often resent this role because it subsumes our identity to the extent that we fear our colleagues might ignore the depth of knowledge necessary for this role as well as our equally deserved scholarly accomplishments.

To combat this battle and image of the PAGEMAKER Guy, we have done everything we can to look like, act like, and be perceived as scholars within English Studies, and successfully so. Despite this success, however, we continue to fight terminology such as practitioner because practitioner is associated with the term practice, that is associated with the term practical, that, according to the American Heritage Dictionary (1992), means "rather than theory" (p. 1421).

To suggest that practical, or any of its allied terms, does not involve theoretical cognition is to do it a disservice, as this community knows well. To combat this perspective, we have adopted specific terminology in an effort to change how we are perceived and how our work is defined by others: humanistic, genre knowledge and

construction, enculturation, symbolic-analytic, praxis, activity networks, and so on, all of which have worked to some extent to build a case against any pejorative opinions.

Despite the need to change our image, I think we need to give up this battle not through concession but through engagement. I agree with Deborah Bosley in *Reshaping Technical Communication* that we need to think of ourselves as practitioners without apology and demonstrate the value of practice at every opportunity.

As a technical communication professor in a literature-dominated department, I rarely talk to my literature colleagues about my specific research not because I think they don't support me, but because I anticipate a lengthy explanation about the value of that research. As the self-appointed

PAGEMAKER guy, I've inscribed a preconceived notion about my colleagues' perspectives about my identity and my research based on exhaustive experience, not localized conditions. I believe that, as Deborah Bosley suggests, academics often set up barriers to recognition and that this battle must end with our generation so that the next generations of technical communication scholars don't feel that they must continue this battle.

I suggest that as instructors/practitioners we should not be afraid of being the PAGEMAKER Guy or of teaching students to be PAGEMAKER Guys. But in doing so, we need to teach them how to talk about their work, their knowledge, and their practice as participation within a community. We need to use a community of practice model for designing programs that emphasize technological knowledge and skills.

## Program Assessment: Coordinating Across Institutional Borders

### Why should we be Exploring Accountability?

Gerald Savage, *Illinois State University*

*Keywords: strengths and weaknesses, external evaluation, accountability*

In my recent and first-experience as a program evaluator, I found myself standing on several different borders in an intense two days of conversations and observations. The other evaluator and I come from quite different programs ourselves, and the program we evaluated is different in yet other ways from the programs in which the two evaluators work. Therefore, I first had to put aside some more or less parochial preconceptions about program design and philosophy, rooted in the world of my department and local community. But those were only the first borders I stepped over. I also had to think about the constraints and perspectives we encountered in meetings with administrators from several levels of the university administration faced with the kind of budget concerns most of our universities are reckoning with these days, as well as a university community and mission that differed from those I had previously experienced. Later, we stepped into the domains of students, and then of alumni

practitioners and adjunct faculty who spend most of their time working in industry.

This experience showed me the positive aspects of having to account for our programs to people who probably know nothing about what we do, but who are in positions of power regarding our future and the future of our programs. As an evaluator, I had to be prepared not simply to name, but to make arguments for, strengths as well as weaknesses. I had to think about the possibility of having to play the role of advocate as well critic for the program in discussions with university administrators. I was also there as a representative of the profession in my discussions with university administrators, students, faculty, alumni, and the program director. Moreover, we had to make recommendations immediately that might have consequences for the next five to seven years.

The experience has made me realize that we probably need to think much more than we have in the past in terms of assessment, external evaluation, and accountability. We are hearing ever more

frequently the concerns of administrators, regents, legislators, and departments of education for greater accountability by universities—concerns that will be passed down the administrative levels to program directors and teachers. These concerns may be a blessing in disguise, an opportunity to tell the public who we are and why we are important. In my presentation I will focus particularly upon the challenges

and advantages of continual assessment, formal program evaluation, and accountability to groups beyond our programs and departments. I do not come with conclusions about these challenges but with an interest in beginning a conversation that I think CPTSC should be taking the lead in extending more vigorously than ever before.

## **A Behavioral Framework for Assessing Graduate Technical Communication Programs**

Nancy Coppola, *New Jersey Institute of Technology*  
Norbert Elliot, *New Jersey Institute of Technology*

*Keywords: educational outcomes, composition studies, empirical models*

The assessment of educational outcomes is part of the national agenda. Demanded by regional accrediting agencies (the New England Association of Schools and Colleges, the Middle States Commission on Higher Education, the North Central Association of Colleges and Schools, the Southern Association of Colleges and Schools, and the Western Association of Schools and Colleges) and by professional associations (Accreditation Board for Engineering and Technology, Association to Advance Collegiate Schools of Business, and American Public Health Association) outcomes assessment is increasingly part of the daily lives of university administrators and of program developers.

The field of composition studies has long been involved in assessment. The Conference on College Composition and Communication's 1995 set of policy guidelines—"Writing Assessment: A Position Statement"—remains a landmark in its candid address of all assessment shareholders: students, faculty, administrators and higher education governing boards, and legislators. Within the field of professional and technical communication, the Council for Programs in Scientific and Technical Communication has provided guidelines for self-study, and previous conferences (e.g., the 27th Annual Conference of 2002) have devoted sessions to processes and problems in program assessment.

Behavioral science, with its emphasis on association, reliability, and validity provides a promising set of models to enhance further work in scientific and technical communication. Our proposed model is based on the five independent variables that, when constructed validly and measured reliably, may be associated with effective programs in technical and scientific communication: (1) institutional context and commitment (as measured by full time equivalency calculations for instruction and by institutional funding for the program); (2) curriculum and instruction as measured by program benchmarking; (3) student support and satisfaction as measured by traditional course evaluations and satisfaction surveys; (4) faculty support and satisfaction as measured by faculty indices; and (5) outcomes assessment as measured by controlled readings of student work captured in a digital portfolios.

If used as an archetypal set of predictor variables of program effectiveness, the proposed model will allow program developers to expand beyond context-dependent assessment episodes. Program developers will be able to develop empirical models of program support and impact thus beginning the kind of cross-institutional comparisons that will allow our field to advance by reporting and using what it measures.

## Intertwining Structures of Assessment and Support Assessing Programs: Advancing the Profession

Tyanna K. Herrington, *Georgia Institute of Technology*

*Keywords: external assessor, program evaluation, theoretical bases*

In my recent experience as an external assessor invited to participate in San Francisco State University's Technical Communication Program assessment, I felt that the process taught me more than I was able to provide in return.

I was fortunate to meet with administrators across the university who exhibited a genuine interest in its students, faculty, its programs, and their effective development. The program assessment process at San Francisco State is extensive, beginning with a long-term self-assessment, coordinated between university and program administrators, extending to the external assessment I participated in, that called on outsiders to interview students, alumni, faculty, program directors, college, and university administrators to gather information useful for determining which directions to take in future funding and program development.

In the process of attempting to understand the needs and desires of the multiple kinds of individuals affected by my efforts to provide a knowledgeable, informed, and even assessment, I was pleasantly surprised to find that the process provided avenues for interesting theoretical discussion of the technical communication field, its multiple, varying faces and roles within the diverse range of institutions in

which we research and teach, while drawing ourselves together under the umbrella of the profession. In my discussions and interviews with deans whose individual research interests ranged from science to literature, I found myself acting as an ambassador for the profession within my role as an assessor whose duty was program evaluation. The process of articulating explanations and descriptions of what our field is, and the many different kinds of theoretical bases from which it grows, encompasses, and interacts, allowed me not only to help administrators consider the significance of programs in our profession to their institution's development, but it allowed me to reconsider how I could make a case for further integration of technical communication into my institution's development.

For CPTSC 2003, I propose to discuss my experiences with the assessment process, as previously described, and suggest that as we use external evaluators to convincingly support efforts in our programs, the assessment and evaluation process can also be used to encourage theoretical exchanges that provide interesting perspectives on the field as a whole, both for the assessors and the assessed, as part of the evaluation process.

## Thank You, Thank You! Or: How External Reviewers Help Out

Lu Rehling, *San Francisco State University*

*Keywords: course evaluations, portfolio reviews, competence, savvy, communication skills*

Talk about reaching beyond borders: Conversations about assessment for technical communication programs often focus on evaluating features internally, through means such as course evaluations and portfolio reviews (see, for one such example, O'Rourke). For the Technical & Professional Writing Program that I direct at San Francisco State University, though, a thorough assessment by external reviewers is required every five to seven years. I am

forced to bring in respected colleagues from outside our university, show them who we are (warts & all), and grant them office space to write whatever they want about us—words that go directly from their workstation to my provost, dean, and a cast of other high muckety-mucks in our university administration.

So why the thank you's? Because reaching out for external review feedback in this way is one of the most valuable tools for



improving our program, motivating faculty, and encouraging support for our program that I have encountered. I have now experienced two such external reviews and have found that even in a somewhat adversarial (or, at best, benignly neglectful) administrative environment that the exercise can have important effects on program resources; and, even more importantly, I have learned that in a more fluid and open administrative environment an external review visit and report can transform attitudes toward our discipline, with corresponding status and power rewards, based on new understandings of our legitimacy and of the nature of students and studies.

Of course an external review requires work, including a thorough, up-front internal assessment of the kind familiar to most progressive and concerned program heads. External review also involves risks, especially of exposing hard-to-solve problems and committing time to the effort with no assurance of commensurate payback. Yet such risks are worth taking, if the external review process has these hallmarks of value: subsidizing support from

college and university administration, along with a meeting and discussion framework that requires higher levels to take review outcomes seriously; clear goals and focus; and, most importantly, reviewers chosen in consultation with the program head to ensure their competence, familiarity with disciplinary trends and best practices, collegial objectivity, and politically/bureaucratically savvy communication skills.

In the case of our most recent external review, reviewers taught the administration much: warding off challenges to our program integrity and how we deliver our curriculum, encouraging more responsible faculty staffing and support policies, and persuasively identifying guidelines for improvement and possible expansion. The external reviewers cordially and thoughtfully breached the protective and somewhat complacent "how we do things here" borders that inscribe our program within our institution, as such borders perhaps do for many other similar programs in the field. Again, I can only say thank you and recommend the process to others.

## Working as the Sole Technical Communication Member: Programmatic Challenges, Opportunities, Successes

### Teaching as a Conduit: An Interrogation of the Educative Function of the Untenured, Sole Professional Writing Faculty Member

Amy C. Kimme Hea, *University of Arizona*

*Keywords: professional writing, integration, teacher inside and outside the classroom*

With the growth of professional writing graduate programs and the subsequent rise in the number of faculty positions for those trained as teachers and researchers of professional writing, more traditional programs in rhetoric, literature, composition, and English education are integrating professional writing into their programs. As programs incorporate such a focus and hire faculty with this research and teaching interest, those same programs must consider several factors in their integration: the climate for professional writing in the larger institutional context, the ways that a faculty person with this expertise impacts the program and develops research within that program, and the complex role of

building a focus on professional writing with only one junior faculty member in this area of expertise. As a junior faculty member recently hired in professional writing, I face constraints between my area of expertise and limitations of my untenured status.

As the sole faculty member in professional writing, one must find reasonable means for integrating research, teaching, and service. This integration means understanding the institutional context, balancing the research-teaching-service commitments for tenure, and creating a supportive community for professional writing, teaching and scholarship. Based upon my institutional context, one much different from my

graduate training, I have discovered that each moment as a professional writing faculty member is an educative moment. That is, from program and department meetings to casual hallway conversations, I am responsible for raising awareness of professional writing. I have discovered that an unstated part of my job is to inform my colleagues in what it means to be a professional writing scholar and teacher.

Rather than resisting (or resenting) my role as the sole professional writing faculty member at my university, I have learned that my position—one of the most visible of the research, teaching, and service triptych—can be a vehicle to educate my colleagues about matters related to professional writing. For example, I have actively engaged in client-based work and earned a small grant to host a student-faculty-community member mixer. Through this mixer, I was able to promote undergraduate professional writing teaching

and win the support of others in, across, and outside campus. Equally significant are graduate-level courses where I have recruited students to develop textbook evaluations for distribution to other professional writing instructors. In addition, graduate students developed and hosted workshops on teaching professional writing, created a list of potential non-English department courses for an undergraduate emphasis in professional writing, initiated a listserv for instructors, and researched teaching goals to create a mission for our business and technical writing service courses. Thus, my position is that to manage the unique challenges that come with being the sole professional writing instructor, we must take on the role of educator both inside and outside of the classroom. Only in this way can we effectively make space for our work and effectively function from the border location within traditional English programs.

## **So You're the "Writing Program": Three Keys to Understanding the Values and Cultures of Small School Contexts**

Kate Latterell, *Penn State Altoona*

*Keywords: interdisciplinarity, writing and communication, small schools*

The small school context has been a relatively unexamined context for technical and professional communication program development. Although graduate program development has held a majority of attention in recent national forums, growth in graduate programs is a consequence of demand in the job market among mostly small "teaching" schools. Thus, the field must consider how well we are socializing new PhDs into the values and the real work of institutions where they will likely find employment. Toward this end, this position statement outlines three mediating forces to understanding the culture and values of small school contexts: (1) interdisciplinarity and flexibility are lived dynamics of small schools, (2) the campus-wide privileging of writing and communication skills presents on-going opportunities for curricular initiatives and program development, and (3) compression of decision-making structures leads to more involvement of and with administrators and units across campus.

Why should this context and its implications matter to those situated in larger, more established programs? The answer is simple: Because this is the context for which they are preparing the majority of their students to find employment. In 2000 the MLA Committee on Professional Employment published a final report that concluded that "In the United States over 90% of English programs and most likely between one-half and two-thirds of the total number of professorial-rank appointments are located outside doctorate-granting research institutions." In a 1996 study, Jerry Gaff and Leo Lambert put it even more directly: "Fewer than 10 % of PhDs end up in...research institutions." What these statistics make clear is that we cannot afford to leave small schools off our collective radar. One potentially harmful consequence of ignoring the contexts of small schools is that it will lead to poor preparation of graduate students for the values, missions, and conceptions of faculty roles and

responsibilities at these institutions. As Gaff and Lambert note,

Too often the graduate faculties responsible for preparing the future professoriate are unaware of the values of different types of academic institutions or, occasionally, are even hostile to the places their students seek jobs. Doctoral education is a powerful enculturation process, but is sometimes disconnected from the realities of jobs available to new faculty.

## Who Are You, and What Is It You Do Again?

Carol Ferguson Nardone, *Sam Houston State*

*Keywords: the "other", building credible programs, mentoring relationships*

Technical writing faculty who work in solo situations are often seen as the "other" in their home departments, whether we are housed with literature, business, or engineering faculty. We are thus inscribed in a unique border location, and consequently are further inscribed in a peripheral location within the greater technical writing academy. Our departments look little like the departments that trained us and our abilities to establish and maintain reasonable standards of program identity are necessarily compromised because of that fact. The border location, then, becomes multi-layered. These border locations bring unique perspectives as we try to develop curricula, increase enrollments, and compete for funding sources within our universities and across the academy. How does the lack of peers within a department affect how we define our work and ourselves within the greater academy?

In departmental struggles, we are often left outside of the loop. For example, many departmental colleagues do not know what we do and are often driven by myths that inform their understanding of what we do, reducing our discipline to teaching students how to write memos, business letters, and reports. In other words, many colleagues allow genres to identify our professional identities. Likely, those same colleagues would resist any of their genres (e.g., the essay, book review, or critical analysis) speaking for them in the same way.

The purpose, then, of this position statement is to raise awareness about the opportunities and challenges of program development at small schools.

Pragmatically, these colleagues do not understand how to evaluate our work and yet institutional matrices insist on them sitting in judgment.

On the more personal border, our previous experiences give us no real models because the locations where many of us currently dwell look nothing like the programs that trained us. We are advised to build a sense of camaraderie and collegiality with peers from outside of our departments and universities. This advice is not to be construed as a negative; in fact, it is quite the opposite. But what this does is further inscribe border locations away from the traditional disciplines. This, in turn, places a greater emphasis on faculty joining larger technical communication conversations, but we are necessarily in a border location there as well. Limited travel funding and high teaching loads make professional development issues and research/publication efforts more difficult for small program faculty than for those in the larger, established programs.

Like other participants in this panel, I find myself asking many important questions related to building credible programs, gaining access to funding, and developing mentoring relationships. For those of us working at small technical communication programs, especially for those of us who are the sole faculty member in our area of specialization, finding answers is difficult. These questions range from programmatic identity to personal

identity, from questions regarding the administration of an undergraduate technical communication program to strategies regarding how to keep from feeling as though we are outsiders in our universities and our discipline. Thus, this

## Going Wireless at the Border

Teena A. M. Carnegie, *Eastern Washington University*

*Keywords: infrastructure, technological accommodation, effective funding*

Those who find themselves the solo technical writing faculty in their department often have to deal with infrastructural issues as well as curricular and programmatic concerns. Infrastructure involves creating learning environments conducive to building skills students need to be qualified technical communicators, and such learning environments often require access to technology.

When I was hired for my first tenure-track position as the solo technical writing faculty in an English department at a research university, my responsibilities involved overseeing and developing the professional writing curriculum. To fulfill this responsibility, I began by integrating technology into the technical writing classroom. Because the university did not have sufficient computer labs to accommodate all sections of this course, I sought and acquired the resources to build a wireless lab. The process of gaining the resources and setting up the lab demonstrated both the difficulties and the triumphs that solo faculty face as they take on infrastructural concerns. On one level, the process revealed how isolated and marginal solo faculty can be within their department. But on another level, the process showed the importance of building connections and collaborations outside the department to achieve success with infrastructural projects.

One of the first challenges many solo faculty face is the lack of awareness and knowledge regarding instructional technology and pedagogical issues that govern the design of learning spaces in

paper argues for increased attention to issues of the small program faculty so that we can use these inherent border locations and discover the best methods of turning challenges into advantages.

English departments. Many traditional English faculty members have little experience in this area and are unfamiliar with the uses of instructional technology or the design of computer labs. As a result, they offer little support in terms of acquiring resources and designing classroom space. Funding applications can prove particularly challenging if the solo faculty is unable to make necessary connections and negotiate political minefields that accompany competitive funding opportunities. Locating viable space for a lab is equally problematic, especially if the department is unwilling to use its own space.

To succeed, solo faculty must turn to external sources including colleagues within their discipline but outside their institution, administrators outside of their department and/or college, and campus IT specialists. Colleagues within the discipline, but outside the institution, can offer valuable models and advice for creating effective funding applications and for avoiding hazardous political situations.

Administrators outside of the department can provide knowledge about instructional technology and can help with building support for the project and locating adequate space. IT specialists can provide essential information about technology implementation and help make connections with others on campus. Although solo faculty can indeed succeed at developing infrastructure, they need to be aware of their position at the "border location" and need to exploit that position in ways that will help achieve their objectives.

## Sustaining Online Technical Communication Programs

### Going the Distance: Online Teachers' Perspectives on the Usability and Sustainability of Teaching Writing Online

Karla Saari Kitalong, *University of Central Florida*

*Keywords: technology skills, aptitudes, interests, online ethos*

A review of the distance education literature reveals a couple of gaps that should interest technical communication program administrators.

First, distance education research tends to focus on student experiences in the online classroom because students are the bread-and-butter of distance learning programs. Consequently an abundance of research has been done on educational equity, student learning, and retention rates for online learners. Although student experiences with online education are useful and interesting, so are the experiences of online teachers, but we don't hear much about the teacher perspective.

Second, studies of online education tend to focus on the content areas. The particular demands associated with teaching writing in online environments are seldom considered, although research and experience demonstrate that teaching writing is a specialized and labor-intensive activity quite different from teaching in the content areas.

What do teachers of writing in online environments bring with them from their face-to-face teaching practices? What do they need to keep teaching on line—to want to teach on line—for the long haul? In other words, what makes a distance education environment usable and ultimately sustainable for teachers of writing? And what can or should be done at the technical communication program level to ensure that the discipline's online educators find their teaching environments to be usable?

To begin to address these questions, I interviewed a dozen teachers from different institutions in the United States and Canada concerning their online teaching experiences. All were experienced teachers. All but one had previously taught on line.

These interviews reiterate the findings of many student-oriented studies but add the teachers' perspective. A writing teacher's long-term commitment to teaching on line is

more likely when the following attributes and conditions are present.

#### **Hard Technology Skills**

Teachers need to be competent and efficient users of technology; they need to know how to use specific course management tools; how to edit and manage their files; how to use network technologies such as FTP; how to search the Web; how to develop Web pages.

#### **Technological Aptitudes and Interests**

Different from hard skills, these include a knack for and interest in learning new technologies and teaching others how to use technologies, as well as a general problem-solving mentality.

#### **Independence**

Online teachers face various challenges from technological to logistical to pedagogical; ideally, they should be able to deal with most such challenges on their own, and should have the capacity to feel successful in the absence of external affirmation.

#### **Credible, Coherent, and Manageable Online Ethos**

Teachers have many ways of projecting credibility in face-to-face teaching situations; this credibility must be developed and nurtured on line, as well. A seldom-acknowledged aspect of online ethos is that teachers need somehow to protect themselves from burnout by projecting a "myth of presence"—giving the impression that a real person is there. This entails the ability to do just enough work.

#### **Adequate Institutional Support**

Most institutions have high expectations concerning teaching. Teachers would prefer that these high expectations be



accompanied by commensurate support and affirmation. Some institutions recognize both the challenges and the rewards of online teaching; in other institutions, online experiences and needs, both teachers' and students', are misunderstood. For example, one teacher reported that academic advisors were recommending online classes for students with substandard reading ability, mistakenly believing that online classes were "easier." Additionally, if

technical support is available to teachers but not to students, then teachers are burdened with supporting student use of technology, a role that is extrinsic to the educational process.

In short, both student and teacher perspectives should be considered in planning, implementation, and support if we want to develop distance education programs that will "go the distance."

## Heuristics for Sustainable Distance Education

Stuart Selber, *Penn State University*

*Keywords: distance education, literacy and technology, pedagogical complexity*

In his review of the literature, Donald Ely discusses eight conditions for technological change that can support innovation in educational settings. These conditions, that were first directed toward library contexts and then studied in a variety of education-related contexts, encapsulate the majority of sustainability issues associated with distance education.

The first condition is that there must be a significant amount of dissatisfaction with the status quo. Teachers, program administrators, department heads, and upper administrators should all believe that distance education initiatives can help a program construct better educational alternatives or solve educational problems.

The second condition is that those centrally involved in the change process itself must have the requisite knowledge and skills needed to get the job done. This means that English departments and upper administrators should be prepared to hire, retain, and value teachers whose primary scholarly work resides at the nexus of literacy and technology. It also means that professional development opportunities should be made available to everyone involved in the process of creating distance education initiatives.

The third condition is that sufficient resources must be made available to support the change initiatives. Departments and institutions should provide easy access to robust technological environments that have been explicitly designed to support distance education initiatives. What other types of resources are needed?

The fourth condition is that sufficient time must be made available for exploration and innovation. This means that everyone should account for the fact that distance education adds real layers of complexity to pedagogical projects.

The fifth condition is that incentives must exist for the participants involved in change initiatives. Departments and institutions should recognize the fact that distance education work typically contains a measure of professional risk for teachers that is often unforeseen.

The sixth condition is that broad-based participation must be expected and encouraged. Departments and institutions should hold open forums in which students and teachers who might be affected by the distance education initiatives have genuine opportunities to voice their opinions and perspectives, ask questions, and obtain information about the administrative and instructional aspects of any new policies, procedures, or technological developments.

The seventh condition is that there must be a high level of commitment on the part of key stakeholders. Department heads and upper administrators should recognize the fact that successful distance education programs require significant ongoing expenditures.

The eighth condition is that strong leadership must be evident. Department heads and upper administrators should find ways to clearly and continuously communicate their support for distance education initiatives, and certain faculty

members should be asked to take on more responsibility.

These eight conditions are not totally exhaustive, but programs that achieve many of them will probably experience a high degree of sustained success.

Dissatisfaction with the status quo, knowledge and skills, resources, time, rewards and incentives, participation, commitment, and leadership—these are not sustainability issues that can be safely overlooked or rationalized away. Rather such departmental and institutional support structures will be crucial in all phases of any approach that attempts to invent or (re)imagine distance education initiatives.

As Ely points out, the eight conditions also function as a heuristic that can be applied in different ways at various stages of a project. In initial stages, the conditions could be phrased as questions that can help a program size up its support situation. Is there a significant amount of dissatisfaction with the status quo? Does the faculty possess the requisite competencies? Are sufficient resources available? After

conducting a thorough needs assessment, a program would be in a better position to determine a judicious course of action, that could include inaction until the proper support structures have been put into place. In development stages, the conditions could serve as a checklist to help ensure a favorable outcome. If support structures atrophy over the duration of a project, its chances of success are sure to diminish appreciably. Thus as teachers become engrossed in project work they must continue to monitor their levels of institutional and departmental support. Finally once a distance education project has been completed the conditions could be used to help teachers assess the settings of implementation. Change does not magically take care of itself, nor does a reformed curriculum automatically have positive effects. Although teachers can do much to encourage change, many will need a tremendous amount of support to be productive in actual distance education situations.

## Crossing Institutional and Programmatic Identity Boundaries: The Possibilities of an Online Graduate Consortium

Kelli Cargile Cook, *Utah State University*

*Keywords: institutional and programmatic identities, online graduate consortium, technological media*

In the introduction to *Online Education: Global Questions, Local Answers*, Keith Grant-Davie and I identify a variety of instructional situations found in higher education (see Table 1); and we examine how students are defined by the situations in which they learn. We note the fluidity of these situations (how, at different points in a semester, students and instructors may find themselves in differing instructional

situations) and discuss how this fluidity blurs the distinctions between traditional onsite students and their online counterparts. Developing this matrix helped us to articulate similarities we find in online and onsite students; but, to our surprise, it also caused us to reconsider our assumptions about distinctions in institutional and programmatic identities, commonly defined by faculty and disciplinary specializations.

**Table 1: Instructional Situations**

Class medium	Student location	Instructor location
1. Face-to-face	A. On-campus classroom	A. On-campus classroom
2. Online interaction through Internet	B. Off-campus classroom	B. Off-campus classroom
3. Other media (e.g., correspondence, telephone, interactive TV)	C. Elsewhere (work, home, field trip destination, Internet café, etc.)	C. Elsewhere (work, home, conference, field trip destination, etc.)

For example, online education has created opportunities for remote professors to teach remote students, resulting in instructional situations in which neither instructors nor students are located at the course's institutional (geographic) home. In these cases, technological media allow classes at one institution to include students at another institution and to be taught by an instructor at a third.

Considering this new instructional situation has generated many questions: Should institutional boundaries prevent online students from learning from the best professors available? What is the effect of employing remote professors on a program's identity, and how do remote or distant professors fit into a faculty's programmatic and pedagogical profile? Furthermore, how important are these

institutional and programmatic identities for graduate student education? Shouldn't students have the opportunity to take courses from the best in their field, wherever they are geographically located? What are the possibilities for an online graduate consortium in scientific, technical, and professional communication?

Such questions have led us to reconsider our assumptions about programmatic and institutional identity and to begin to think seriously about the positive and negative implications of a consortium, a concept suggested by several authors in our edited collection. With this year's CPTSC attendees, I would like to discuss these questions as well as other questions related to the implications and possibilities of an online graduate consortium.

## **The Question of Parity in Online vs. Face-to Face Technical Continuous Programs**

Kevin LaGrandeur, *New York Institute of Technology*

*Keywords: instruction, visual media, online access*

Many schools like the one at which I teach are striving to make their Technical Communication programs as accessible and up-to-date as possible for students. As part of these aims, many programs have begun offering their classes online, reasoning that not only does this mode of instruction enable students from a wider region and demography to enroll in their program, but it also encourages use of the more advanced electronic technology in use at the professional level. In practice, though, online delivery of certain segments of the curriculum for Technical Communication programs presents difficulties. The big question is one of parity of instruction: Is it really possible to cover the same materials and engage the same assignments with equal effectiveness in both realms?

The most problematic classes to deliver online are those that are focused on group work and/or visual media instruction, as opposed to writing. For better or worse, the Internet through which we conduct our online classes is still mainly a written medium. Visual media such as video is unwieldy to use and of poor quality over the Internet, unless one has broadband access.

Even then, the video quality is often still poor: the picture is generally in a small, thumbnail-sized area, and the picture and audio quality can be poor depending on how the video was produced. (I know, as I have produced videos, using Real producer, for use in our program.)

Compounding these problems are the facts that many of students still have limited access to the Internet because they cannot afford it, and even more are still novices with computers and the Internet, knowing only basics about surfing the Web, and doing word processing and email. In my experience, this typically makes it difficult for about half of the students in my online classes to grapple with the necessary technology, let alone their homework.

The majority of students also lack broadband access. Although broadband connections have become more common, only 16% of all American households had them, as of March, 2003, according to a report done by the Pew Internet Project (see note). This means that, at schools like ours—wired with high-speed access, but where only a small portion of students live on campus—the majority of students, who

study at home, will have a difficult time using media like video, or downloading and uploading the large files that often make up multimedia files. This broadband bottleneck also makes teaching online Web design difficult. In our face-to-face classes, because of economic considerations, we often use free, Web-resident design tools to teach introductory Web building. Although we could conceivably teach Web design cheaply online using the same software, students have had trouble using the Web-based tools, like Geocities' PAGEBUILDER, because without broadband these tools take a long time to load from their source-server.

To give some specific examples of the challenges I've been discussing, we can look at my institution's program. By our departmental standards, the teachers of basic Technical Writing are supposed to include instruction and practicum in oral presentation and in creation, via group work, of a technically oriented website. But this presents some problems for the online teacher: our school-approved courseware for teaching online doesn't provide for group collaboration in Web design. There are also fairly large logistical problems in trying to arrange for students to give their oral reports to a real audience, because our courseware doesn't provide for video, nor are students required by school policy to be online at any particular time. At my institution we have explored alternatives such as having students send videotaped versions of their speeches to the teacher (with PowerPoint presentations on diskette or emailed). But videotapes can be repeatedly redone, and the student's audience will not likely be a group of relative strangers as it will be in the live classroom. Thus a home-recorded oral presentation cannot really be said to be of equivalent difficulty or professional practice-value as having to stand up in front of a class and give the same presentation.

Likewise in our course on Web design, students normally work in groups, looking at

one another's sites, giving suggestions, about the sites' elements. This can, of course, be done by posting websites while they are in progress, and using a chat program to do gain group feedback. But, in comparison with a face-to-face class, this process is ponderous: for instance, saying "move this here" is much easier and more concise in person than describing the same idea in print. And my experience with using chat in instructional contexts is that it encourages overly brief, vague communication and, in the worst case, it degenerates into a quip-fest. In general the give and take of instruction in an online version of a class is more laborious—as it has to be given most people's typing speed—; and the students sometimes complain of the lack of personal contact with the instructor.

In sum, I wonder: can we really create parity, or do we have to make unsatisfactory compromises in such situations? It certainly seems as though, for now at least, classes of the two realms are separate but not equal; too I often find myself having to water down or substitute assignments to conduct online versions of requisite face-to-face classes. So I worry that the experiences of students in the two different types of classes are not equivalent. Ultimately, I don't think this situation will change until two things happen: first, bandwidth and its general availability have to get much broader; this will enable the second condition to evolve, which is that online video technology will be able to improve to the point where meaningful face-to-face conferencing can take place between groups of students and teachers.

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## From Peripheral to Central: Technology, Teaching, and Learning

### Technical and Scientific Communication: Research on the Internet-Expanding Wealth or Chaos

Elizabeth R. Turpin, *Ferris State University*

*Keywords: research and archival courses, macroethics, public policy, propriety*

Programs in Technical and Scientific Communication have long considered ethics and research for source material important parts of their educational efforts. However, in many cases the emphasis has been based more on the application of principles than dealing with pragmatic experiences students are likely to encounter once they leave academia. Seeking information on the Internet can be enormously fruitful or lead to ineffective research resulting in significant errors. Joining forces with other programs in ethics and legal/public policy areas and in information retrieval and archival can help inscribe useful borders on our programs.

Recent headline events have brought into sharp focus major ethical transgressions by large companies and public entities as well as significant challenges to and legal changes in intellectual ownership and online copyright issues. Because writers/communicators now carry legal responsibility for what they write, on paper or online, it would be useful to students in Technical and Scientific Communication Programs to have instruction in communication law and explore its many applications online.

Providing students with access to a study of macroethics and public policy issues would also strengthen global awareness. We can gain from liaison with academic business and public policy programs, but a massive amount of significant data and information can also be accessed online from governmental databases and Congressional records that relate to these areas. These have expanded significantly in recent decades, but the Library of Congress has likewise been busily effecting electronic transcription and availability. In addition the Library offers a "Collaborative Digital Reference Service" that gives researchers trained professional assistance anytime and anywhere and has new technologies that help search for the

best answers from millions of sources all over the world.

Linking our Technical and Scientific Communication Programs to information research and archival courses would not only teach students how to access this kind of information opportunity but would both enlarge and reinforce our goals for effectively educating students. In the field of information research, technical and scientific communicators are expected to be knowledgeable about both content and the ability to express that content effectively and accurately. Often at the time of document preparation, those from whom the writer/communicator should be able to secure the best information are not the best providers. Much of new research in both technical and scientific fields is proprietary, and every effort is often made by research organizations to suppress information. Knowing how to search government and other online documents, for grant information, for example, can yield helpful data. Thus skill in searching the Internet accurately and effectively as a virtual library for reliable information should be another border for Technical and Scientific Communication Programs to note, by liaison with librarians and archivists to teach effective Internet research on a professional basis. Such training also reinforces the researcher ability to avoid unintentional plagiarism.

It is true that we often gain valuable information through routine search with Google or other search engines and serendipity is often kind to the casual searcher or surfer. But programs need to reinforce their strengths by training students in professional methods for securing reliable, up-to-date, effective data that can be appropriately documented. Some of the constant hazards the untrained searcher faces are (1) inaccurate or undated data, (2) source unreliability—unable to track a verifiable, documentable source of the



information or data, (3) search not reliable—unable to replicate the search or revisit all sources originally consulted, (4) finding expired or blocked linkages, sometimes resulting in loss of search to that point, (5) incomplete coverage of desired sources, because a sequenced search process was not implemented or adequate database was not consulted, and (6) the time frame was inadequate or inappropriate. Given some or all of the above, the resulting research is not only less effective, it may be a form of information chaos.

Ethics of information use and the skills in locating information are two elements in

## Technology and the Learning/Teaching Divide

Cynthia Selfe, *Michigan Technological University*

Richard Selfe, *Michigan Technological University*

*Keywords: technological responsibilities, instructional dyad, pedagogical expectations*

Because of our responsibility to provide technologies to undergraduate and graduate technical communication programs, we have been privileged on a daily basis to cross a fundamental border running through our discipline: the Learning/Teaching Divide. As technical communication program developers, we often try to put to one side the troublesome notion that we should be constantly learning from students—studying their technological literacy practices & learning from them about new technologies being used in our culture and in businesses. But when we put to one side ("Let the IT department worry about that!") our technological responsibilities, we miss an important opportunity to build communities of workers and scholars ("communities of practice," Brown & Duguid 2000) that anchor our programs. The more we work with interested students in the redesign and implementation of our digital working ecologies (Nardi & O'Day, 1998), the more blurred the border between learning and teaching becomes and the more our success can be measured in our mutual commitments to community. We all bring valued skills, attitudes, and approaches to the task of re-invigorating the technical component of our technical communication programs.

our programs that are currently changing significantly. We not only need to define our program borders but also reach out to enrich our offerings to best serve the needs of students.

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Unfortunately, though our discipline attends carefully to student needs within the classroom, we are often quite blind to the work performed by student technical consultants outside the normal instructional dyad. The successful implementation of our "techno-pedagogical explorations" (Selfe, 2003) is often quite dependent on these students, whose service and help construct the technology-rich environments on which we have all become richly dependent. It seems only appropriate then that we take some time to listen to the voices of those behind the scenes. Student consultants are willing to tell us, if we'll listen, about whom we should be hiring/recruiting, what WE have to learn, and how we might choreograph our next set of pedagogical explorations. They tell us, for instance that good consultants are folks who:

- can intuit how much we want to know at the time;
- teach us how to learn as well as how to do;
- are willing to help us with short-term and long-term IT goals;
- are willing to admit when they don't know but then show us how they find out; and
- are willing to form a "community" of supporters and users. That is, they

are people willing to help create and maintain a community;

These and many other attributes take a lot of work, good humor, & respect. If we are to be good "users" of the techno-pedagogical systems they support, we should remember that;

- Consultants are students (with personal & academic lives of their own);
- Consultants are not just students: they are active professionals;
- We also need to help form a "community of practice" of supporters and users;

- We should get to know the etiquette of our spaces, the range of what's acceptable, and when to push those boundaries;
- If we are getting good support, we should take chances and try things—mess things up—before calling for support; and
- There are many other important attitudes and approaches that require work, good humor, and respect. We need to learn them all.

## Theorizing the Borders of Academic Technical Communication

Geoffrey Sauer, *Iowa State University*

*Keywords: status, academics, editorial judgement*

Paul Smith wrote in *Discerning the Subject* (1988) that maturity depends upon 'discernment,' or our ability to recognize the borders that both define us and allow us to differentiate ourselves from those around us. According to such a definition, disciplinary borders are not simply 'good' or 'bad,' but rather a constellation of issues to decide, as each defines and shapes us—in the case of the technical communication, shapes the work we can perform and the place we fill within the university and workplace.

As technical communication programs come to accept our field's (emergent) status as a profession, we need to discuss more carefully how to judge the boundaries of Technical Communication as an academic field. Although many writers have recently called for efforts to span traditional borders between workplace practice and academic study of the field (Carver 1998, Sutcliff 2000, Eaton 2001 and Smith 2002 among others), doing so in practice can be quite difficult. From my experience as a member of the editorial board of the EServer Technical Communication Library (<http://tc.eserver.org/>), a website of resources in the field (originally founded explicitly to support such inter-disciplinarity), I would today suggest that there are numerous practical and theoretical issues still remaining to resolve in how the field

delimits and judges the diverse forms of work we perform.

By creating a single scholarly resource that indexes, categorizes and rates work from both industry practice and academic research—including articles from peer-reviewed journals such as TCQ and Technical Communication, practitioner resources such as Intercom and TECHWR-L, proceedings from conferences such as CPTSC, STC, SIGCHI and SIGDOC, and individual technical communicator websites with advice for practitioners—has led to complex editorial challenges. How, for instance, should we review and rate such diverse materials? Can we develop one standard to rate the quality of diverse forms of writing?

To ask a further question, what epistemology would qualify us to judge? When the Technical Communication Library was first founded, we expected it to index approximately equal numbers of academic and industry writings. But after three years of collection development, of the 4,161 works in the Technical Communication Library catalogue at the time of this proposal, only 450 (about 11%) of the works have acquired our editors' rating as "peer reviewed". If practitioners are more prolific than academics in representing the field online, is it necessary to adjust the means by which ratings and categories are

developed for organizing a catalogue of the field's resources?

This presentation will argue that an honest editorial policy would have to admit that the development of disciplinary resources such as the Technical Communication Library involves creating boundaries by naming them—boundaries that are not as clear-cut as we might wish. For example, even distinguishing which technical communication works are peer reviewed remains a judgment call—the result of editorial policy decisions. We have chosen, for example, not to identify papers from the Society of Technical Communication Proceedings as peer-reviewed, though the papers are (to some degree) reviewed prior to acceptance at the

Society of Technical Communication International conference.

If the Technical Communication Library (or any other venture) could persuade practitioners and professionals to accept its editorial judgment, it will be by offering value to users in terms of the borders it promotes and those it discourages. This paper will suggest that efforts such as the Technical Communication Library, our academic programs, and our publications (both workplace and scholarly) must attempt (through a version of what Antonio Gramsci called 'public intellectual' work) to lead the field by creating conscientiously considered borders that are more fully articulated than those that have come before.

## Looking for Answers: Professional Writing Curricula, the Service Course, and Preparing Teachers for the Diverse Academic World

### The Service Course and its Stretchable/Permeable Borders

Celia Patterson, *Pittsburg State University*

*Keywords: borders, permeability, rhetorical goals*

I know that the borders of the Technical/Professional Writing Course, a service course at Pittsburg State University in Pittsburg, Kansas, are out there somewhere, but I can't see them. I don't know if they have been stretched so far that they are beyond the horizon or if they have become so permeable that they are invisible. Their stretchability/permeability seems to be caused by the small size of our program. In fact I think the smaller the program, the more stretchable/permeable the borders of the service course must become.

Our program began when the College of Technology asked the English Department to create a service course that would meet their accreditation standards. Thus our program was born with the service course, that was itself born at the borders of those two entities—not really at the borders, but in the area where those two borders overlapped. When the College of Technology reached out, we took them in, but they took us in as well.

Later, the English Department developed an emphasis in technical writing, as well as a minor. Because our program is

small, so we can't offer a separate introductory course for technical writing majors and minors. The service course is the first course they must take. Those of you who administrate programs that provide a service course and also offer an emphasis or a major or minor know that you are administrating two different programs. Yet our service course has to serve both. How do we make it work? By stretching its borders—by allowing more latitude in the ways students can interpret assignments, by personalizing the course as much as possible. We offer the same latitude and personalization to students from other majors, such as business or education or computer science, who take the course as an elective. We stretch our borders to include those interests as well.

The recent name change of our service course from Technical Writing to Technical/Professional Writing illustrates the protean nature of the course. The slash between Technical and Professional represents a border within the course itself, but, again, although it's a border that I know exists, I can't see it. Where does one kind of writing end and the other begin? Are we are

really teaching two different kinds of writing? Or one kind of writing, in which the borders can be pushed this way or that way to accomplish different rhetorical goals?

It used to bother me that I couldn't clearly see the borders of the service course, but now I think that their stretchability/permeability are some of the course's important strengths. Those qualities have attracted more students and

## **From PhD to Professor: Navigating Institutional Boundaries and Finding a Voice in Emerging Technical Communication Programs**

Michael Knieval, *University of Wyoming*

*Keywords: border, success, graduate programs*

The border between institution types has long been a site of conflict and interest in the field of technical communication. One related border is becoming increasingly important: the border(s) between a diversifying range of institutions interested in technical communication and the PhD—granting institutions supplying them with teachers/scholars.

Helping new graduates negotiate these amorphous boundaries is paramount not only to the success of graduate programs and their graduates but also to the academic vitality of technical communication as a field; thus, professional development in doctoral programs must prepare graduates for such challenges. The academic's role as an advocate for the field must be emphasized, too, with the understanding that such advocacy is characterized in many context-specific ways along a continuum of different institution types and their corresponding positions toward another boundary—the boundary between the humanities and technology. I make this argument with the following assumptions in mind:

- Newly-minted PhDs are coming from research-intensive doctoral programs that, for the most part, see the humanities and technology as intimately related
- Doctoral programs are not "representative" of the way technical communication is viewed in most universities and/or English department settings

gained support for the program from many departments and colleges across campus. What I would like to change, though, is the slash between technical and professional in our course title. Instead of a punctuation mark that represents a border, I would like a punctuation mark that represents the ability to stretch and to absorb and to grow stronger in the process.

- Many, if not most, institutions employing new technical communication PhDs hire with an immature sense of technical communication as a field.

New PhDs take positions in departments and programs with radically different expectations, and epistemological positions than those held by PhD—granting institutions in technical communication. And although such dissonance occurs in all parts of English Studies (consider the Ivy League-educated lit professor moving to a small rural college in the West, for instance) technical communication's situation is uniquely characterized by contradiction between 1) relative validation in both the public/economic sphere and academic administrative circles and 2) continued skepticism in traditional English department settings where programs and curricula in technical communication often find themselves. New graduates' range of responsibilities in new institutional settings includes program building and complementary disciplinary advocacy in a variety of political and epistemological contexts clearly bounded from the PhD—granting institutional culture.

To enhance graduates' ability to thrive in the field, graduate programs in our field must be increasingly responsive to a variety of audiences and the boundaries between and among them—not only the immediate audience of students in the program, but also to other audiences that are not so clearly defined: the programs graduates will one day enter and shape. We must work

together to develop a rich profile of institutions developing programs and curricula in technical communication with an

eye toward preparing new professors to meet the unique challenges emerging in these sites.

## Looking for Trouble: Moments of Crisis in a Professional Writing Curriculum

David Franke, *SUNY Cortland*

*Keywords: curriculum, creative, collaborative*

As a new director of a new Professional Writing program, my colleagues and I spent much of our time designing curriculum. The sequence and content of our courses, we felt, were the only real way to make our program more than the sum of its parts. One of our assumptions when starting this program was that we would create a powerful, positive and commodious curriculum that would leave no student wanting and make each class compliment the one it followed and preceded. The goal was an absence of confusion, dismay, and, to be honest, attrition.

But as Jim Henry (2000) discusses in *Writing Workplace Cultures* (24), a writer's identity is often created by the clash between the self and the context. That is, our we overlooked how our students would understand and remake the curriculum once they matriculated. Our experiences in the last year have proved not only that a "trouble-free" curriculum is idealistic, but that there are several unavoidable crisis moments it must sponsor for our students. In "Looking for Trouble" I will discuss how my colleagues and I developed a way to recognize these moments and even plumb them for their value. I will offer three

examples: the moment when our "creative" students encounter technical writing, a course I have come to believe they must (initially) misunderstand. A second example is found in their encounter with collaborative work. A third is represented by their reluctance to "theorize" in classes that stress rhetorical or new media theory.

Thus my argument, illustrated with examples, is that these moments of crisis are best understood as transformational rather than distracting. I will discuss some problems and risks we have taken to develop this perspective. Next, I will talk in practical terms about how this re-vision of our curriculum has led us to some changes in how we design and teach our course sequence. Finally, in keeping with established practice of CPTSC, I will open the discussion to others who can challenge or confirm the necessity of "looking for trouble" in a Professional/Technical writing curriculum.

### References

Henry, Jim. (2000). *Writing workplace cultures: An archeology of professional writing*. Carbondale, IL: SIUP.



# Business Meeting Minutes

## CPTSC 30<sup>th</sup> Annual Business Meeting

Saturday, October 6, 2003

Potsdam, New York

1. Meeting called to order at 9:00 a.m. with 56 members in attendance.
2. Announcements regarding the Saturday excursion—*Bill Karis*
3. Minutes from 2002 business meeting.

Dan Riordan made the motion to approve the minutes; Debby Andrews seconded the motion. The motion passed unanimously, approving the minutes without revisions.

#### 4. Standing reports

a. ***Treasurer's Report—Karen Schnakenberg.***

Karen reported a balance on-hand of \$17,270.22, with 134 individual memberships (80 from the October 2002 conference and 54 additional paid as dues only.)

b. ***Secretary's Report—Kelli Cargile Cook***

Kelli reported that she had contacted USNews.com to ask them to include technical communication in its listing of disciplines that offer online degrees. She will report back when she receives a response.

c. ***Publications—Ann Blakeslee***

The 2001 *Proceedings* are on the CPTSC website. The 2002 *Proceedings* are complete and about to be sent to the website. (15 archival copies will be printed and sent to various archival institutions and sites.) Ann acknowledged Jay Steichmann, who assisted her with completing the proceedings. Ann also reminded attendees that she will be sending out our request for revisions in a month or two, and Nancy Allen requested that attendees revise their original submissions to include any interesting discussions that followed the presentation. Plenary panelists and the keynote speaker will also be asked to submit their papers.

d. ***Program reviews—Carole Yee***

No report from Carole Yee. The University at Arkansas-Little Rock faculty requested a program review this coming year.

e. ***Website—Bill Williamson***

Bill reported that Tracy Bridgeford will assist him with the job postings on the website this year and that he will continue to archive the Distinguished Service Award testimonials on the website. The website will migrate to a new host site this year, and Geoff Sauer is currently setting up the apparatus to allow electronic voting. A pilot test of this apparatus will be conducted this spring, and Stuart Selber will create the mock election ballot. The actual election will be conducted in summer, 2004. Geoff Sauer has also offered to set up a use log, that will provide statistics on who is using the site and why. Bill noted that the website archive is continuing to develop and said he would like to gather print materials from the Minnesota archive and migrate some of them in electronic format to the website. Finally Bill requested that anyone interested in helping him with the website to contact him.

f. ***Distinguished Service Award—Stuart Selber***

Steve Bernhardt was awarded the DSA in 2003 and testimonials will be collected at the website. This year's DSA committee was composed of Mary Coney, Dan Riordan, and Carolyn Rude.

**g. CPTSC Research Grants—Kelli Cargile Cook**

Kelli reminded participants of the CFP for research grants and noted that Jan. 30, 2004 was the deadline for this year's grant. Cindy Selfe suggested that the CPTSC also consider leadership grants, travel grants, or research grants for students, adjuncts, and practitioners of color to improve the diversity of the field and the conference attendees. Meg Morgan suggested that CPTSC review the McNare program as a model for such grants, and Amy Kimme Hea suggested that CPTSC also consider scholarship as a means of supporting graduate students of color.

In response to these suggestions, Bruce Maylath called for a committee to make recommendations to study these issues and make recommendations for how the organization can improve diversity in membership and in programs across the country. The committee was charged with identifying activities and funding toward these ends. Seventeen members volunteered for the committee, including Jan Tovey, Jerry Savage, Cindy Selfe, Jim Porter, Denise Tillery, David Sapp, Margaret Hundleby, Meg Morgan, Molly Johnson, Heather Sehmel, Carolyn Rude, Stuart Selber, Linda Driskill, Amy C. Kimme Hea, Ty Herrington, Dan Riordan, and Thomas Barker. Following the conference, Bruce Maylath will appoint a committee chair who will contact the committee to begin discussions.

**5. Other Reports**

**a. CPTSC in Milan, Italy—Bruce Maylath**

Bruce reported that international membership is increasing and that the attendees at last summer's meeting in Milan are interested in forming a chapter or European unit of CPTSC. Bruce introduced Charlotte Kaempf who represented this group at this year's meeting in Potsdam. Charlotte said that European members would like to meet annually and that their meetings might be slightly modified, given their different academic organizations and different programmatic needs. He noted that forming such a unit would require a constitutional amendment and called for volunteers to form a committee to study this question. Debby Andrews, Karen Schnackenberg, and Charlotte Kaempf were all appointed to the committee. Other volunteers included Ken Rainey, Meg Morgan, Rick Mott, Cindy Nahrwold, and Ty Herrington. In addition, Bruce will ask several other European members to join the committee. Meg Morgan suggested that the committee begin its research by examining how the WPA awards affiliate status to organizations. Following this discussion, Ken Rainey discussed the cooperative effort he is working with TekCom to develop an international cohort of teachers of technical writing.

**b. ATTW—Dan Riordan representing Jo Allen**

Dan Riordan reminded everyone of the upcoming ATTW conference and its deadline for proposals on October 15. Sean Williams discussed the mentoring reception that ATTW is holding for new members and graduate students, and he recommended that CPTSC consider a similar kind of reception. Kelli Cargile Cook announced TCQ's updated web information on ATTW.org and explained the new submission guidelines.

**c. STC—Sandi Harner**

Sandi reminded participants of the upcoming nomination call for the Jay Gould Award. She also reminded everyone about the national honor society for students, Sigma Tau Chi, and about the need to keep program information updated on Society of Technical Communication.org. She noted that the first academic salary survey was now available online and would soon be available in an upcoming TCQ issue. The Society of Technical Communication conference is adding a peer-reviewed stem for academics, and a new committee has been formed to provide better student support, including ideas for fundraisers, chapter events, and student conferences. Finally, Sandi described changes in the STC research grant process and encouraged interested CPTSC members to apply.

**d. ACM SigDoc—Stuart Selber for Johndan Johnson-Eilola**

Stuart noted that the next meeting will be in Memphis with Johndan as general chair and Michael Albers as local arrangements chair. He reminded everyone of the SigDoc student scholarship and graduate paper award. Finally, Stuart said that the SigDoc journal would be published under a new name, the Journal of Communication Design.

e. **CCCC Committee on Technical Communication—Stuart Selber**

Stuart noted the October 15 deadline this year for nominating outstanding dissertations. An article about the six-year history of the award will appear in an upcoming issue of TCQ.

f. **Consortium for the Study of Engineering Communication—Linda Driskill**

Linda described the consortium's continued efforts to gain NSF funding. They have identified a new NSF funding possibility and will be proposing a project in the upcoming year.

g. **Technical Communication Summit—no activity since June 2000**

6. **Old Business—none reported**

7. **New Business**

a. **Bill Williamson** reported that his university and others in his region would be holding a one-day regional conference/discussion session in February or early March. He will report back on the meeting so others may begin their regional meetings.

b. **Ken Rainey** discussed an upcoming book on German and US programs. He will be coordinating a chapter on US programs and asked for help from CPTSC members.

c. **Bruce Maylath** discussed the CPTSC mission and noted that some members were dissatisfied with the conference program's lack of specific support for program directors. The attendees discussed ways that this support could be enhanced. Suggestions for improving support included specific sessions (roundtables) for program directors or individuals charged with developing programs, expanded poster presentations, and lunch sessions for individuals with specific issues they would like to discuss. Program chair for next year, Nancy Allen, agreed to work on including more support in next year's program.

Bruce Maylath reported on this year's synchronous online conference that was requested by European members of CPTSC who could not attend. The group discussed suggestions, such as using a synchronous reporter in individual sessions, to improve the online conference.

8. **Upcoming CPTSC meetings**

9. **2005**—Bruce Maylath reported that Simon Fraser and University of Washington will be unable to host the 2005 conference. Texas Tech University's representative, Thomas Barker, extended an invitation for the 2005 conference.

a. **The 2003** Potsdam local arrangements committee will develop an application form/proposal that will be in place next year for institutions wishing to host the future conferences, beginning in 2006.

10. **Invitation to Purdue/West Lafayette—Marj Rush Hovde, IUPUI**

Meeting Adjourned at 11:45 a.m.

# Treasurer's Report

## Treasurer and Membership Report and Annual Dues Notice

*Karen Schnakenberg*

We began 2003 with balance on hand of \$17,605.73 and ended the year with a balance of **\$19,469.72**, with the majority of income coming from membership dues. The balance on hand as of June 1, 2004, is **\$24,084.24** with the only debt outstanding being \$1,500.00 to be paid to the three recipients of the CPTSC research grants (\$500.00 each). We currently have 162 active members, up from 134 in the 2002–03 dues year, plus one institutional member, the University of Minnesota.

The CPTSC dues year runs from October 1 to September 30. If you have not paid your **2003–04 dues**, there's still time to do so. You can download the application/form from the CPTSC website and send it along with your check or simply include a business card with your full contact information. If you are unsure of your membership status, contact our Treasurer, Karen Schnakenberg, at her email address listed in the following contact information.

Notices for **2004–05 dues** will be sent out as part of the mailing for the October 2004 annual meeting at Purdue. At that point, you will have two ways to pay your annual dues of \$20.00:

- 1) If you will be attending the annual conference in October, your registration fee will include \$20 to cover your 2004–05 dues, and you do not need to worry about paying it separately. All conference attendees must be current members.
- 2) If you are not attending the conference, then you should send a check for \$20 for your 2004–05 dues by October 1, 2004. The check should be made out to CPTSC and sent directly to our treasurer:

Karen R. Schnakenberg  
CPTSC Treasurer  
Department of English  
Carnegie Mellon University  
5000 Forbes Avenue  
Pittsburgh, PA 15213  
krs@andrew.cmu.edu

And while you're at it, you might consider asking your department to join the University of Minnesota as an institutional member. **Institutional memberships** are \$100 per year and help to support our research grants and conference fees for graduate students volunteering at the annual meeting.