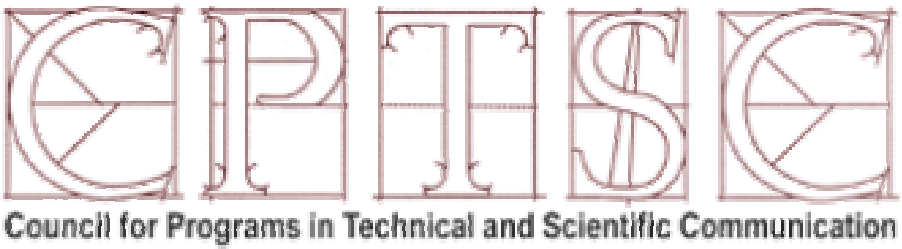
Complicating Binaries: Exploring Tensions in Technical and Scientific Communication

Proceedings 2002

29th Annual Conference

Logan, Utah



About CPTSC

Purpose: The Council for Programs in Technical and Scientific Communication 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: CPTSC offers program reviews. The reviews involve intensive self-study as well as site visits by external reviewers. Information is available at the CPTSC Web site.

Web site: 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.

Listserv: CPTSC's listserv is CPTSC-L. To subscribe, send an email message to majordomo@clarkson.edu. Keep the subject line of the message blank and delete your signature block if you use one. In the first line of the message type subscribe CPTSC-L your_email_address

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About the 29th Annual Conference

The 29th annual CPTSC Conference was held at Utah State University in Logan, Utah, and was hosted by the English Department's Professional and Technical Writing Program. Sessions were held in the Eccles Conference Center on the Utah State campus. The campus, nestled between the Bear and Wellsville ranges of the Wasatch Mountains, lies in the Cache Valley. Participants enjoyed scenic mountain views as they walked across campus during the conference and hiked the colorful Crimson Trail on Saturday's excursion. Presentations focused on the theme of "Complicating Binaries: Exploring Tensions in Technical and Scientific Communication," inspired by the Janus year of 2002.

Upcoming Conferences

2003: October 2-4	Potsdam, NY	Clarkson University
2004: October	West Lafayette, IN	Purdue University
2005: October	Lubbock, TX	Texas Tech University

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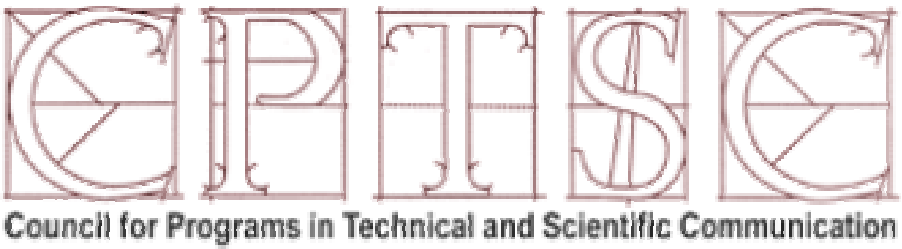

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Keynote Presentation

Globalization and Critical Consciousness in Technical and Professional Communication

Thomas Huckin University of Utah

In the business and technical world, increasing attention is being given to globalization. Yet, in technical and professional communication (TPC) textbooks and scholarly publications, globalization receives only the faintest nod. I find this strange, given the clear interest in context, ethics, and social issues among contemporary TPC scholars and theorists. In my view, if this broad scope of interest were extended beyond our national borders, as it should be, TPC researchers and teachers would naturally give more attention in their scholarly publications and in their classroom teaching practices to the sociopolitical aspects of globalization. Such a move would add depth and relevance to the entire enterprise of teaching technical and professional communication in today's world.

Theoretical precedents

What I am proposing in this paper is not entirely novel. Carolyn Miller, for example, long ago championed the idea that technical and professional communication courses should include attention to civic issues:

> Understanding practical rhetoric as a matter of *conduct* [*phronesis*] rather than of production, as a matter of arguing in a prudent way toward the good of the community rather than of constructing texts, should provide some new perspectives for teachers of technical writing and developers of courses and programs in technical communication….
>
> An understanding of practical rhetoric as conduct provides what a *techne* cannot: a locus for questioning, for criticism, for distinguishing good practice from bad. That locus is not the individual or any particular set of private interests but the human community that is created through conduct… While the good that praxis in this higher sense creates may include the interests of individuals and industry, it is larger and more complex; the relevant community is not the working group or the corporation but the larger community within which the corporation sells its products, pays taxes, hires employees, lobbies, issues stock, files lawsuits, and is itself held accountable to the law… If technical writing is the rhetoric of 'the world of work,' it is the rhetoric of contemporary praxis. In teaching such rhetoric, then, we acquire a measure of responsibility for political and economic conduct. (1989)

Not long after, Dale Sullivan added to Miller's thoughts by noting that if technical communication is seen as praxis, we should expand its scope to include political discourse:

> Many of us do not agree or identify with the values of the technological society and the military-industrial complex. Instead, we identify with a variety of alternative social groups quite diverse in their plurality but all

> sharing at least one value: that human beings should not be subordinated to the technological imperative. As such, we want to regain the upper hand; that is we want to make technology serve humans instead of letting technology shape our society and its values. Therefore, we can call technical communication a virtuous practice only when it is put to the service of one of these alternative humanistic visions. But the very thought processes embodied in most modern technical genres have grown out of the technological mindset, and they continue to support the dominance of the technological society while denying people the power to take social action as citizens when they write. In effect, if we continue to teach these genres, we indoctrinate our students into a system we don't agree with; but if we stop preparing them for their roles in the technological world, then we are no longer really teaching technical communication according to the social contract that we all bought into when we agreed to teach the course." (379)

Sullivan then listed the possible actions facing anyone in this dilemma: "(1) You can get with the program, change your values, and become a representative of the technological society; (2) you can leave the profession of teaching technical writing; (3) you can become schizophrenic; or (4) you can figure out how to change your course so that it at once teaches the discourse appropriate for the technological world *and* makes students aware of the values embedded in such discourse and the dehumanizing effects of it." (*ibid)* He, of course, opted for this last course of action.

Globalization

One of the defining features of our times is globalization, defined by the financier/ philanthropist George Soros as "the development of global financial markets, the growth of transnational corporations, and their increasing domination over national economies" Also known as *corporate globalization*, it contrasts with *grassroots globalization*, which is based on social justice, regulation of capital, and respect for local cultural preferences.

Globalization is not new. Rather, as Kevin Phillips points out in *Wealth and Democracy,* globalization has been occurring in waves for the past 500 years. It was first led by the Spanish and Portuguese, then by the Dutch, then by the British, and now by the US. However, according to Zbigniew Brzezinski, this is the first time in history that globalization has been led by a truly global world power, as the previous empires did not enjoy complete global hegemony in so many ways.

> In brief, America stands supreme in the four decisive domains of global power: militarily, it has an unmatched global reach; economically, it remains the main locomotive of global growth…; technologically, it retains the overall lead in the cutting-edge areas of innovation; and culturally, despite some crassness, it enjoys an appeal that is unrivaled, especially among the world's youth—all of which gives the United States a political clout that no other state comes close to matching

The US spends more on its military than the next 15 nations combined. It is the biggest arms dealer in the world. It has 5% of the world's population but uses 40% of the world's basic resources and emits 25% of the world's CO2.

Brzezinski argues that the US likely will also be the *very last* global superpower. That's because "in the long run, global politics are bound to become increasingly uncongenial to the concentration on hegemonic power in the hands of a single state… Nation-states are gradually becoming increasingly permeable [and] knowledge as power is becoming more diffuse, more shared, and less constrained by national boundaries… [Furthermore, there is] the new web of global linkages that is growing exponentially outside the more traditional nation-state system. That web—woven by multinational corporations, NGOs (many of them transnational in character) and scientific communities and reinforced by the Internet—already creates an informal global system that is inherently uncongenial to more institutionalized and inclusive global cooperation." (209, 215)

Writing recently in *The New York Times,* Tina Rosenberg notes that:

> Globalization is a phenomenon that has remade the economy of virtually every nation, reshaped almost every industry and touched billions of lives, often in surprising and ambiguous ways. The stories filling the front pages in recent weeks – about economic crisis and contagion in Argentina, Uruguay and Brazil, about President Bush getting the trade bill he wanted – are all part of the same story, the largest story of our times: what globalization has done, or has failed to do.
>
> Globalization is meant to signify integration and unity – yet it has proved, in its way, to be no less polarizing than the cold-war divisions it has supplanted. The lines between globalization's supporters and its critics run not only between countries but also through them, as people struggle to come to terms with the defining economic force shaping the planet today. The two sides in the discussion – a shouting match, really—describe what seem to be two completely different forces. Is the globe being knit together by the Nikes and Microsofts and Citigroups in a dynamic new system that will eventually lift the have-nots of the world up from medieval misery? Or are ordinary people now victims of ruthless corporate domination, as the Nikes and Microsofts and Citigroups roll over the poor in nation after nation in search of new profits?"

Corporations are indeed the dominant players in all of this:

- Of the 100 largest economies in the world, 51 are corporations; only 49 are countries.
- The top 200 corporations' combined sales are bigger than the combined economies of all countries minus the biggest 10.
- While the sales of the top 200 are the equivalent of 27.5 percent of world economic activity, they employ only 0.78 percent of the world's workforce.
- Between 1983 and 1999, the profits of the top 200 firms grew

362.4 percent, while the number of people they employed grew by only 14.4 percent.

- A full five percent of the top 200s' combined workforce is employed by Wal-Mart, a company notorious for union-busting and widespread use of part-time workers to avoid paying benefits.
- US corporations dominate the top 200, with 82 slots (41% of the total).
- Of the US corporations on the list, 44 did not pay the full standard 35% federal corporate tax rate during the period 1996-1998. Seven of the firms actually paid less than zero in federal income taxes in 1998 (because of rebates). These include: Texaco, Chevron, PepsiCo, Enron, WorldCom, McKesson and the world's biggest corporation - General Motors.
- All this, plus their lack of public accountability, has made the globe "a friendly playground for the transnational corporation" (Institute for Transnational Corps.)

Many corporations have abused their power. Consider just these few examples:

1. The explosion of the Union Carbide pesticide plant in Bhopal, India in 1984. This is the world's deadliest industrial disaster, with 22,149 deaths as of 1999, with more still to come, plus countless deformities and chronic illnesses. The accident was caused by poor maintenance due to reckless cost-cutting; the company has still not cleaned up the site and no executive has been punished.
2. Shell's persecution of Ogoni tribesmen in Nigeria, including the hanging of poet/activist Ken Saro-Wiwa and eight others in 1995. This past summer five ChevronTexaco facilities were seized by Nigerian women demanding jobs for their men.
3. Unocal's use of Burmese soldiers to force villagers to build a pipeline. Some of these villagers were raped and murdered by these soldiers, and a US federal panel ruled just two weeks ago that Unocal can be held liable for this in US courts. Unocal also supported the Taliban in Afghanistan up until 9/11.
4. Pharmaceuticals vs. AIDS: Of 25 million HIV carriers in Africa today, less than one-tenth of one percent are receiving drug treatments that could save or at least prolong their lives. Meanwhile, the top 10 US pharmaceuticals made $100 billion profit last year. Cipla (India's largest pharma) sells an anti-AIDS pill for 64 cents that the US pharmas charge $25 for.
5. Some other examples include Enron's Dabhol power plant in India, ExxonMobil's activities in Indonesia, and Nike's use of sweatshop labor in Malaysia. These and others are detailed on websites for Human Rights Watch,

Amnesty International, FAIR, National Labor Committee, etc. See, for example, http://www.globalissues.org/TradeRelated/Corporations/HumanRights.asp

6. And, of course, there are environmental issues of all kinds, as described on websites for Greenpeace, Earthjustice, Union of Concerned Scientists, Sierra Club, the UN's Intergovernmental Panel on Climate Change, and so on.

Meanwhile, the richest 1 percent of the world's population receives as much as the poorest 57 percent.; 1.2 billion people live on less than one dollar a day, 2.8 billion on $2 dollars a day.; 1.1 billion lack access to safe drinking water; 826 million suffer from malnutrition; 11 million children die each year of preventable causes; and 113 million children of primary school age are not in school. [UN Capital Development Fund, 2002]

At the UN General Assembly in 2000, heads of state and government took stock of the gross inequalities in human development worldwide and recognized "their collective responsibility to uphold the principles of human dignity, equality and equity at the global level". They set eight goals for 2015:

- Eliminate poverty and hunger
- Achieve universal primary education
- Achieve gender equity and empower women
- Reduce child mortality
- Improve maternal health
- Combat HIV/AIDS, malaria, and other diseases
- Ensure environmental sustainability
- Develop a global partnership for development

A common reaction to the grim statistics on the one hand and these (seemingly idealistic) goals on the other is to throw up one's hands and say, what can anyone do? This is certainly understandable, but as financial experts like William Tabb and George Soros say, "It's wrongheaded." There are realistic ways to solve these problems, and I recommend Tabb's *Unequal Partners* and Soros's *George Soros on Globalization,* both published this year. Soros, an ardent and unusually progressive globalist, says there are four main tasks before us:

- Containing the instability of financial markets
- Correcting the built-in bias in our international financial and trade institutions that favors the developed countries that largely control these institutions
- Complementing these international financial and trade institutions with similarly powerful institutions devoted to poverty reduction, provision of public goods, and other social goals
- Improving the quality of public life in countries suffering from corrupt, oppressive governments.

Tabb takes a more radical approach, explaining in detail how corporate globalization can be countered by a grassroots form of globalization, the

seeds of which have been planted in the well-publicized protests in Seattle, Genoa, and elsewhere.

Among the many important and encouraging points he makes is the fact that about 90% of all capital flows in the global marketplace are the global equivalent of day-trading, i.e., very short-term speculative transactions involving currencies. None of these transactions are presently taxed, but if they were taxed at even a very small level, as Nobel laureate James Tobin has proposed, it would provide the funding necessary to finance the goals mentioned earlier. Many experts, politicians, and financiers support such a "Tobin tax," which according to Tabb would raise more than a trillion dollars a year. (232)

Most graduates of our TPC courses go on to careers in American corporations, and most will either work abroad for some time or have significant interactions with colleagues or customers overseas. And it is a shrinking world: already one-third of US profits are earned in international trade; four out of five new jobs in the US are created to produce goods and services overseas; and current US investments overseas are worth over $300 billion. (DeVoss). Thus, for instrumental reasons alone, our students should be made aware of how Corporate America works, both for better and for worse, both at home and abroad.

How is TPC responding?

Given the importance of globalization and the importance of Corporate America in carrying it out, one would think that TPC would be giving it major emphasis. But that's not the case:

Textbooks. TPC textbooks pay only lip service to globalization, using the umbrella term "multiculturalism" (which conveniently includes domestic ESL audiences). For example, Markel (2001) has one page advocating the "moral minimum" in international marketing, three and one-half pages on understanding multiculturalism (including the usual guidelines for writing for international readers such as "keep sentences short," "limit your vocabulary," etc.), two and one-half pages on ethics and multiculturalism (including a nice case study), one-half page on persuading multicultural audiences, two pages on creating graphics for multicultural audiences, and one page on writing instructions and manuals for multicultural readers. This adds up to about 11 ½ pages in all (out of 745 pages), or 1.5 percent. It's good on an instrumental level, but does nothing to challenge capitalist orthodoxy.

Burnett (2001) has three pages on international collaboration, four pages on cross-cultural product information, a two-page example of an international report, three pages on international manuals, and three sentences on giving an oral presentation to an international audience. This adds up to 12 pages out of about 800, also 1.5percent. It too is strictly instrumental in its orientation.

Jones and Lane (2002), after noting that "Today's workplace is international or global," devotes less than three pages out of 760 to international topics. Included are the usual embarrassing mistranslations, such as "Coors translated its slogan 'Turn it Loose' into Spanish, where it read as 'Suffer from Diarrhea.'"

Andrews' *Technical Communication in the Global Community*, 2nd edition (2001) is a unique and comprehensive textbook, covering all sorts of aspects of international technical communication. Even with its lengthy discussion of

cross-cultural ethics, though, it is largely instrumental.

Hoft (1995) is a unique scholarly monograph on the subject of international technical communication. Unfortunately, it too takes an entirely uncritical stance on corporate US activities overseas. Even the subtitle of the book, "How to Export Information about High Technology," presupposes American superiority.

Journal articles. Scholarly articles in our field generally mirror the instrumentalism of textbooks. For example, DeVoss, et al. (2002), lists five challenges in teaching intercultural communication: (a) Focusing on characteristics of students' own cultures, (b) replacing notions of cultural stereotypes with more fluid understanding of tendencies, (c) avoiding limiting guidelines for good ITC to guidelines for good tech comm. in general, (d) developing a more sophisticated sense of design considerations for ITC, and (e) encouraging students to move ITC beyond the classroom. This article is perhaps the best of its kind, but it deals with intercultural communication and is almost entirely uncritical.

Greg Wilson's "Technical Communication and Late Capitalism: Considering a Postmodern Technical Communication Pedagogy" (2001) discusses the challenge of being a technical communicator in a global, postindustrial economy. He notes, among other things, that:

> Technical communication pedagogy has not historically been concerned with agency, but in a global economy where information increasingly is the product and employees can expect to change careers 6 or 8 or 12 times over a lifetime, changing the way students perceive their relationship to authority structures, technology, and information itself is the greatest positive impact we can have on their lives… If we start now to infuse the work world with symbolic analysts who appreciate the role of technical communication, the world can only be an easier place for those of us who already recognize that value." (97)

The article makes some good points but is instrumental and accommodationist rather than critical. Catherine Fox and David Fisher (2001) take Wilson's paper to task on this issue and urge greater reflexivity, although they say little about globalization.

Conference papers. Conference papers tend to follow suit. Of the 57 papers presented at the most recent ATTW conference, for example, many dealt with civic activism, ethics, gender issues, or politics (usually internal). Six dealt with overseas issues, including a panel of three papers describing new tech comm programs in the Ukraine. A fourth, titled "Steps Toward Globalizing the Technical Writing Classroom," was about an online exchange between novice tech writing students in the US, Belgium, and Denmark dealing with translation problems. Only two papers could be said to address the kinds of issues that I'm talking about today, i.e. the sociopolitical aspects of globalization. Interestingly, they're both centered not on the ascendant American empire but on the after-effects of the long-dead British empire.

In short, at a time when both US imperialism and corporate America are

becoming more and more dominant and are under intense criticism both at home and (especially) abroad, there is a glaring absence of global sociopolitical consciousness in TPC. I think this is a major problem. Students majoring in technical areas, business, pre-med, etc., are seldom exposed to political ideas other than American-style laissez-faire capitalism. If we in TPC raise our sights and broaden our horizons, a TPC course in an English department or writing program might offer these students their only exposure to alternative ideas and would thereby be a truly educating experience.

Reasons for this neglect

Where does this neglect of issues involving corporate globalization derive from? I believe there are at least five distinct causes. First, there is simply the inertia of tradition. TPC has never concerned itself with critical analyses of corporate globalization and therefore would need some prodding to change this pattern. Second, TPC as a field originated and developed in the United States, addressing primarily an audience of American college students. Thus it has always had a domestic orientation. Third, despite its longstanding identity as a melting pot of immigrants, US society has always been somewhat insular. As Hoft notes, "Large countries with large domestic markets encourage ethnocentrism" (127). Geography also plays a role, as is reflected in this joke about American monolingualism: An American couple is standing on the street in Paris. A man walks over and asks a question in French. The Americans shrug. He repeats the question in German, Spanish, then Italian. Getting no response, he leaves. The woman turns to her husband and says, "Maybe we should learn a foreign language, honey." "Why?" responds her husband. "That guy knew four and what did it get him?"

A fourth reason for this neglect, I think, has to do with a general insecurity many of us feel about our knowledge of globalization issues. Even TPC teachers who have traveled overseas and who generally have a good knowledge of world geography and politics may feel uncertain about specific matters of corporate globalization. This problem, however, can be remedied through consulting good primers like Tabb (2002) and Chua (2003). Finally, TPC is dominated by utilitarianism, including the utilitarian interests of corporations, who are potential employers of our students and underwriters of our research; of universities, who welcome such academic-industry partnerships; and of students, who welcome the acquisition of communication skills that are valued on the job market and in the workplace. As Susan Wells has said, "The ideology of technical writing explicitly assents to its instrumental subordination to capital; the aim of the discipline as a whole is to become a more responsive tool" (Wells, cited in Miller 1989).

Reasons to change course

There are many reasons, however, for TPC scholars and teachers to go beyond our traditional, US-focused instrumentalism and include more international topics viewed from a more critical stance. For one thing, issues such as technology transfer, use of labor, and environmental impact fall readily within the domain of TPC instruction and research, and they are also at the forefront of globalization and global politics. Thus TPC can broaden its scope without departing radically from customary topics of interest. Second, US companies are doing more and more business

overseas, with increasingly greater impacts on those societies. Hence, there is more material for both teachers and scholars to work with. Third, students seem to be taking more of an interest in global issues, especially after September 11. Fourth, such a move would be a natural extension of a longstanding trend in TPC, namely, an increasing attention to **context** and its effects on the kinds of documents we want our students to produce. This trend can be seen in the gradual shift from current-traditional rhetoric to social constructionism, postmodernism, and other more contemporary approaches to rhetoric and epistemology. It can be seen in genre study, where emergent genres and hybrid genres and other forms responsive to contextual demands are of more interest than the fixed formats of years ago. It can be seen in audience analysis, as TPC has moved beyond the simple demographic categories and stereotypes of the 70s to usability studies, ethnographies, and other more sophisticated ways of understanding an audience. It can be seen in the emergence of document design as a major component of TPC following the pioneering work by Karen Schriver, William Horton, Robin Williams, and others.

A fifth reason for TPC to change course at this point in history is that our research paradigms are becoming more critical. As Carl Herndl and Cindy Nahrwold have argued, scholarship in TPC has shifted in the past decade from an emphasis on *techne* to a more politically-oriented *phronesis,* as illustrated in the table below:

Institutional Maintenance (e.g. Carroll 1984, Dorazio & Stovall 1997)	← →	**Description** (e.g. Bazerman & Paradis 1991, Spilka 1993)	←→	**Institutional Change** (Selfe & Selfe 1996, Sullivan & Porter 1997)
Instrumental (Self-)regulated Objective **Techne**		Archival		Disruptive/ troublesome Unregulated Contingent **Phronesis**

Model of qualitative research practices (from Herndl and Nahrwold, 2000)

In general, the top journals and conferences in TPC today are more likely to feature sociopolitical topics such as feminism, multiculturalism, and organizational culture than more traditional topics associated with institutional maintenance or description.

Sixth, along with sociopolitical topics there is a longstanding and increasing interest in ethical issues. However, studies of ethics in TPC typically take a critical perspective only when addressing a company-specific situation. What's needed is more awareness of macro issues, international human rights issues, and so on, as manifested for example in the protests of World Trade Organization meetings. Seventh, many TPC scholars have the academic background to do critical work and there is already a burgeoning literature on civic activism in TPC (cf. C. Miller, 1989; D. Sullivan, 1990; T. Miller, 1991; Sauer, 1993; Myers; Selfe & Selfe, 1996; Waddell, 1996; Wells, 1996; Stotsky, 1996;

Segal, et al., 1998; Cook, 2002; Faber, 2002). But except for a single chapter in Faber (2002) illustrating the predations of a US transnational death-care company on a small town in North America, almost none of this scholarly literature relates to globalization.

Finally, critical theories of technology (e.g. Harding, Winner, Feenberg) and of TPC (e.g. Selfe & Selfe, Sullivan & Porter, Ornatowski) can serve as models for critical studies of globalization. Such models can then be incorporated into graduate student training in TPC, expanding for example on the model proposed by Johnson-Eilola & Selber (2001). In addition, other disciplines have developed critical models that can be imported into TPC. For example, the following nine principles from critical pedagogy (Giroux 1991) would seem to be relevant to a more socially conscious form of TPC:

1. Education produces not only knowledge but political subjectivities
2. Ethics is central to education
3. We need to understand difference in how identities are formed and maintained
4. Instead of treating curriculum knowledge as a sacred text we need to understand how different types of knowledge are given priority in schools
5. We should pursue new forms of culture and knowledge
6. Claims to objective knowledge should be challenged
7. A critical pedagogy must include a vision of a better world
8. Teachers need to see themselves as 'transformative intellectuals'
9. Students need a critically conscious 'voice'

Specific ideas

There are many opportunities, it seems to me, for TPC scholars to bring globalization issues into our research and teaching and thus raise consciousness about this important aspect of modern life. Pedagogically, we can make a point of including the global context in classroom discussions wherever it seems appropriate. For example, exercises in audience analysis could take into account an overseas context and audience; traditional cases of the Couture and Goldstein type could be rewritten with an international scope. Second, more ethics cases like those found in Markel (2001) could be developed. These could involve, for example, human rights, environmentalism, labor conditions, etc. Third, we could incorporate more issues of globalization and critical consciousness into graduate student training, using perhaps a methodology like critical discourse analysis (see below) and curricular schemas like that described in Johnson-Eilola & Selber (2001). Fourth, service learning is making inroads into TPC courses (Huckin 1997), including the political consciousness-raising that goes with it. Up to now such efforts have been restricted to local community issues, but if we raised our sights we could have our students doing writing projects for local affiliates of human rights organizations, labor unions, or international environmental organizations in their struggles with the WTO, the World Bank, the IMF, or other such agencies whose

policies many in the Third World see as oppressive.

Finally, we could take advantage of study abroad or international studies programs on campus. The number of US students studying abroad has increased in the past 15 years from 48,000 to 160,000; TPC educators could encourage their students to take advantage of this opportunity. During this same time, the number of international students at US colleges and universities has increased from 350,000 to 550,000. Most of these students are enrolled in technical areas, and they could provide valuable 'insider' information to TPC educators in designing instructional materials. Such measures would help combat the current insularity of TPC education in the United States. As Nancy Hoft writes, "Increasing global cooperation also increases parochialism." (Hoft 1995)

On a scholarly level, there are many opportunities as well. To begin, one could take the ideas proposed by critical TPC theorists such as Miller, D. Sullivan, P. Sullivan & Porter, and Ornatowski (2002), and extend them to the international arena. Secondly, one could draw inspiration from international scholars doing critical studies in TPC-related areas such as Applied Linguistics and English for Science and Technology. For example, scholars Alistair Pennycook and Sarah Benesch have promulgated critical approaches to the fields of applied linguistics and ESL, respectively, that are gaining wide currency in those fields. Third, the fast-growing field of critical discourse analysis could be tapped for use by TPC scholars interested in casting light on the discourse of corporate globalization. Some particularly interesting recent examples of this include Graham's study of the privatization of electrospace in the global economy (Graham 2001), Kelly-Holmes's analysis of marketing discourse in central and eastern Europe (Kelly-Holmes 1998), and Gee, Hull, and Lankshear's pathbreaking 1997 book, *The New Work Order: Behind the Language of the New Capitalism.* There are opportunities, it seems to me, to draw on work in critical rhetoric, cultural studies, and other related fields. A good example of this is Myers' use of actor network theory in talking about the effect of Chernobyl fallout on English sheep growers (Myers 1996). Myers rhetoricizes this situation as follows:

> Rhetoric has always seen audiences in terms of the controlling powers of producers of texts. It is harder for rhetoric to deal with the constructive powers of consumers who may take a text into new contexts, play with it, ironicize it, reproduce it. But it is this sort of active audience that is important in issues like toxic wastes, global warming, Chernobyl, or Heysham. People do not just read and absorb the materials given to them by Nuclear Electric, Greenpeace, or Lancashire Against Nuclear Dumping (LAND). They place these materials in terms of their daily lives, sense of the future, relations of trust, and their often ambivalent responses to environmental change. (21)

In keeping with actor network theory, Myers' comment points to the repercussions that technological events can have on ordinary people beyond national borders. I think if we in TPC were to broaden our horizons and apply this same sensitivity to societies outside the US but still within the orbit of American power, we could gain similar insightfulness and, more importantly, teach our students to do so as well.

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Plenary Panel on New Graduate Programs

Texts and Technology Ph.D. at U. Central Florida

Paul M. Dombrowski — **University of Central Florida**

We are excited about our new Ph.D. program in Texts and Technology (T&T), which has just begun its second year. After describing the program and how it came to be, I will explain two key issues we faced in winning approval for it.

Though the University of Central Florida (UCF) is only about 35 years old, we now have 38,000 students and are still growing. We began as Florida Technological University, to serve the space industry of the Cape Canaveral/Cape Kennedy space coast, so we are technologic to the core. We are situated along the federally-designated High Tech Corridor linking Orlando and Tampa, too. Right next to campus we have a Research Park that did over $1 billion in business last year, housing firms such as Oracle, Siemens, and Lockheed Martin, and a U.S. Army National Simulation Center.

Though our English department had been pushing the program for about six years, the terrain shifted three years ago as we were pulled by the administration and so the proposal moved ahead almost suddenly. The major factor was the desire to attain Carnegie classification as a research extensive institution. The state board of regents had made it clear that they would not endorse a conventional Ph.D. in English; any new program from us had to be involved with new technologies. Ours is now the first Ph.D. in a Humanities area at UCF.

The Program. Texts and Technology (T&T) is a research program for exploring the textual possibilities afforded by digital and other technologies. We will test existing theories and generate knowledge and new theories about how to use, communicate, and create with digital technologies, and we will critically examine the cultural impact of these developments. New theories and new practices are hallmarks of the program. Admission requires a master's degree and the program requires at least 36 credits of coursework. There are three core courses: Theory of T&T, History of T&T, and Research Methods for T&T. Beyond that there is a requirement for 12 credits of restricted electives in our department, and 9 of interdisciplinary electives. Each student is required also to participate in a teaching practicum and professional internship, each one semester long for nine credits. We now have, in our second year, ten full-time students supported with stipends and twelve part-time students.

T&T is interdisciplinary in several ways. We invite applications from any master's field of study and encourage dissertation topics that span disciplines. Already, candidates with master's degrees in computer science, English, psychology, instructional technology, education, and political science are represented in the program, showing its interdisciplinarity. We also have formal support alliances with several other departments (Computer Science, Film, Digital Media, and Psychology), and computer science and digital media professors advise us in program planning.

The Issues. In creating and arguing for the program, we faced two main issues that have broad relevance to the field of technical and scientific communication. As chair of the T&T planning committee, I defended the proposal through all stages of the approval process except through the state board of regents.

Digital Rhetoric at Michigan State University: Designing a Professional Writing Program

Jeffrey T. Grabill Michigan State University

The last two years have been a time of fast and extensive writing program development at Michigan State University. Driven both by energy from the top (the provost) and the bottom (the long-term work of writing faculty fragmented across various departments), Michigan State has developed a new undergraduate major in professional writing, a new master of arts program in digital rhetoric and professional writing, and a new doctoral program in rhetoric and writing. In addition, this new writing program will impact first-year writing and the writing across the curriculum requirement on campus.

I will focus on the undergraduate professional writing major, but it is worth noting the institutional context within which this program has taken shape. One aspect of this context is the fragmented nature of writing instruction on campus. First-year writing, for example, is taught in the American Thought and Language Department (ATL) and in other colleges and departments. Currently, the new writing programs at Michigan State are college programs in the College of Arts and Letters, while most of the faculty associated with these programs are in the ATL Department, a department with a strong history of work in American Studies but without a major. Its current focus, again, is to provide first year writing instruction.

Designing a professional writing program within this context means that the program has connections to issues important in American Studies. The most important of these issues is a strong cultural rhetoric component. One additional strength of American Thought and Language has been its Service Learning Writing Project, which may be the longest running writing project of its kind. The professional writing program that has resulted emphasizes the following issues (see the curriculum at http://www.rhetoric.msu.edu/undergrad/BA_profwriting.pdf):

- Technical writing
- Electronic writing & new media
- Writing & public advocacy (e.g., service learning, risk and health communication)
- Creative non-fiction (for us this means writing about science and nature, not scientific writing yet)
- Cultural rhetorics

I would argue that this is a compelling way to think about professional writing. It allows professional writing to work in more traditional areas such as technical writing, but also allows it to more fully embrace new media. In addition, it articulates a connection between professional writing and civic engagement, public advocacy, and broader issues of science, nature, and culture. The focus on cultural rhetorics in particular hold the promise of articulating even deeper connections between professional communication, race, class, gender, and other issues of identity.

Having said all this, there are a number of questions that we must deal

with on an ongoing basis, questions that may also be a concern of other professional writing programs. Here is a partial list:

- How to continue to articulate meaningful relationships between the various traditions built into this (or any) writing program?
- How to adjust programs once they are in place?
- When multiple writing programs and a department overlap, what administrative models work that maintain the best interests of students, faculty, and program identities?

These are some of the questions that will concern us at Michigan State University as our program design efforts continue through the first few years of running these new—and we think exciting—initiatives.

Communication, Rhetoric, and Digital Media: Challenges in Interdisciplinary Program Design

Carolyn R. Miller North Carolina State University

The doctoral program in Communication, Rhetoric, and Digital Media that we have proposed at North Carolina State University will offer training that integrates the study of oral, written and visual modes of communication within the context of changing technologies and cultural relations. This integrated approach is a necessary response to the transformation of human communication practices that accompanies the evolution of information and communication technologies. The program aims to graduate students qualified for academic positions in departments of English or Communication and in the increasing number of programs that cross departmental boundaries, such as writing and speaking across the curriculum, electronic portfolio development, media studies, online instruction, and technical communication. In nonacademic contexts graduates will be qualified to conduct research, manage development, and analyze policy in the uses and social applications of new communication technologies.

The program proposal was created by a team of faculty from our English Department, representing the areas of rhetoric, composition, and technical communication, and from our Communication Department, representing rhetoric, mass communication, and new media. This work was a response to our dean's request for interdisciplinary doctoral programs to enhance the profile of the College of Humanities and Social Sciences in research and graduate education. New academic programs in the North Carolina state system have to be justified in terms of institutional mission, state needs, non-duplication considerations, and the job market for graduates. These requirements created many constraints on what we could do. We also wanted to take advantage of institutional strengths and resources. And we wanted to create a program that would represent "the next step" in program development nationally.

The program we have proposed is a joint effort of the two departments involved; it builds on a history of prior joint efforts at NC State, more and less successful, including a pilot first-year course in writing and speaking, a campus-wide writing and speaking across-the-curriculum program, many cross-listed courses, and joint programs in journalism and film studies.[γ] Since both English and Communication departments across the country are active both in rhetorical studies and in digital media studies, an alliance that brings their intellectual energies together should strengthen the education we are able to offer students. An additional alliance that will be important to our program is with the recently launched Ph.D. in Information Design in our College of Design.

As we have worked to design the program, prepare the proposal, and

present it to the complex of committees and boards that are involved in the approval process, we have faced a number of issues. Since many of these present problems that are institution-specific, I can describe them in only general terms here. Again, in general terms, they problems have two sources: those that arise because the program is *interdisciplinary*, and those that arise because it is *interdepartmental*.

Interdisciplinary issues

Our faculty committee met frequently over a period of six months to develop a curriculum plan. Even working with faculty in the closely related disciplines and subdisciplines I mentioned above, we found that many of our assumptions differed: about what is basic and what is specialized, about what the organizing framework should be, about how to achieve the interdisciplinary integration we all sought. As curriculum committees at all levels so often do, once we had everyone's "must-include" courses on the table, there was no room left for electives. As faculty frequently do, we all worked inductively from our own doctoral experiences, universalizing the rightness of our own education.

We compromised, we started over, we re-examined our premises, and we finally arrived at a curriculum we could all agree to, though it made nobody totally happy. We consoled ourselves with the thought that curricula always evolve and that our eventual students would help us shake it down and improve the ways it brings together separate but related intellectual and research traditions. It is in the students who study and connect multiple traditions that the true interdisciplinary integration will occur.

Interdepartmental issues

Like many universities these days, NC State officially encourages interdisciplinary research and teaching. At the same time, its traditional organization into academic departments can make such programs difficult to initiate and administer. Departments control budgets, and budgets control administrative structures; departmentalization also influences access to higher administration, fund-raising mechanisms, and planning priorities. While we have not encountered serious problems of these sorts yet, we know that an interdisciplinary program must anticipate them and work to create a funding mechanism and administrative structure that will not leave the program vulnerable to the differing priorities of participating departments and to ever-changing leadership in department and dean's offices.

Another artifact of departmentalization in universities is the familiar phenomenon of turf-protection. Some faculty in our psychology department expressed apprehension that our program aimed to offer students the opportunity to work in the human-computer interaction area, though with the guidance of an enlightened department head, we received an enthusiastic endorsement on the principle that more people working in this area would enlarge rather than restrict opportunities. Similarly, we received some expression of anxiety from the College of Design about our use of the term "design" and have worked to emphasize our different, and complementary, interests in it. Fortunately, the upper administration's commitment to interdisciplinary program development means that we have strong

support for the notion that no department can "own" a term, like design or communication.

A third issue was one we faced while designing the curriculum. How could we graduate students who could be hired by both departments of communication or departments of English? We knew that students would have to be "recognizable" to departments with at least somewhat traditional disciplinary identities at the same time that they brought a non-traditional and forward-looking doctoral experience that, we hope, would be what made them competitive in the academic marketplace. We did not attempt to design a program that would make students equally recognizable to both departments, but we did want to find a way to produce both kinds of students without turning the program into two separate programs, a move that would defeat our commitment to the value of the interdisciplinary enterprise. We therefore built into the curriculum design 12 credit-hours of work in a "home discipline" that would provide a departmental grounding for the otherwise interdisciplinary work. These hours could be in organizational communication, for example, or technical communication.

Issues for technical communication

What can the field of technical and scientific communication gain from the development of a program like this? While technical and scientific communication is not the sole focus of our proposal, this field will play a key role in the interdisciplinary mix and in the market for graduates. Because the field benefits from intellectual diversity, nationally we need programs that specialize in different research traditions and different theoretical frameworks. The field also benefits from cultivating connections with a variety of other disciplines, as it always has—with cognitive psychology, software engineering, rhetorical studies, visual design, organizational communication, and composition studies. The new digital media provide the opportunity and the need for technical and scientific communication to develop a new set of productive interdisciplinary alliances like those our program will promote. On each campus, a somewhat different mix of interdisciplinary connections will be possible, and I believe this diversity will strengthen the field overall and make the current proliferation of programs complementary, rather than competitive.

Note

[§] Some of these programs are described in a joint essay by several of the program planners; the essay also provides a justification for the integrated approach to doctoral education. See Carolyn R. Miller, Victoria Gallagher and Michael Carter, "Integrated Approaches to Teaching Rhetoric: Unifying a Divided House," Realms of Rhetoric, eds. Joseph Pegraglia and Deepika Bahri (Albany, NY: State University of New York Press, in press).

Theory & Practice of Professional Communication: A New Ph.D. Program at Utah State University

Mark Zachry Utah State University

The English department at Utah State University will soon offer a new Ph.D. degree in Theory & Practice of Professional Communication. The proposed degree, which lacks only final approval by the Board of Regents in Utah, has been in development since August 2000. It will be the first doctoral degree offered by the department, and only the second to be offered in the College of Humanities, Arts, and Social Sciences.

The proposed program was developed at the request of upper administration at the university, where the department's success with its existing programs in this area and the strengths of recent faculty hires made such a program feasible. (For a more detailed discussion of this program's evolution, see the *Profession* article by Brooks, Yancey, and Zachry.) With this administrative support, committees and individual faculty members within the department initiated studies that would help shape the decision-making process during proposal development. These studies included a survey of potential students in the Intermountain region to determine how many qualified people might be interested in applying to such a program and what they would be interested in studying upon entrance. An assessment of doctoral program offerings and strengths throughout the Western states provided additional information, as did an examination of Utah State faculty strengths and departmental resources. The results of these and other related investigations such as a study of academic job advertisements and a forthcoming *Technical Communication* article by Cook, Thralls, and Zachry, proved instrumental in our planning discussions about the proposed degree.

Based on the information collected, the department has designed a doctoral degree program that draws on strengths of two of its pre-existing areas, technical communication and English education. Within these areas are 16 specialists in technical communication, organizational communication, rhetoric, composition, classroom instruction, online learning, and linguistics. In addition to the primary courses offered by the new Theory & Practice of Professional Communication faculty, doctoral students will complete significant coursework in a cognate area of their own choosing. These cognate areas are not predefined (students develop them in conjunction with their supervisory committees), but we anticipate that many students will draw heavily on graduate courses in instructional technology, business, and mass communication. Initial conversations with potential students also indicate a widespread interest in doing cognate work in the Folklore and American Studies programs, which have a strong reputation at Utah State. In particular, potential students have discussed research that would combine practice and theory in professional communication with educational opportunities in museum work, field studies, and archival processes.

In earlier versions of the proposal, the program was entitled, “Professional

Communication, Culture, and Technology." Outside the department, however, this name was criticized as being too broad and too far removed from traditional conceptions of what English departments do. Consequently, the name was changed to "Theory & Practice of Professional Communication," and the emphases in culture and technology will instead be described in the planned catalog and advertising descriptions of the program.

Much of the programmatic materials needed to offer this program (e.g., policy and procedure texts, forms) have already been created in anticipation of final approval. State budgetary constraints, however, have led to a freeze on all new program offerings. When the program receives this final approval, it will be formally advertised, and we will begin accepting applications from an existing pool of potential students who have already expressed interest in applying.

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Concurrent Session 1

A: Tech. Comm. & Its Neighbors: Relating English Departments

Exploring Attitudes and Values: Tensions in Interdisciplinary Discourse

Molly K. Johnson University of Houston-Downtown

A few years ago, Dorothy Winsor posted a "Research Wish List," gathered from professional technical writers, to the ATTW listserv. The last item in her list, "Language Barriers," raised an issue that seemed particularly relevant to technical writers in academic settings. Winsor's contributor pointed to the term "discourse communities" as an example of the barriers that language can inadvertently create between academics and "working stiffs," as the person who raised the issue called himself:

> I worked someplace where an entire writing group amused themselves for a week… after a student [intern] asked one of them to identify the discourse communities within the company: "Hey Joe - I need to talk to you and Beth about the XYZ project." "Certainly! But first we must form a discourse community! I'll draw up the by-laws, and you order up a gate and a guard!"

This contributor's experience of academic jargon as a factor that exacerbated tensions between technical writing arenas generated my discussion question: What are the ways language imposes laws and sets up guards within our institutions, our disciplines, and our programs?

Toby Fulwiler alludes to this problem when he discusses "Turf" in the final chapter of *Writing across the Disciplines* (1986), suggesting that English teachers have a certain arrogance about their ability to teach writing, which "raises severe problems in all sorts of directions" (238). What he does not discuss is how that attitude is transmitted and what those other directions might be.

Through close analysis of discourse used by participants in a pilot program linking engineering and writing faculty, I explore the role language plays in transmitting attitudes and reinforcing disciplinary boundaries. Evidence of rhetorical appeals and identification, such as described by Kenneth Burke in *A Rhetoric of Motives* (1950/1969), suggests that the gaps between engineering and English values can be measured by participants' attempts to create solidarity and cohesion. Such gaps between disciplinary values are subtle, but serious *language* and *attitude* problems suggest faculty may be unconsciously alienating the very people with whom faculty and practitioners want to collaborate.

By attending to the details of discourse, my presentation provides insights into the language that creates solidarity as well as division in academic settings. With this understanding of interdisciplinary discourse, we may become more successful in negotiating the underlying tensions within our programs, our institutions, and between academics and "working stiffs." The challenge then becomes: How do we use this insight into professional discourse to prepare technical writing students to more effectively negotiate workplace boundaries?

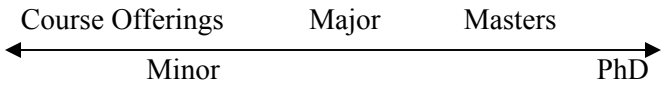
Courses, Credits, and Contact Hours: Clarifying the Role of the Humanities/Technology Binary Along a Continuum of Emphasis in Technical Communication

Michael Knievel University of Wyoming

Technical communication programs and courses often find themselves located within traditionally-framed English departments in colleges and universities around the country. As Mary Sue MacNealy and Leon B. Heaton note in their 1999 *JTWC* article, "Can This Marriage Be Saved: Is An English Department a Good Home For Technical Communication," such placement has been, at once, both a good and bad fit for technical communication students, scholars, and programs.

This ambivalence exists, at least in part, because of a complicated and limiting binary relationship between technology and the humanities, abstractions that give shape to what C.P. Snow named the "Two Cultures" of literature and the humanities and science and technology, respectively. Technology, academic lore holds, is defined in opposition to the humanities and thus English Studies. It is this binary that complicates not only the relationship between technical communication and its disciplinary peers in English but also the technical and professional communication curricula emerging in such a context. The ability to conflate the binary, it seems, becomes the hallmark of good programs.

Indeed, given its purpose as a field devoted to the practical execution of rhetorical principles in both traditional and contemporary media forms, technical communication is ideally suited to challenge Snow's binary model in that it demonstrates it to be untenable by asserting, for instance, the necessity of a complex understanding of both rhetoric and the technological tools that give voice to it. However, I would argue that the influence of this binary takes on greater importance or, at least, visibility, at different points along a continuum of curricular emphasis in technical and professional communication. One way of viewing this continuum puts the English department offering a course or two in technical or professional writing on one end and that department offering a doctoral program on another, with various degrees between:



I am particularly interested here in what happens as we slide down the scale of emphasis from doctoral work to a minor in technical and/or professional communication. While different doctoral programs have very different emphases (cultural studies, rhetoric, electronic writing, usability), their breadth affords them the luxury of coverage. Moreover, these programs are oftentimes either freestanding or located in English departments that are more receptive to binary conflation; in these departments, technical communication can be appreciated as more than a "mere" skill and site of technological aptitude development. Indeed, it seems that good graduate (and undergraduate major programs) *are* good because they are able

to conflate that binary relationship and bring to the fore questions about what makes the relationship between technology and the humanities essential, not optional—they dissolve the binary. Understanding of this relationship is crucial, and understanding can be developed over time in a more robust course of study.

But with debate existing over how the humanities/technology–theory/practice? –binary is represented in graduate programs and undergraduate majors, for instance, how might the limited disciplinary exposure of an undergraduate minor or a sprinkling of technical communication courses in a larger writing or literature curriculum change the dynamic? The left side of the continuum (minors, minimal course offerings) offers but a glimpse of our field and the way it responds to the binary. What should that glimpse look like? The issue is further complicated by the fact that those departments with minimal course offerings or a minor are oftentimes more traditionally humanities-oriented in their emphasis; they exist in a different departmental culture that has not committed itself to teaching technical communication in the same way.

Of the two points on the continuum that I would describe as minimal to modest exposure to technical and professional communication (coursework or a minor), I posit that the freestanding—meaning, there is no major option or graduate program to "trickle down" influence—minor in technical or professional communication is a particularly challenging curricular configuration, a flashpoint of sorts along this continuum of emphasis. And, given that freestanding minors are likely to be found in more traditional English departments, it seems that these minors become critical sites of emphasis—sites where "statements" are made regarding the false binaries between technology and the humanities, theory and practice. A single course or combination of courses can get lost in other departmental offerings—not so much is at stake. A minor, on the other hand, retains a visibility. It is a choice, from a student's perspective, of significance, and it has the heft of a program that must pass through various administrative channels to gain approval. Indeed, I argue that a minor in technical and professional communication might be among the most difficult of all to define in that its range—probably four to seven courses—allows a department to make a statement about what technical and professional communication **is**, unlike a single course that can focus on skills and conventional genres without attracting much scrutiny.

The minor becomes a site in which we must make the most difficult choices, akin to the "if you could take only one possession with you from your burning home, what would you take?" Given the narrow space within which such a program exists in a curricular sense, choices must be made: will the minor be skills based? Theoretically oriented? How will technologies be dealt with? Generally? Or must some specific tools be taught? If so, where and what? And, given the departmental culture that often houses a minor (traditional English), how does one get such courses on the books?

In sum, scholars and teachers in technical communication—more and more typically graduates of programs in writing or specifically in technical communication— must anticipate the complications of moving from such relatively robust curricular spaces into

narrower curricular spaces, such as writing minors, and work together to theorize ideal programmatic experiences for students in those spaces—experiences that provide those students with a rich, albeit condensed, view of the field. This issue will increase in importance as programs in technical and professional communication continue to emerge around the country.

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Developing Technical Communication Degree Options in an Arts and Humanities Setting

Catherine Latterell **Penn State, Altoona**

The arts and humanities context that exists at most small college campuses positions technical and professional communication faculty differently than those faculty who work in larger institutions are positioned. In fact, I would argue that the small college context—with its emphasis on the liberal arts or the humanities—has been a relatively under-examined context for technical and professional communication. Yet, recent tracking of hiring trends in the *MLA Job Listings* indicates that the largest area of growth in tenure-line positions for technical and professional communication is the small college. As a field we need to examine the challenges and stories of faculty working in the small college context in order to promote a more balanced view of the professional circumstances of technical communication academics. We need clearer sense of the ways in which the material conditions of small college faculty differ from the conditions of those working at large institutions. Failure to include and examine the challenges of program development and administration at small colleges may inadvertently imply that these programs have not participated in the progress that has characterized our professional discourse.

Perhaps a major challenge that is unique to working in a small college or arts and humanities context is that of program development and program management. An arts and humanities setting can provide a productive environment for developing professional communication degree options in collaboration with creative writing and arts faculty. As a branch campus of the Pennsylvania State University, Altoona's campus is a 4-year college with approximately 4,000 students. Instead of departments, we are divided into four divisions, and reflective of that structure, the campus cultivates a collaborative, interdisciplinary academic community. Traditional binaries or boundaries that might separate us in another (larger?) context do not serve our interest in developing upper division degree options. My efforts to define a degree option and develop/teach courses such as writing for the web, technical editing, style, report writing have required the active involvement of faculty in creative writing and the visual arts. This work has brought together a number of diverse disciplines that, on a larger campus, would not traditionally be in such close communication. Being small in size and having a shared commitment to humanistic approaches to teaching works in the favor of small college technical and professional communication faculty. Small colleges with strong commitments to liberal arts preparation of students often reward such interdisciplinary collaboration.

Ours/Theirs: Core Content in Technical Communication

Dave Clark University of Wisconsin-Milwaukee

Technical communication is frequently characterized as a field with no core content of its own; this is an ancient rhetorical argument, but one that's still hard to answer to the satisfaction of outsiders. And we've deepened the problem, I suggest, by being cavalier about establishing and articulating disciplinary boundaries, by seeming to claim everything as being within our range of expertise (from grammar to Web design to programming languages) and by failing to defend that stake against academic claim jumpers. After all, we're interdisciplinary; we're hesitant to impose strictures on others that might later be imposed on our own opportunistic tendency to borrow anything we think might help our students. But within our institutions our lack of a core can spell trouble, and it's critical, therefore, that we develop strategies for answering the content question in ways that will allow us to achieve our goals.

Consider our situation at the University of Wisconsin-Milwaukee, where our "Professional Writing" program is housed in the Department of English. Other departments frequently infringe on territory we'd like to claim as our own, thus limiting our possibilities for growth and creating a good deal of in-house competition for student enrollments. UWM students can take Web design, communication ethics, database design, information architecture, rhetoric, and document design courses from 2 or 3 different departments per topic. In addition, our professional writing program is not permitted (by the university) to use the word "Communication" to describe our program to avoid competition and confusion with the Communication department, the Journalism department objects (so far unsuccessfully) to our use of the term "Professional Writing," and the Information Resources school (formerly Library Science) advertises to potential majors that their graduates become technical writers (although they know next to nothing of the profession).

I know from examining programs at other schools that our situation here is not unique. What makes the situation more worrisome is that while certainly some co-option is calculated, departments and programs frequently jump our claims without malice, without even realizing that they're treading on areas we consider to be our own. Not that we could defend our turf anyway, given that we haven't *made* these topics our own by publishing scholarship that talks to other disciplines; our feeble cries for rhetorical savvy don't amount to much when we've only preached that savvy to ourselves. And too often, the courses offered by other departments are, from our perspective, under-theorized and under-rhetoricized, too software-driven and uncritical to be help students get what *we* think they need and therefore not much use as part of an interdisciplinary program. Finally, annoyingly enough, the courses are very popular with students, who don't care where they get the expertise they know they want.

Actions and Reactions: Technical Communication and the Process of Change

Helen Correll Metropolitan State University

Technical communicators are faced with a dilemma. If we come up with an innovative way to implement a new idea or design, we are usually met with resistance. If we come up with a new way of teaching, we are met with resistance. Basically, if we try to implement change, we are met with resistance. Our students encounter the same dilemma. Once they get into the workplace, they are subject to organizational culture that seldom embraces change. So, how do we prepare our students to promote change and innovation while at the same time working within the organizational culture?

I suggest that we need to include within our curriculum some strategies for analyzing and implementing change. Research on implementation of change comes from many areas (anthropology, sociology, and education), but some of the most applicable to technical communication comes from Everett M. Rogers' *Diffusion of Innovations*. Rogers suggests that change starts with an innovator, usually a single individual with a new idea (in our case, a technical communicator). The innovation spreads slowly at first, usually through the work of change agents who adopt it then actively promote it. Eventually, the innovation is adopted by the majority. Obviously, this is not as simple as it might appear.

Change, as noted before, runs into resistance. Technical communicators who are trying to implement a new idea can run into resistance in the form of laggards (those who usually don't like change in general), or reactionaries (those who have a vested interest in keeping things as they are). There are a variety of ways to work through this resistance, which we can discuss, but my main purpose in this panel is to promote the idea that students need to become aware of the process of innovation diffusion. Hall and Hord suggest the following stages of innovation: (0) awareness (little concern or knowledge); (1) informational (interest in learning); (2) personal (questioning the change); (3) management (attention on task); (4) consequence (attention on impact); (5) collaboration (focus on others); (6) refocusing (exploring benefits). These stages don't always appear, nor do they always appear sequentially.

As our students learn about new ways of designing documents, usability testing, and project management, they also need to understand that these new ways and ideas will not be automatically adopted. I suggest that they be made aware of the diffusion of innovation research to make them aware of ways that they can be more effective. In addition to their knowledge of the process of change, I suggest that they make sure the proposed solution they are suggesting will actually be of benefit, that they accept there will be resistance to new ideas, that they allow

time for diffusion, that they polish up their rhetorical skills, that they learn to network with innovators and change agents, and that they keep a sense of humor! Change is frequently seen as threatening, even when the change will ultimately benefit those who resist it. If our students can see the resistance to change as part of a process, they will be ultimately more effective.

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Is There a Place for Technical Communication in the Public Sphere?

Carolyn Rude Texas Tech University

Academic programs in technical communication have, at least in their recent history, emphasized the preparation of students for corporate positions. We claim the ubiquity and relevance of our work to all areas of life, and indeed it is easy enough to find examples of "technical communication" everywhere. But this observation is not the same as observing that there is a role for technical communicators everywhere.

The question of this paper reflects several binaries and tensions: corporate/public, practice/research, undergraduate/graduate, education for jobs/education for life. As director of a multi-level program, I feel Janus-faced trying to meet the interests of students at various levels, given all of these binaries. When a doctoral student proposes a dissertation on a social issue, I am interested, but at the same time, as a frequent member of university hiring committees, I forecast that student at a job interview and wonder if there will be a gap between what the student offers and the needs of the hiring committee she is talking to. Most academic jobs are in undergraduate programs, which, because of the job market, are inherently biased toward corporate positions, practice, and production of documents in various media. Is the specialist in environmental writing prepared to teach online help? And if she does teach environmental writing to undergraduates, will it be with the expectation that her students will seek and find jobs with environmental groups? Even if there is no promise of jobs in the field, should it be OK for programs to offer such a course anyway, for the enrichment of student lives? The idealist says yes, but the realities of budgets and limits in the curriculum may constrain these ideals.

To divorce research and practice, graduate and undergraduate, public and corporate is to disparage and trivialize practice. This is not to say that the research of the field (and the graduate curriculum) must always favor the application of technical communication in corporate spaces nor that graduate students must be constrained by the practical realities of the undergraduate curriculum. Such constraints would limit the relevance of the field and its appeal to smart people and reduce the field to vocational preparation at all levels. But research in critical, public, and social problems will have more impact if it connects to practice, that is, if there is a practical as well as critical role for technical communication in the public sphere, if the polar ends of our binaries are joined in some common ground.

It is easy to claim that what technical communicators know applies in the public sphere and in social service as well as in the corporation. Clearly a number of academics are drawn to inquiries that interrogate policy and discover ambiguities and ideologies in messages. To maintain a productive tension and not an irremediable gap between these possibilities and the practical needs of the

undergraduate classroom, I think we must develop career opportunities in the public sphere, not to displace the corporate opportunities but to complement them. But doing so is harder than saying so, and I invite discussion of ways to insert this field, more than incidentally and anecdotally, in public life.

The White Paper: Prominent in Industry, Neglected in Academia

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The TECHWR-L discussion list is a prominent forum for ideas and trends in the technical communication workplace. Every so often, someone will post a query like this one: "My boss just told me to write a white paper on a certain topic, but I've never written one before. Can anyone tell me what a white paper is?"

Usually, several people on the list will respond to the query. I've observed these three traits among the typical responses: white papers are used to convey technical information within a specific field (computer programming, telecommunications, computer networking, and so on), no two definitions are exactly alike, and most describe the white paper as a type of marketing piece.

Any technical communicator looking for a definition of "white paper" is unlikely to find helpful academic resources. In five recent textbooks for technical communication (Burnett 5/e, Sims 1/e, Lannon 8/e and 9/e, Markel 6/e), the term "white paper" does not even appear in the index. Even in Harner and Zimmerman's new textbook on technical marketing communication, the term appears twice but is neither discussed nor defined. Technical communication (TC) journals do not provide much more information either.

In industry, however, technical communicators can find many resources on white papers. Many technical communication consultants and firms offer to produce white papers. Websites such as ITpapers.com collect and organize electronic white papers that technical communicators can study for subject knowledge and emulate in their own work. The "industry" category also includes government entities engaged in various forms of engineering and research.

In this short essay, I would like to address three things about white papers that I think technical communicators in academia should know: no firm standards for white papers exist, white papers tend to be connected with marketing purposes, and yet white papers are an important genre in the professional world of technical communication.

Lack of firm standards

One reason for the dearth of academic resources for writing white papers might be that the definition of "white paper" is so broad. In the words of writers Gordon and Graham, "There are no rules. There are no standards. But there sure are a lot of white papers to write!" ("Downloads"). No single definition can encompass all that might be labeled a white paper. Elsewhere, Gordon and Graham list some typical purposes that white papers are used to fulfill: a pre-sales tool, a way to explain a complex product or service to a particular audience, an explanation of a design philosophy or concept; they even quote one person who wants white papers to be "all things to all people" ("Art of the White Paper" 3).

White papers can be used for many purposes. Gordon and Graham focus on white papers as tools to differentiate a firm's products or services from those of

competitors. White papers are sometimes used as "position papers," outlining an organization's stance on a particular issue or a technology. King's list, while not exhaustive, provides a helpful summary of common applications:

- **Technology Briefing**. Explains a new or underlying technology that is incorporated into your products.
- **Industry Trend Overview**. Analyzes current market, operational, or technological trends.
- **Application Digest**. Describes potential applications for a product or technology.
- **Planning Guide**. Presents guidelines for implementing a new technology or preparing for future industry changes.
- **Management Discussion**. Describes how technology considerations relate to financial, operational, or other business needs.
- **Issues Analysis**. Describes the nature of an industry issue or controversy, and offers the company's viewpoint or recommendations on how customers might respond. (King 195-97)

In terms of format, again the guidelines are only general. Several sources reflect these ideas from ForWord Communications: "A white paper is a 10-20 page piece whose production values fall between a manual and a brochure. A white paper's modest appearance leads the reader to expect an informational piece" ("White Papers"). Of course, white papers commonly exceed or fall short of 10-20 pages. While many white papers use black type on white paper (or a white background), others will be more colorful. Graphics are common, befitting of texts that are written for explanatory purposes. Many white papers are printed, but more and more are placed on websites in PDF and HTML formats.

White papers and marketing

Another possible reason that academics in TC don't appear to deal with white papers often is that humanists are often reluctant to deal with genres and topics related to marketing and advertising. Henson has shown that some in TC consider marketing inherently deceptive and unethical. Bryan has described challenging ethical issues and pressures he encountered while working as a marketing writer. Many TC professors are trained in the humanities and teach in humanities-oriented departments; this likely discourages some academics from pursuing marketing-related topics in their scholarship and teaching. Marketing is a close cousin of advertising, which rhetorician Lester Faigley has called "the discursive Anti-Christ that does everything the tradition of academic literacy detests…" (189).

As sources such as King, Gordon and Graham ("Art of the White Paper"), and others show, the marketing purposes behind creation of a white paper are often inextricable from the informational purposes. Many white papers are written about products and services that are sold in competitive marketplaces. The need to inform and the need to compete go together. The marketplace can also limit the information that appears in a white paper. As Bruce Byfield pointed out on TECHWR-L, "The major difference [of a

white paper] from an academic paper is that a company will often be more circumspect than a pure research paper, so that competitors don't learn too much" (Byfield).

Gordon and Graham point out that many white papers are begun or requested by marketing personnel; technical communicators are often brought in to contribute to white papers and even to oversee entire white paper projects. In smaller companies, the marketing communication and documentation functions often overlap; this gives technical communicators opportunities to add to their skill sets and their areas of influence.

Viability of white papers for technical communicators in industry

The field of technical communication has long been associated with writing for informational purposes. Along with the other purposes they fulfill, white papers convey information. While this quote is from ITpapers.com, a site containing links to white papers focused on information technology (IT), I think the focus on informational value and uses relating to decision-making applies to white papers of many types:

> "In the IT community, a White Paper is an informational brief offering an overview of a technology, product, issue, standard, policy, or solution - its importance, use and implementation, and business benefits. With the growth of the Internet as a fast and easy vehicle for distribution of information, White Papers have emerged as the standard way of communicating more in-depth information to IT and business decision-makers in terms of problems solved and markets addressed - the key criteria for product selection" ("What's a White Paper?").

ITpapers.com goes on to list the types of papers to which it offers links, many of which closely relate to King's list. These papers clarify outlines on big issues, summarize implications of technological developments, stake out a company's approach to an issue, and educate technology readers. The website for Sandia National Laboratories, for example, contains links to white papers that fulfill many of these same functions.

And yet, the promotional aspect of a white paper continues to coincide with the informational. ITpapers.com states that it does not list "purely promotional documents" ("What's a White Paper?"), but implies that white papers without any promotional elements are few and far between. In some instances, white papers contain instructional information that one would expect to find in a traditional how-to manual. Perhaps this is a result from the shift away from printed documentation and toward information in electronic form.

Possibilities for future Inquiry

Killingsworth and Gilbertson write that "Genre, in the simplest sense of the word, then, means a *kind* of writing recognized as distinctive by writers and readers" (78). They identify three modes of technical communication (promotional, operational, and reportorial) and genres that correspond to these modes (proposals, manuals, and reports, respectively). While this list of genres and modes is not exhaustive, it is clear that white papers do not fit neatly into any particular, distinct category.

Industry recognizes the white paper as a genre, albeit a loose one; the

academic TC community has not yet done so. Because white papers are frequently written by practitioners and used in a variety of decision-making contexts, academics should give them more attention. Future investigation of white papers by academics will help strengthen the relationship between industry and the academy.

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Pedagogy, Praxis and Proliferation: Technical Communicators as Information Architects

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Proliferating uses of the World Wide Web have led to a proliferation of need for professionals who not only understand new uses of digital technology but also the rhetorical situations (and opportunities) represented by these technologies. As the information available online multiplies, indeed, as it continues to grow exponentially, the need for organization, cataloguing and searching grows as well. One emerging title for the professional responsible for organization of web content is "information architect." Proponents of information architecture do not often include technical communicators among those professionals suited for the role. However, the rhetorical training of technical communicators make them uniquely qualified to organize, categorize, label and develop organizational strategies for the web. Indeed, as web sites and the content on those sites multiplies, there is an increasing need for the rhetorical skills technical communicators possess. As online information increases, the ability to sift, prioritize, chunk, label and design text and other media is an increasingly valued skill, a skill that technical communicators can bring to the role of information architect.

Rather than argue that technical communication should or ought to be somehow reconfigured to become information architecture (a position that will result in both professional confusion and a loss of the unique rhetorical focus of technical communication education), my position offers pedagogical justification for exploring information architecture. Programs in information architecture, under a variety of titles, are appearing in a variety of institutions and departments ranging from Architecture, Communication, Library Science, to schools of Management, Engineering programs to English departments and Rhetoric and Writing programs. Like the variety of definitions of technical communication that are informed by their institutional homes and histories, information architecture is defined differently depending upon its institutional and departmental placement. Rather than assert that technical communication should become information architecture, I am interested in those characteristics of information architecture that help technical communicators better define their rhetorical and professional roles.

The WWW is remade with each new networked application: browsers, peer-to-peer file-sharing, instant messaging, video conferencing. Joining this technology are the ubiquitous rings of cell phones, ever-shrinking digital assistants, and multi-function devices that promise (or threaten) to put an office in your pocket. These technologies require the expertise of information designers capable of leading teams who will build information structures designed to make vast amounts of information navigable. No one person will be able to do the work him- or

her-self, just as no one field's expertise will be able to meet every technological and communication challenge. While many players will participate in the creation of information architecture, there are compelling reasons for technical communicators to take a class specifically addressing the rhetorical issues surrounding information architecture.

The proliferation of information on the web and in portable devices challenges technical communication to update curriculum and theory for the information age while it opens opportunities to explore new fields of inquiry like information architecture. The role of information architecture in the training of future technical communicators and new definitions of technical communication itself is not yet known, and are certainly far beyond the grasp of this position paper. However, exploring new contexts for the practice of rhetoric, like the emerging field of information architecture, contributes to the critical rhetorical education of technical communicators. It is precisely because the future configuration of technical communication is as yet unknown that it becomes increasingly important to experiment with possibilities and contingent configurations: the experiments undertaken now to define technical communication will contribute to future definitions both of the field and of its curricula.

Acting too modestly will encourage further essentialization and functionalization of technical communication as instrumental discourse. But acting too aggressively and claiming information architecture and other emerging fields as domains of technical communication are equally risky strategies, giving the impression that rhetoric seeks to colonize territory developed by other fields of intellectual inquiry. The goal then is to balance the potential fruits of exploration with the problems of colonization, to act cautiously but with great intellectual curiosity. My conclusion shares similarities with Robert Johnson's essay exploring the costs and responsibilities of interdisciplinary study (1998) in which he warns that there are responsibilities to contextualize intellectual insights. However, my position is concerned not only with the practice of scholarship, with analysis, but with building pedagogies and curricula for technical communication. These new pedagogies encourage students to be effective agents in the creation and design of technologies, to apply analysis toward establishing praxis for effective communication on the web and in the larger culture emerging in the age of information..

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The Need for Architect/Construction Worker Dichotomies in Information Architecture as a Profession

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In the late 1980s and early 1990s, computer programming matured from its early process (the innovative work of creative individuals) to its present process, software development, a collaborative process using sophisticated tools to permit multiple software developers to collaborate, each working on aspects of the task at hand. The tools created for this work, called Integrated Development Environments (or IDEs), permit a single large document (such as the source code of a computer application) to be made up of smaller sections (called subroutines), each of which can be checked out by individuals who might each work on various parts of the project simultaneously. Such IDEs allow contemporary software development to employ project management and longer-term coordination than had been possible in the past.

There are several reasons why this occurred: one was the danger that existed in a single programmer being the sole person who truly understood how important code actually functioned. Developers at Microsoft discuss this as "the bus problem"—what would happen should the most important person on a project be unexpectedly hit by a bus? But from U.S. employers' perspectives, there were other but similar issues: if a single programmer were to become _essential_ to a project, he or she could demand a higher salary, or could cripple a project by leaving the company, or could take valuable strategic knowledge to another firm, should he or she decide to leave. From a corporate perspective, software development would be more rational should it be directed by a project manager—someone who might or might not have development experience, but be skilled in traditional management function. And this manager would then have a staff of developers, whose tasks would be work on components of a larger system, without any being irreplaceable to the overall product.

This would also allow the development of hierarchies within programming, between higher-level and lower-level developers on projects. Higher-level developers could work on "big picture" issues within software development, while common programming tasks could be delegated to younger, less highly salaries employees.

Thomas Kuhn suggested in his 1962 book _The Structure of Scientific Revolutions_ that what determined the success of any new paradigm was that it enabled increased differentiation of roles and more specific forms of knowledge within a field—in short, more jobs, with more areas of specific expertise. And this has certainly occurred within software development.

This is important to technical communicators because while information architecture in the 1990s permitted valuable information developers to attain 'irreplaceable' status within organizations, contemporary systems of information architecture seem

to be following the software development IDE model. Contemporary content management and knowledge management systems by Astarte and Adobe, in fact, seem to be modeled quite closely on several leading IDE packages.

This paper will suggest that a traditional dichotomy within the field of technical communication—that which differentiates our "practitioners" from our "professionals"—lends certain ease to our adoption of this model.

Academic programs in technical communication, seeking to identify ourselves with professional status, might seek to teach our students (particularly our graduate students) to serve as "information architects"—the project management roles in online document design. Read, for instance, the conclusion of Corey Wick's article "Knowledge Management and Leadership Opportunities for Technical Communicators" from November 2000 in *Technical Communication:*

> Knowledge management also represents an exceptional opportunity to end the oversight that has historically challenged our profession.... Leadership in knowledge management belongs to us as much as to people of any other discipline. But to claim that leadership role, we must carefully re-think how we conceive of and present our value to the organizations we serve. And we must work to expand that value by broadening our technological knowledge base to make us more viable as leaders in an increasingly electronic world. (Wick 2000)

Other authors, such as Edmond Weiss, agree, suggesting that such systems make possible "professional" status for workers in technical communication. Weiss generalizes from a narrative he tells about the 20th century professionalization of engineering, that such instrumentalization will lead to greater quality and better status for all within the field (Weiss forthcoming, 2002).

I would suggest that before we adopt such a model and concede the construction worker (role of "other") to many members of our field in order to negotiate management positions for a few, that we look to other professions to see how they have resisted this dichotomy. It may be argued, perhaps, that professions such as medicine and the law have managed to avoid successfully such hierarchical dichotomies—at least in part. At the least, we should debate the possible implications of such systems more rigorously than we have to date.

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Open Source Practices and Technical Communication Programs

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Open Source Software (OSS) has received increased attention in recent years (Berglund & Priestley 2001) with the technological success of projects like the Linux operating system, the Apache Web server, the Perl programming language, and the release of Netscape's source code for Mozilla (an open source Web browser). Open source products and business models (Red Hat Linux, Zope CMS, for example) have even been reported widely in the business press (Ante 2001; Biggs 2001) though a good deal of this attention has been paid to the competition between OSS and proprietary software (Gomes 2001; Flynn 2001; Moody 2002).

In this presentation, we argue that OSS represents two key opportunities for technical communication programs (and, indeed, the discipline as a whole). First, at a general level, OSS provides a transition away from commodified information that has plagued technical communication as a low-status field for several decades. Second, at a more concrete level, OSS can provide a shared, collaborative framework for developing curricular materials that can be more easily moved from class to class and school to school.

Beyond commodified information

Late capitalist approaches to software development and use structure information as a commodity, something bought and sold in global markets. Although we don't often comment on or consider the implications of this fact, when we purchase a computer program, we reiterate a process in which the communication inherent in a computer program (online help, printed manuals, interface elements) is devalued. Although we teach communication as an active, ongoing process, commodified information structures communication as relatively anonymous receipt of massified, discrete, and proprietary pieces of information. In other words, although we insist to ourselves and our students that communication is a rich, messy, interactive process, the commodified forms inherent in commercial software documentation and interfaces say that communications are discrete, fragmented, and isolated objects that can be purchased on the open market like beads or automobile tires.

Open source software, on the other hand, represents a different model for valuing information. Although OSS can be sold in some cases, its primary model encourages people to think of information as communal, co-developed, localized spaces for ongoing work. By breaking the automatic connection between information and monetary exchange, communication can be restructured in useful ways. This shift has potential implications for technical communication's efforts to place importance on a more complex model of communication and technology use, one that values communication as a participatory, communal activity. Technical communication has the opportunity to leverage this new

understanding to affect how both users and developers think of our field, making it central rather than peripheral to their work.

A framework for sharing course materials

In a related way, at a more concrete level, OSS also offers a framework for overcoming a persistent problem in creating a global learning community. Although most technical communication teachers freely share resources with each other (on websites, over email and discussions lists, in journal articles and conference presentations), we are often impeded by structural and logistical issues: One teacher develops materials in Microsoft Word, another uses Blackboard, a third uses a combination of mass produced textbook and PowerPoint slides. The structural differences among these different resource formats impede our efforts to develop a learning community.

In an attempt to provide the starting points for a shared framework for learning communities, we've begun development of an OSS platform called Crateware (*Crateware*). Based on an OSS content management system called "Zope" (Zope Corporation 2003), Crateware includes classes of standard learning modules that can be shared among different courses (and institutions). While instructors having the ability to simply use modules that others have developed, they also have the ability to design and share new modules with the Crateware community. For example, Crateware includes short, relatively conventional lessons on writing different types of documents (memoranda, email, etc.) that covers both formatting and rhetorical topics. These modules can be referenced by project (real-world projects or fictional cases). In general content, Crateware modules are similar to things that most of us already develop for our own courses. At a broader level, though, the shared framework of Crateware allows instructors at different institutions and in different courses to more easily exchange materials. Because OSS encourages both transformation and republication of resources, Crateware helps to break down the distinction between "textbook" and "syllabus" (or other course materials). Instructors have simple, web-based tools for modifying existing modules, ranging from the ability to change the title of an assignment to use local terminology to developing completely new interactive tools for online discussion. The OSS model, because it goes beyond commodified information and requires users and developers to become a part of a community, provides a much broader and richer environment for learning.

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Concurrent Section 2

A. Tech Comm. & Its Neighbors: Relating to Technology

'We look forward and back, and pine…' Can this Relationship Be Saved?

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The English department at Utah State University will soon offer a new Ph.D. degree in Theory & Practice of Professional Communication. The proposed degree, which lacks only final approval by the Board of Regents in Utah, has been in development since August 2000. It will be the first doctoral degree offered by the department, and only the second to be offered in the College of Humanities, Arts, and Social Sciences.

The proposed program was developed at the request of upper administration at the university, where the department's success with its existing programs in this area and the strengths of recent faculty hires made such a program feasible. (For a more detailed discussion of this program's evolution, see the *Profession* article by Brooks, Yancey, and Zachry.) With this administrative support, committees and individual faculty members within the department initiated studies that would help shape the decision-making process during proposal development. These studies included a survey of potential students in the Intermountain region to determine how many qualified people might be interested in applying to such a program and what they would be interested in studying upon entrance. An assessment of doctoral program offerings and strengths throughout the Western states provided additional information, as did an examination of Utah State faculty strengths and departmental resources. The results of these and other related investigations such as a study of academic job advertisements and a forthcoming *Technical Communication* article by Cook, Thralls, and Zachry, proved instrumental in our planning discussions about the proposed degree.

Based on the information collected, the department has designed a doctoral degree program that draws on strengths of two of its pre-existing areas, technical communication and English education. Within these areas are 16 specialists in technical communication, organizational communication, rhetoric, composition, classroom instruction, online learning, and linguistics. In addition to the primary courses offered by the new Theory & Practice of Professional Communication faculty, doctoral students will complete significant coursework in a cognate area of their own choosing. These cognate areas are not predefined (students develop them in conjunction with their supervisory committees), but we anticipate that many students will draw heavily on graduate courses in instructional technology, business, and mass communication. Initial conversations with potential students also indicate a widespread interest in doing cognate work in the Folklore and American Studies programs, which have a strong reputation at Utah State. In particular, potential students have discussed research that would combine practice and theory in professional communication with educational

opportunities in museum work, field studies, and archival processes.

In earlier versions of the proposal, the program was entitled, "Professional Communication, Culture, and Technology." Outside the department, however, this name was criticized as being too broad and too far removed from traditional conceptions of what English departments do. Consequently, the name was changed to "Theory & Practice of Professional Communication," and the emphases in culture and technology will instead be described in the planned catalog and advertising descriptions of the program.

Much of the programmatic materials needed to offer this program (e.g., policy and procedure texts, forms) have already been created in anticipation of final approval. State budgetary constraints, however, have led to a freeze on all new program offerings. When the program receives this final approval, it will be formally advertised, and we will begin accepting applications from an existing pool of potential students who have already expressed interest in applying.

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'We Look Before and After, and Pine' Part II: How Do We Negotiate Our Differences, and Should We?

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As Harrison Carpenter has pointed out, a central concern for the technical/scientific/professional communication field is the existence of an uneasy relationship with rhetoric and composition. Particular difficulty lies in there being several distinctly different points-of-view not only about where the field is gong, but also where it has been. If one views Tech Comm as an outgrowth of the process movement in composition—perhaps burnished by association with rhetorical studies—one likely possesses a set of assumptions about continuation of a rather genteel tradition of critical inquiry and expressive discourse as characteristic and proper activities. If, on the other hand, one considers Tech Comm to be an outgrowth of post-World War II society, with characteristic and perhaps not-so-proper features determined by pragmatic response to an increasingly technologized society, a different set of assumptions emphasizing problem-solving skills and an orientation toward representational discourse holds sway. Do these two highly differentiated viewpoints have a chance to meet in some well-chaperoned middle? Or should they even consider dating?

Whether one considers these sources polarities or next-of-kin, they already form an uneasy alliance in English Departments across the country. In our existing Tech Comm programs, we often mirror the early efforts of Writing-Across-the-Curriculum pioneers, at the same time as we espouse increasing interdisciplinarity and expand our scholarly interests from WAC to WID to Genre Studies to Activity Theory and beyond. We are already negotiating a highly tricky passage; it is in our best interests to pause to ask not "do we want to do this?" but to consider both how and why to select the baggage that will help us complete the voyage rather than weighing us down.

The best example I know of comes from current thinking about assessment in Tech Comm. In the "bad old days," the remnants of logical positivism held us in thrall to a range of measurement conventions that were finally questioned and dissolved by composition's development of, first, holistic evaluation procedures, and, then, portfolio practices that at least acknowledge cultural concerns and situatedness. Yes, there is an ongoing tendency to stay tied to trait description as a means of validation from the fundamentally interpretative point-of-view that has been borrowed from our Arts beginnings. But, as our interdisciplinarity increases, we can look back to our history to recognize that methodological insistence is baggage we don't need. From one part of our history we have acquired the ability to accommodate varied disciplinary viewpoints; from the other, we have retained the onus to critique it as we use it. By understanding our history even as we replace it with what is germane for just this time and in just this place, we

understand our practices, and our assessment of them, as moving beyond the statement of goals and criteria to the complex investigation of outcomes and consequences.

The questions in the title of this paper are, then, multiply implicated: "difference" is an inescapable characteristic realized daily in the interdisciplinarity of Tech Comm practice. "Negotiation" is equally a fixture of success in that practice. In the end, the challenge is not to decide if we should negotiate differences within, and without, our programs, but to look to our history with the already-established practice and to be as aware of our history as we are of our prospects.

Lessons Learned While Looking Both Ways: A Work-in-Process Review of Cincinnati State's Multimedia Information Design Programs

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In Fall 2000, the Technical Writing & Editing degree at Cincinnati State Technical and Community College, generally regarded as a model for associate degree technical communication programs, was abolished. The program that had lived for 15 years in the Humanities Division, attracting about 25 students a year, was put to rest, and a new program was established within the College's brand new Information Technologies Division, in a brand new department titled Multimedia Information Design. The new configuration provided students with four choices, each leading to a separate associate of applied science degree: Audio/Video Production, Computer Graphics, Technical Communication, and Web Design.

Initially, two faculty members were charged with developing and implementing the new programs. One had a background in technical communication, the other in business computer programming. From the outset, the faculty members agreed (in principle, at least) that the four Multimedia degrees should address the traditional arts as well as the high-tech sciences, should provide students with opportunities to explore theory (especially theory concerning audience assessment and product usability assessment) as well as to gain plenty of hands-on practice, and should, whenever possible, encourage students to engage in experiences outside their typical individual comfort zones and instead bring them into the same sorts of multidisciplinary teams that we expect them to be part of when they join "real" project teams.

Two years later, Cincinnati State's Multimedia Information Design programs have about 500 enrolled students, we have started to provide the community with graduates (and the community is responding with cooperative education placements and even some permanent jobs), we have an expanded full-time faculty (and, as is unfortunately the norm, an even more expanded part-time faculty), and we have learned a great deal about the ease and the difficulty of meeting our original goals.

This presentation will review (very briefly) briefly some of the key discoveries and the critical points of contention encountered during the first full implementation cycle for the reconfigured and expanded programs. Topics to be addressed include recruiting and mentoring faculty, developing course and program curricula, gaining institutional support (both material and psychological) for the new initiatives, and promoting "team-oriented" values among faculty and students.

Complicating Tensions and Reproducing Culture: Searching for Models in Technical and Scientific Communication

Carroll Ferguson Nardone Sam Houston State University

In building or refining programs of technical and scientific communication, departments wisely look toward already existing programs to explore ways to structure or ways to refocus instruction. Developers also wisely look at industry to find what they require so that program outcomes can be directly linked with industry needs. This notion of modeling is valued in most pedagogical circles and is not being discounted here. A lot can be said for tweaking the wheel to fit a new context, rather than reinventing it. The role research plays in defining our field must not be discounted, either. As Debs suggests, "When we write research, we create ourselves" (238).

However, as we sift among the variety of institutional programs to find courses, research, and ideas that we can use for our own building processes, we have to be aware that by accepting already proven methods, we might be stunting our own progress. By accepting what has come before, what has been successful in another context, and what by nature is constrained by the culture which creates it, we run the risk of allowing a dominant culture, whether useful or not, to supercede the rhetorical needs of both our programs and our students. More important, these dominant paradigms can mask the needs of business and industry. Thus, we must examine the rhetoric of our own development methods and understand the tensions they create (Debs 252).

Postmodern influences

Knowledge in a professional setting is socially constructed, most of it in conjunction with some form of written communication. Through the various genres of workplace writing, business and industry continually change to mold a culture that is consistently in a state of flux. In our attempts to teach our students to be successful in professional careers we cannot recreate the world for them. We can attempt to recreate writing situations that mimic those they will find in their professions, but the reality is that no matter how closely our attempts mirror our perceptions of a non-academic setting, we are still placing that attempt within the academic setting. One way to get around this is through internships, but even in that context, the institutional constraints still outweigh many of the professional job site constraints that affect students' behaviors and performances.

Why this is of such importance to both our discipline and our students is that many of the jobs our students will be doing, and the technology that they will be using, have not even been invented yet. To focus our programs on current technology and current practices, both academic and non-academic, is to condemn our students to skills that will be obsolete and conceivably unmarketable in a few years. What we can do is to teach students to think critically, so that they can adjust their skills for the creation of new knowledge and ways of doing. All this sounds fine,

except when it comes down to the pragmatic. How can we create programs in technical and scientific communication that do not re-create the current dominant culture and that do not condemn our students to preconceived and most probably ill-conceived notions of what their writing careers will entail?

Kuhn's contribution

One way is to look at the postmodern influence and to begin finding ways into theorizing how we might construct our programs that allow for the diverse, poly-vocal, interdisciplinary world we live. Kuhn's notion of "normal science" can help with this exploration. As he explains, research proceeds according to the elaboration and characterization from which a usual verbalization is derived. For example, current physics textbooks teach "student[s] that light is photons—quantum-mechanical entities that exhibit some characteristics of waves and some of particles." But as he points out, this "characterization of light is...scarcely half a century old. Before it was developed...physics texts taught that light was a transverse wave motion" (12). This conception was rooted from a paradigm derived mainly from the 19th century. And before that, it was taught that light was material corpuscles. Each of these schools of thought derived itself from its relation to some particular metaphysic and each emphasized the particular cluster of optical phenomena that its own theory could do most to explain (13). What this doesn't allow for, however, is the notion that all or none of them may actually be useful.

This notion of normal science is fitting for our discussion because we can use the analogy of our programs to that of the textbooks that normalize our concept of what technical communication is and how they help us to train our students to function in the workplace. A core curriculum with core competencies would serve such a normalizing function. As Elizabeth Tebeaux argues, however, "academics seem more concerned with describing past and current communication practices and trying to theorize a paradigm for these issues than with predicting future communication environments and determining the best communication solutions for those problems" (44). She suggests using the workplace as a point of departure to help ensure the relevance of the research (44). Through her ideas for an integrated research to pedagogy process, she hopes that knowledge gained will "prepare our students for immediate nonacademic demands as well as the probable demands of the future" (52). I'd like to heed her call for relevant teaching and research, and perhaps this is the point to start, but we have to ask ourselves, what workplaces and with what effect?

"When we write research, we create ourselves"

Mary Beth Debs believes that we may choose the role we want to play and through her investigation of research practices in related fields, she suggests that we challenge ourselves through dialectic to open forums for debate. What we need to guide our choices is a "self-conscious reflection" to the consequences (252). Through this process, we could then create for ourselves and our individual institutions, professional writing programs that are geared toward our individual student populations and those workplace situations we are most familiar with, either by geography or product. As a result, we would have a condition that privileges the local and not the global. As

Geertz argues, since all knowledge is local knowledge, this would suggest that our programs could be shaped by the specific culture that generates and believes it. Would these local narratives be any less totalizing than the global narratives?

Perhaps the way to answer these questions is to adapt a Trimbur's method of dissensus used in collaborative learning situations (quoted by Herndl). This rhetoric of dissensus would allow us to explore where programs differ, where those differences are manifested, and why they manifest as they do. Through research that looks at the discourse communities of unrelated fields such as the biological sciences, the computer sciences, and engineering fields, we can begin to find those differences and use them to build a new discourse—one that takes the differences into consideration and that extols the differences while also finding points of similarity that can be exploited into our pedagogy. Research that supports this exploration of the relationships between specific discourses can go a long way to help us provide a language for our students that will not just mimic the status quo, but will allow for us to challenge our students to analyze their own situations and continue to learn even as they enter those professions with specific job tasks not yet evident to those of us working to prepare them.

We can create ourselves and our programs, but it must not be through simple modeling—it must involve an integration of ostensibly disparate workplace discourses. Only through these efforts can we assume that we are truly recognizing the differences in workplace cultures and teaching our students the nuances about these differences so that when they seek to enter the field, they will have the tools they need to analyze the rhetoric and respond accordingly. Therefore, rather than looking to an industry to model pedagogy, we must look to all industry to create a pedagogy.

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Thinking Global: If "International" Means English, What does "Intercultural" Mean?

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The push/pull of the global market place is changing the agenda for communications in technical disciplines. Even deep in the Midwest, where engineering "gear heads" have been accustomed to finding safe havens in automotive and other legacy manufacturing operations, global markets are changing the way industry organizes both production and design. The way we develop our technical communications programs, in the Midwest and elsewhere, will be challenged and complicated by the global initiatives now underway.

The complexity of that global challenge is disguised by the pervasive use of English on the Internet and within corporate communications originating in North America. The recent merger of Daimler-Benz and Chrysler provides an important new case history of the underestimation of the communications difficulties to be expected when cultural differences are discounted because "everyone speaks English." As professionals in technical communications, we must prepare to develop programs that address the problem of negotiating the unspoken boundaries between cultures.

I would like to identify three complications for program design that are now emerging for one specific new program, an alliance between Purdue University and the Universität Karlsruhe in Germany. The program centers on providing global design experience to undergraduate mechanical engineers, a concept perhaps best known in automotive circles as exemplified in the Ford Motor Company "world car," the platform designed via collaboration across five design sites for the purpose of engineering a product that could be manufactured and marketed around the world.

The three complications to be described are the binaries:
(1) local/global, (2) process/product, and (3) personal/professional. We are attempting to bridge two local contexts for the purpose of addressing global issues about the process of product design, working with a cultural immersion approach to gaining professional skills through personal experience. "Intercultural" transactions will be necessarily personal yet will be validated through technical project collaborations.

Program development for the Purdue/Karlsruhe communications program is itself a product of collaboration, the work of an international and cross-disciplinary team, including German language faculty, mechanical engineering faculty, and technical communications professionals. The complications I will address are drawn from our planning and development work over the past six months.

"Learning to Write / Writing to Learn": Considering the Limits of a Pedagogical Binary in Science and Engineering Communication in the Disciplines

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Technical Communication Programs often help colleagues in the disciplines by identifying two purposes for communication assignments: "writing to learn" and "learning to write." This binary has several advantages: faculty grasp the distinctions fairly easily; the two purposes, respectively, seem congruent with the aims of introductory courses and capstone or design courses; and the distinction helps justify differences in grading criteria. The categories also sidestep the objections that all writing assignments are only given "to teach writing" and that faculty in other disciplines are not prepared "to teach writing." We say, in effect, "See how easy this is? You can do it." However, these classifications also can sabotage the status of leaders in writing across the curriculum and reinforce notions that only "content" matters. By recognizing the unintended consequences of our persuasive strategies, technical communication programs can address their educational as well as political effects.

In technical and scientific communication programs "writing to learn" assignments include such things as defining concepts, summarizing chapters or lectures, or explaining processes. Short exercises such as one minute essays, in-class responses, and concept maps fall into this category, as do some posters, lab reports, and essay-style test questions. "Learning to write/communicate" assignments are more likely to occur in senior design or capstone courses. There, students produce proposals, reports on design projects, or feasibility students for fictional and sometimes actual clients. Although these categories have been highly acceptable to colleagues in other disciplines, they should be framed in a context of rhetorical research as well as disciplinary conventions. At the extremes, these oppositions tend to reify scientific meaning as acontextual in the case of writing to learn and as formulaic in fictionalized settings of learning to write.

Writing to learn

Writing to learn assignments can allow students to devote their energies to expressing content without addressing constraints of genre, audience, and style. Freedom from these constraints can yield more processing power for grappling with complex intellectual tasks. However, when the professor is the only audience, the activity may re-emphasize science as knowledge that is only school knowledge, separate from a context in which people have vested interests in answers. When style and audience don't matter, only the correctness of the calculation or the technical aspects of the subject may be marked or commented on. The student's sense of constructing knowledge purposefully may be diminished.

Learning to write

Assignments that add a fictional setting, a corporate audience, and a genre such as a design report, proposal, or feasibility study can help students

anticipate how their knowledge will be used in industry or other settings. However, too often, students receive no instruction in the writing or speaking activity, just an assignment to "do it." When the assignment involves audiences students know little about, such as a president, high level managers, or project managers for a plant to be built in China or another country, students may rely on stereotypes or ignore audience needs altogether. Students may lack knowledge of constraints that writers rely on in industry for a host of significant decisions, such as knowledge of corporate culture, larger processes of business organizations, the relation to other types of documents, and a background of communication practices in the organization. In such situations the students take report conventions and subject matter/content allocation rigidly and miss the persuasive elements that might well determine success or failure in the workplace. Discussions may be organized in an academic fashion, delaying "bottom-line" issues until the end. The result is performance that doesn't mimic real situations and students don't learn how to organize to meet the expectations of actual audiences or adapt to the variations that result from international, multicultural, or complex audiences.

Giving some attention to audience and genre in writing to learn as well as paying attention to the process of adapting content to genres and multicultural audiences can help avoid a disjunction in instructors' expectations and a serious shift in grading criteria as students move from introductory to advanced courses. Seeing assignments in relation to a matrix of assignment features and evaluation criteria can ensure better integrated sequences of technical communication instruction.

Indeed, if format, conventions of documentation, and topic allocation are all students gain in a "learning to write" assignment, then what does the WAC scholar know that is valuable? The assignment binary works to make rhetoricians' expertise invisible. Most of the prestigious universities that have recently (last five years) decided they must "do something" about writing and communication have chosen to staff programs with untenured people and have hired the leaders as administrators, not as researchers. A few--Harvard, Duke, Stanford--have hired one distinguished scholar to lead their university-wide programs, but the main workforce is a flock of untenured, term-contract instructors who gain no advantage by publishing or doing research. Many work for salaries of $30k to 40k. Without having time for scholarship, these instructors cannot be up to date on technologies, visual design, intercultural communication, negotiation, and other changes in communication that result from globalization and communication technologies. Students will not be as prepared as they need to be when they enter the workforce. Everyone loses. We need to examine the effects of persuasive binaries that conceal the work of scholars in rhetoric. We must make visible the rhetorical expertise that can infuse both types of assignments with crucial relevance.

A Call for a Prax-ical Undergraduate Major Curricular Framework

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At an accelerated pace, the broad field of professional writing is seeing growth in the development of undergraduate major programs. With purposes distinct from service, certificate, minor, and graduate programs (because they focus on building full disciplinary educational experiences for an undergraduate population), creating curricula for undergraduate majors poses many new challenges for the field.

One such challenge lies in locating the best curricular frameworks. Faculty looking for such frameworks can quickly find a variety, spanning from the dominant (e.g., genre-driven, media-driven, and professional context-driven) to the haphazard (e.g., driven by disconnected faculty interests or a set of disconnected "popular" courses) to the innovative (e.g., Johnson-Eilola and Selber's recent TCQ article).

One framework that often dominates, either directly or indirectly, is constructed around the theory/practice binary. The binary is evident, often, in curricular requirements, wherein students are directed to take a certain number of theory and practice courses–the case at my university, in fact. A great number of programs also encourage or require internships and include client projects in their courses–also the case at my university. Because both internships and client- based projects are typically conceived as opportunities to practice applying theories and strategies learned in prior courses, these kinds of experiences also reflect a theory/practice binary within professional writing.

Within the scope of pedagogy, the field has long challenged the theory/practice binary, but I want to propose that we pursue ways of challenging this binary at the curricular level. More specifically, I propose that we work to develop curricular frameworks based on one of the following related terms: praxis, reflection-in-action, or theorizing. Hocks, Sanders Lopez, and Grabill in "Praxis and Institutional Architecture" have described how we can approach curricular development as a form of praxis, and though I recommend their article, their argument is not the one I am forwarding here. Rather than focusing on the process of curricular design, I argue we must imagine professional writing curricular frameworks that are constructed around praxis rather than the theory/practice binary if we are to graduate students and develop industry colleagues who understand professional writing as more than the application of theories to practice; if we are to re-create professional writing as a form of critically reflective social practice; and if we are to elevate the value of professional writing/professional writers within and outside academia.

Instead of arguing that our curricula develop well disciplined students knowledgeable of theories and capable of good practice, I am arguing that our curricula develop students who are effective professional writing theorists,

"prax-itioners." Weiser and Rose argue that theorizing involves several abilities, the ability to develop theory, to decide that one needs to apply or develop a theory, to apply theory within particular contexts, and to reflect upon actions to which the application of theory may lead. ("Theorizing Writing Program Theorizing") Perhaps these varying abilities point to a curricular sequence? Even though our separate courses may develop these abilities, perhaps even in a conscious and planned way, I still assert that we must pursue a curricular framework that forefronts a praxis orientation. Especially in the rapidly changing organizational, cultural, and technological contexts in which we write/act, perhaps the most important work we can do is teach our students how to build and reflect on situated theories of rhetorical action..

Considerations for Online Technical Writing

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As has been written about extensively, online technical writing courses hold many potential benefits for students. These benefits are particularly meaningful for students who would otherwise be relegated to correspondence courses, where the only teacher-student interaction was via snail mail and student-student interaction was non-existent. Despite this promise, early versions of on-line teaching have encountered some unexpected obstacles in the form of students ill-prepared for the rigors of electronic learning and teachers unaccustomed to dealing with students without ever speaking to them. In this position paper, I will address potential benefits to on-line courses as well as some suggestions for adequately preparing teachers and students for this new learning environment.

Benefits

Distance education courses have long been an important part of many schools' curricula, providing services for students unable to participate in the more traditional resident courses. Historically, this option has consisted largely of correspondence courses in which students cover the material on their own and mail in tests and assignments. This system limited the interaction between teacher and student and eliminated interaction between students. Newer internet versions of distance education have solved these problems, as teachers and students can easily communicate via email and online message boards. In the technical writing courses I have taught online, I have worked with students from as far away as Malaysia who are suddenly able to work in peer writing groups and ask me specific questions about writing assignments. I have also had students who work full time, who, being several years removed from their own college experience, have greatly benefited from the opportunity to work closely with other members of the course.

Problems

But, as with nearly any enterprise, life is not all wine and roses for internet courses. In my experience with the World Campus (the Penn State instantiation of Internet distance education), very few of the students are those described above who would be unable to attend a resident section. Instead, the vast majority of my students have been typical juniors or seniors right here in University Park who have chosen the World Campus for one of two reasons: no attendance requirement and cheaper tuition. As a college student myself, I fully understand these two motivations; as a teacher, though, I see these motivations leading to a large number of students in each class who are ill-prepared for the rigors of an internet course. The problem is one of perspective: students whose only other option is a correspondence course see an internet course as an opportunity to do more; students who have been taking resident courses see distance courses as a chance to do less. As such, these students are surprised by the amount of work involved in a distance education course.

They are not prepared to participate in online discussions and peer reviews, and they are surprised that there are weekly, and sometimes daily, deadlines. In my experience, this situation causes several students to acclimate themselves very slowly; it often takes so long that they drop the course rather than face the make-up work. I have had sections cut nearly in half by this phenomenon, and this reduces the benefits that come from the group work in the course.

A second issue is the different expectations of the teachers. One area in which this commonly occurs is in the use of standard syllabi for distance courses. Effective internet courses will employ sophisticated software that allows for teacher-student and student-student interaction. Thus, to keep the uploading at a reasonable level, most internet courses employ a standard syllabus across all sections. The problem here is one of familiarity on the part of the teacher. The first time I taught a World Campus section of technical writing, I had several sections of resident tech writing under my belt, and I was fairly confident about my ability to handle the new format. The assignments, however, were new, and in the first couple weeks of the course, I encountered a couple questions that I couldn't answer. I felt like a first-time teacher again as I explained that I had to go ask my supervisor. Now, my feelings are not particularly important, but my standing with the students is, and teachers can have a difficult time maintaining their credibility, especially with older, non-traditional students, if they do not seem to be in charge of the course.

Solutions

Though my specific discussion of these issues stems from my experience at one university, conversations with others have led me to believe that these are fairly common phenomena. And though my chief intent is to bring attention to these issues for departments and programs that are starting internet courses, I would here like to discuss some general strategies to combat these problems before they begin.

Before registering for an online course, students need to know if they have the learning style that will allow them to thrive in a distance education environment. To discern this, students could be required to participate in an online orientation before registering that shows them in some detail what kind of requirements exist in internet courses. This would have a two-fold benefit: it would discourage students who are looking for an easy way out, and it would give the others a better idea of their ability to succeed in a World Campus. The specifics of this orientation would depend on the specifics of the course, but any introduction would help the students prepare themselves.

Likewise, first-time teachers of internet sections would benefit from a practicum that familiarized them with the intricacies of online teaching as well as the specifics of the course syllabus. Teaching online is vastly different from teaching in person, and there are many difficulties that could be avoided if experienced World Campus teachers were able to discuss in detail some strategies for success in this new environment.

Online courses are certain to have a large place in higher education as the

world becomes more wired, and there are certainly many benefits to be derived from such classes. These benefits can be maximized if the administrators in charge of the programs think specifically about the potential pitfalls and provide some ways around them for both teachers and students.

Hyper-Textbooks

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The technological aspect of technical communication has been changing so rapidly that it is getting harder to find textbooks that match what we do in class. For instance, a class on writing for the Web can entail exposure to a number of modalities of writing—informational, instructional, persuasive—and each of these sorts of modalities can call for exposing students to different types of technological issues as well: students may need to learn about HTML, manipulating graphics, and information architecture. The problem is that often no single textbook can suffice for such classes, and the teacher is faced with either tailoring a class to a textbook—which restricts pedagogical freedom—or asking students to buy a number of books. This last option can be an onerous financial burden on the student.

One other option might be using a collection of hypertext sources as a textbook. This idea is not new. In the world of hardcopy, the problem of finding suitable literary anthologies for composition classes has been enough of a problem that several textbook companies began, a few years ago, to make customized textbooks for instructors. The teacher, in those cases, chooses from a list of works that the company has available, and the publisher puts together a customized, specially bound textbook of the chosen pieces for that particular class.

In the case of a technical communication class that focuses on Web-based documents, it might make sense to use Web-based texts as textbooks. For example, if a teacher wanted to teach a class that focused on writing instructions for Web-based environments, and wanted to touch on elements of Web design, information architecture, usability testing and client management as part of the course, then that teacher could include hypertexts from such respected Web design sites as webmonkey, or use search engines to find good texts (there is a good text on Tripod.com, for example, on the basics of HTML).

There are some drawbacks to this course of action, as well as some advantages, as I see it. Let me list them to provide possible inroads for discussion.

Advantages of using hypertext collections as a course textbook:

- Low cost to student
- Highly flexible topic selection
- Easily tailored to changing course needs
- Good for use in computer labs (can have textbook on screen alongside software tools)
- Lost or forgotten textbooks are no longer a worry as long as a computer is handy

Disadvantages of using hypertext collections as a course textbook:

- Initially labor intensive for teacher (who has to search for and screen sources)
- Hyperlinks can expire or change (teacher needs to occasionally monitor state of links)
- Accessibility problems for students without easy computer availability, or with disabilities
- On-screen reading/comprehension problems

This last problem is an especially sticky one. Educational institutions, following the lead of many businesses, are trying to move toward electronic deliverables and paperless work environments. This is particularly true of academic programs in technical communication, which educate people to work in an employment arena that is increasingly electronic. There is evidence, however, that reading comprehension suffers when individuals are asked to read materials onscreen, as opposed to on paper. A recent study done at Ohio State University found that people had trouble understanding and focusing on Web-based content. One of the students in the study said his problems stemmed from the greater graphical focus of Web pages. "There are all these great graphics, and it takes concentration to home in and focus on the actual information," he complained (Greenman G11). Part of this student's problem also had to do with hyperlinks: he found himself "struggling to digest the information on a Web page before being lured away by links to other pages."

Web users are not the only ones troubled by hypertextual documents. At least one Web designer anticipated the complaints of the students in the Ohio State study. Writing in 1998, Jeffrey Veen lamented that "designers add links by inserting harsh blue underlined scars into the patterns of the paragraphs. The result? An overbearing distraction to the reader's subconscious. Suddenly, that reader must decide: Do I stop here and click on to this link? Do I finish the sentence and come back? Do I finish the story and scroll back to the navigation element? It's a headachy mess"(1).

The upshot of this "headachy mess," according to the Ohio State study, is that printed versions of articles were consistently judged to be "more interesting and persuasive" than the same articles read on-screen. Web designers, it seems, will have to be more careful about their use of graphics and, more crucially, come up with some kind of adjustment to rectify the problem with hypertext. Veen mentions various solutions, including two interesting, low-tech ones: move the hyperlinks to the margin of the text, so that they become like annotations, or move them all to the end of the document. He notes that these solutions have been tried by various companies, such as the *New York Times*, but does not say how good the results have been.

Another problem for comprehending onscreen material is that, as most Web design theory maintains, those accessing Web pages actually skim online material rather than read it (activity on the Web is not called "surfing" for nothing). This poses a problem, as the type of reading a textbook demands must include critical thinking and reflection, a form of reading to which the materials on the Web seem resistant.

Perhaps the most vexing problem, in terms of class preparation, is that Websites and their associated hyperlinks

are relatively ephemeral: they change or disappear regularly. This means that the instructor has to constantly check and update hypertext documents used as course material—a task that often means wading through numerous listings for keywords associated with that material that come up in response to online searches. Though it is true that instructors must review newer editions of textbooks for their classes, and that even hardcopy textbooks become obsolete, it is also true that their shelf-life is usually at least two or three years. This means that we can annotate the margins of our textbooks with notes that can be used repeatedly—a type of preparation, by the way, that is virtually impossible with Web pages, which do not lend themselves to easy marginal notation.

Even once materials are located and loaded, one must always consider accessibility. Some Websites take a long time to load and are not very "degradable"—that is, they do not look good on older browsers and computers. So if a student has older technology at home (or none at all), he or she will face an additional burden in using class materials. Moreover, the difficulties with reading onscreen may be amplified for those with any kind of disability.

I have delineated the drawbacks to using Web-based texts as primary course material because I think that in our enthusiasm to adopt technology for classroom use—or, for some, because of pressure to adopt educational technology for reasons of institutional finances or to keep up with the job world—we may not always be moved to consider the drawbacks of technology. Nevertheless, if we can find good solutions to the problems I outline, the convenience, financial advantages to both students and institutions, and flexibility that could be gained by using Web-based textbooks would be significant.

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Technical Writing and Online Distance Education: The Advantages and The Pitfalls

Kenneth T. Rainey

Southern Polytechnic State University

I will describe as much as I know about the extent of online distance education in the delivery of technical writing courses, primarily at the undergraduate level but with some mention of several reasonably significant forays into graduate education via distance learning.

I will discuss the advantages that such a delivery method provides to academic programs in technical communication, focusing on the advantages to the programs themselves, to the students, and to the instructors. The advantages for the programs include such opportunities as reaching far greater audience for the courses and degree programs. What most programs are discovering is that the online courses appeal to students already registered in the university. That is, programs that may have been intended initially to reach different audiences end up delivering to an existing audience simply through a different medium. So programs contemplating such an attempt must realize that to reach a new audience, they will have to market the opportunity to that target audience.

Much of the time, however, I will identify some of the major pitfalls lurking for the unwary who blithely wander over them. One of the significant problems facing programs in delivering online instruction to a new and wider audience is the problem of entrenched bureaucracy at the campus and regents' level of administration. Specifically, the problem of how to handle out-of-state tuition differentials poses major pitfall for a nascent program.

The pitfalls for the students are equally threatening. I have taught our undergraduate service course in technical writing for two years now completely through online delivery. The intended participants of this course are sophomores who have completed the first year (two courses) composition sequence. The major weakness of this student is immaturity and lack of controlled discipline of their lives and of their study. In the five classes that I have taught, I have lost from thirty to sixty percent of the initial enrolment because the students got behind in the work and could not catch up. Because of this, I am changing the method of delivering the course from all online to a "hybrid" form, chiefly online but with mandatory face-to-face meetings during the semester, some 4 or 5. This immediately diminishes one of the chief advantages for students who find it difficult or impossible to travel to the campus.

The pitfalls for the instructor are similarly imposing. In addition to having to teach using an entirely different method of delivery, the instructor faces the threatening problem of having to create the course Web site, learning the Web delivery software, and deciding how to effectively organize the course information so that students can access it easily. These are major pitfalls that can frustrate students and teachers alike. Moreover, just as students will have to

spend more time on the course work, so teachers will have to spend more time on it. My off the top of my head estimate is that my online courses require a minimum of 50% more of my time than a face-t-face course.

Finally, I will suggest that we really need some research into all of the advantages and pitfalls that such a delivery system presents. In fact, I intend to organize a study that will compare and contrast this course delivered in both online and in face-to-face forms by the same instructor, during the same semester, using the same materials.

Negotiating the Intersection of Instructional Methods in Distance Education and the Traditional Classroom

Janice Tovey East Carolina University

More and more technical communication programs are incorporating distance education into their curricula. Whether they use web sites to replace or supplement traditional instruction, the web and Internet have made their marks on the programs today. Online programs are growing in number and degree options: one post-graduate online certificate program at a regional southern University recently added the option of an online masters degree. While its Distance Education certificate program is a success, its instructional method—the web—has influenced the traditional on-campus program to such a degree that the two are virtually interchangeable.

Tension arises when students enroll in a campus class and find themselves in a virtual classroom. They may not ever have to physically enter the classroom, may never meet the instructor or the other students. For some students, this situation is ideal: they can work full time, take as many as classes per semester as they can handle, not worry about baby-sitters or taking time away from work. For other students, this method of instruction may seem attractive, but in the end works to their disadvantage.

The benefits of distance education seem clear enough. For the universities and their faculties, resources are used more efficiently. Documents can be submitted via email, saving paper and printing costs, and returned with comments typed directly into the file. Students can get more individual attention; they can email or chat with instructors when they are actually engaged in writing an assignment. Instructors and students can't anticipate all the potential questions and problems during the normal class time.

Students can also access the "classroom" at any time. If they work better in the evening, then the material is available on the web site. Besides accommodating work activities and other responsibilities, it also helps aids students who work better during hours not traditionally assigned to the classroom. Students can work in greater comfort from their home from their own computers. And, my students would add, they don't have to drive around looking for a parking place.

But beyond the practical and time saving, there are other aspects of web instruction that take away from the educational and practical experience. The interaction with peers and instructor is lacking and is probably unsatisfactory for many. Instruction may suffer from lack of depth: students in a classroom interact with peers and instructors to gain more knowledge, but those same opportunities may not arise in a web class. Even with an organized discussion, the spontaneity is missing and important information may not be discussed. The best-prepared web site may not cover every situation.

Decisions about instructions in both distance education programs and traditional programs have to be made with students' best interest in mind. Perhaps some classes can be

"interchangeable" while others must be taught differently depending on the audience. Negotiating the line between traditional and online classrooms will determine the success of any program whether undergraduate or graduate level and the satisfaction of its students.

Program Priorities: Visuals versus Text

Deborah C. Andrews University of Delaware

At Delaware, the program through which we prepare professional business and technical writers is a concentration within the Department of English. Our students are English majors first: within the concentration we offer courses in editing, rhetoric, and publication, in print and online. Partly because of information technology and new media, these courses, once devoted to preparing text, now pay equal and even greater attention to preparing visuals, or preparing text as a visual.

This binary (visuals and text) leads to several programmatic questions. For one, how much class time should be spent on visuals versus time spent on text? Second, although some technical communication faculty are visually oriented and trained in visual thinking, others are not. So how can we best educate our students in visual thinking and presentation? Third, since the core of an English major is traditionally text, is instruction in visual presentation thus outside the core? And can it count?

My presentation at CPTSC won't, of course, provide definitive answers to any of these questions. But it will discuss how we are collaborating with colleagues in the Department of Art to teach strategies for both visual and textual communication and how English departments like that at Delaware are gradually connecting with their inner—visual—selves.

With World Enough and Time: Balancing Fundamental Skills and Ultimate Goals in Document Design Courses

Susan Lawrence Carnegie Mellon University

Document Design courses may be necessarily ambitious in scope. Kostelnick's "Designing Visual Language," for instance, suggests that such a course will address gestalt composition, typography, grid structure, information structure, presentation of data, use of illustrations, and designing for usability. Schriver's "Dynamics in Document Design" adds the history of graphic design as well as research methods for planning, testing and revising user-centered documents. In some courses, these concerns may be addressed for both paper and on line formats.

At Carnegie Mellon, one of my colleagues, Susan Hagan, has developed a course in document design that focuses on creating effective text/visual combinations on the page surface. We are able to emphasize this aspect of document design because we have other courses dedicated to research methods, planning and testing documents, and on line information design. Yet even having freed ourselves to focus on the interactions between visual and verbal elements on a page, we still have difficulty balancing the foundational skills of visual composition with the ultimate goal of the course—allowing students to create effective visual verbal interactions for a variety of rhetorical situations and purposes. Specifically, we've found that introducing students unfamiliar with visual design to the theory and tools of visual composition takes a great deal of time, and that giving them adequate time to experiment with the principles of gestalt composition, typography, page proportion and grid structures can consume more than one-third of the course, up to five or six weeks.

Looking at textbooks, we can infer that a course in document design might devote two to three weeks of its syllabus to gestalt composition, typography, and page proportion. This is just about enough time for students to learn about these principles and guidelines, but not nearly enough time to practice them. In this scenario, students try out this new set of tools and concerns for the first time in their rhetorically driven projects. But we've found that when students move directly from learning about visual composition into a goal-oriented project with multiple constraints, their designs tend to be conservative and timid, and they often simply default to "page set-up" mode, perhaps with a new typeface and a shorter line length. In short, using these new compositional tools for the first time in rhetorically situated projects seems to short-circuit students' learning about those tools, and, consequently, to constrict their ability to use them. This problem is similar to one we face with regards to writing, but it may be even more pronounced when writers are learning visual composition, a practice with which they typically have little familiarity.

When, on the other hand, we've allowed time for students to experiment

with their new compositional tools in loosely designed assignments with minimal constraints, they make discoveries and build a repertoire of strategies (developed through a great deal of trial and error) upon which to draw when they move on to designing documents for specific audiences and purposes. In effect, we want students to practice drawing an audience's eye into and through a page using as many elements of grouping as possible—value, size, placement, proximity, isolation, texture, shape, etc.—and to have ample time to work with negative space shape. We want them to discover—not just read about—how typographic elements like typeface and size, line length, leading, justification and page proportion interact with one another. Doing this takes time, even more time if we want to allow for second and third iterations. The advantage is that when students approach their formal projects with real-world rhetorical constraints, their designs reflect a more confident use of visual composition and typography in order to achieve their rhetorical goals.

The problem with this approach is that we lose valuable time that would otherwise be devoted to two equally important dimensions of the course: first, exploring the different kinds of interactions between visual and verbal elements on a page, and second, creating visual/verbal combinations that are effective for specific rhetorical purposes. Susan Hagan has developed a taxonomy of interactions that can link visual and verbal elements to create meaning and guide audiences' attention from text to visual and back again. We believe it's important for students to think about visual/verbal combinations in terms of these interactions as well as through the more traditional lens of rhetorical purpose. One reason is that document design needs to help students develop generalized principles and heuristics for composing visual/verbal combinations that can be brought to bear on audiences and purposes we don't explore in our course. Dedicating time to the ultimate goals of the course becomes difficult, of course, when one-third of the syllabus is given to the fundamentals of visual composition. But we are trying to avoid a situation in which we introduce students to a set of concerns and tools without providing the scaffolding they need to put these concerns and tools into play.

Our program has sought a variety of means to ease this tension between fundamental skills and ultimate goals in visual/verbal composition. As noted above, we have divided the labor of document design among more than one course. We've taken a slightly different approach with our master's students, requiring them to take a prerequisite course in visual design fundamentals from Carnegie Mellon's School of Design, a strategy that is meant to create more space in our own course for its most central concerns.

I am interested to hear how others have experienced this tension or attempted to resolve it, with respect to visual/verbal combinations specifically, or with document design more generally. And although I haven't made this concern central to my presentation, I would be interested in unpacking this issue of what happens as students try to develop and use their document design expertise in courses that don't actually address this aspect of professional communication. A final programmatic concern is how these issues affect the training of Ph.D students in programs in professional and technical communication.

Web Design as Technical Communication Service Course

Pete Praetorius

Montana Tech
of the University of Montana

During the spring of 2002 I taught a Web design course. To my surprise, two-thirds of the students who registered for the course were business majors. These students registered for the course because the Montana Tech Business Department decided to count the Web design course as a computer science elective. Although I still argue that Web design is a technical communications and *not* a computer science course, both the students and I quickly realized that a course in Web design is appropriate for business students. In fact, rather than being simply a specialty course for technical communication majors, the Web design course makes for an excellent service course for students majoring in all disciplines. In this position statement, I discuss how a Web design service course can benefit students of any major as well as departments of technical communication.

Benefits to students

What students learn in a course on Web design overlaps and complements what they learn in a course in technical or business communication/writing. Here is a partial list:

- **Rhetorical Concerns:** As with early composition courses that were taught in computer labs, it is easy for a Web design course to lose its design/communications purpose and slip into being taught as a course in how to use a particular Web authoring software. Designing a Web site begins with rhetorical concerns such as consideration of audience.
- **Design Principles:** Robin Williams (author of *The Non-Designer's Design Book* and *The Non-Designer's Web Book*) rightly points out that basic design principles for the world of print are applicable to the Web and vice versa. Thus, when students learn about alignment, contrast, and proximity in a Web design class, they are learning design principles that can readily be employed when they work on print documents.
- **Search Engines:** Although a course in Web design is not generally identified as a research course, this course is an excellent place to help students understand how search engines work. In learning how to make their own sites come up in searches, students also learn how search engines work. Because the gap in how Web based search engines and library search engines work has narrowed, students gain a transferable skill when they learn the intricacies of Web search engines.
- **Usability:** A Web design class is an excellent place to introduce students to the concept of user-centered design. Students quickly realize that those who visit Web sites are often "users"

rather than "readers," and, if users are going to stay on a site, the site must function in a way that easily allows users to complete their objectives.

- **Organization:** Although the experience of users using the World Wide Web is often categorized as nonlinear and a hierarchical, those who create and maintain Web sites must be very organized and pay close attention to organization and detail. The organizational skills that students learn in a Web design class will likely help them in their other classes and throughout their lives.
- **Evaluation:** Perhaps the most important thing that students learn (particularly business students) when taking a class in Web design is how to tell the difference between good and bad Web sites. Because many business majors may one day be in a position to pay for Web site development, these students should be given the ability to recognize a good Web site.

Benefits to a technical communication department

In addition to being a benefit to students, a Web design service course can be a welcome FTE generating course for departments of technical communication.

- **Service Course:** Web design courses could conceivably become required for many majors; if a Web design course isn't required, it will certainly continue to grow as a popular elective. Thus, as a service course, Web design will help grow technical communication departments.

- **Recruitment Tool:** The Web design class is a good place to introduce students in other disciplines to the Technical Communication major. Students in other majors are often scheduled to take a technical or business communication class in their junior or senior year. Such students may excel in their technical communication course, and may even wish to change majors, but many are too far into their academic careers to do so. Moreover, a number of students may be dissatisfied with their current major and drop out of school or transfer before learning about a school's technical communication degree. Technical Communication departments can use the Web design course as a recruitment tool and introduce students to technical communication during their freshman or sophomore year.

- **GTA Course:** Web design can readily be taught by graduate students. The Web design course can help technical communication departments recruit graduate students by providing a source of graduate teaching assistantships.

Ad/Manual: Rhetoric of Technology in the Technical Communication Program

Dan Riordan University of Wisconsin-Stout

While at first glance ads and manuals have little in common in the rhetorical study of technology, their use in the undergraduate rhetoric of technology course provides a fruitful way to help emerging technical communicators grasp the conceptual basis of their profession.

After an introduction to basic concepts of *technology*, *rhetoric*, and *discourses*, students must learn to analyze the rhetoric by which technology is socialized or as Charles Bazerman says, given "presence, meaning and value" (335). In *Body Talk*, Mary Lay and others call for a close reading of the technological situation, urging critics to look carefully at word choice, metaphor, definitions, images, narratives and arguments. In *Twenty Ads*, James Twitchell uses a similar approach.

To practice this approach students study ads--for any product from lipstick to computer operating systems. Students learn to read the page rhetorically, seeing how the images and page arrangement constitute a method of socializing the technology. Once students grasp this method they can apply the same approach to pages of a manual. The arrangement of the information on the manual's page becomes not a set of design rules to follow, but a rhetorical method to socialize a technology for a reader. The Charley perfume ad from the 1960s and the manual for an Epson scanner suddenly interrelate in a powerful way.

As students study ads they come to understand the role of rhetoric in culture and the powerful way in which rhetoric and technology are intertwined; they can see the cultural impacts of technology; they experience the humanistic basis of technical communication. As students apply the knowledge gained to studying manual pages, they can see their field and their work as communicators in a new, broader light. They can see how all the design and writing skills combine to integrate the reader with technology. The ad/manual binary combines two different approaches into one focused professionalizing experience.

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Concurrent Session 3

A. Tech. Comm. & Its Neighbors: Collaborating Inside and Outside Academia

The Inside-Out Initiative: Negotiating and Reducing Difference with Colleagues Both In and Outside the University; Or, What Do Technical Communication and English Education Have in Common?

Ann M. Blakeslee Eastern Michigan University

Many technical communication programs reside in large and diverse departments like English. Often, technical communication faculty feel marginalized and end up struggling for recognition and identity. When this occurs, some of us turn for support to colleagues outside of the university; however, differences exist there as well.

So where do we turn?

In this presentation, I argue for looking again, but somewhat differently, at our colleagues both inside our departments and outside our universities. I show one way in which we might join together to pursue common goals.

Specifically, I describe an initiative, called Inside-Out, that originated at a meeting at which various diverse writing faculty (including basic writing specialists, English education faculty, and technical communication faculty) discovered an important area of shared concerns. What we discovered was that all of us were doing outreach, in one form or another. What we determined was that we had a good deal to gain if we coordinated our efforts with outreach. What resulted was the Inside-Out initiative, a three-part initiative funded by the University as a result of a strategic planning process. The three parts include the following:

1. Celebration of Student Writing, an event held at the end of each semester where students in first-year writing courses make a presentation of community-focused writing and research to the campus and local community;
2. Classroom to Classroom, which brings together English faculty from EMU and from area middle and secondary schools for collaborative projects;
3. Classroom to Community, a project that focuses on establishing connections between EMU English Department classes and the community.

In my presentation, I will share the process by which we developed this initiative, and I will discuss some of the specific activities that already have and are currently resulting from it, including a portfolio exhibit that involves students, faculty, industry specialists, and high school teachers and their students. I also will describe a summer program designed to introduce high school students to various writing professions. My primary focus will be on ways in which we can work productively on initiatives such as this with our colleagues both inside and outside of the university—and what can

result when we do. Often the differences we perceive are very real, but opportunities exist for finding a common ground from which both we and our students can benefit. Sometimes these opportunities are closer than we might think, as my own experiences seem to bear out.

Training Students as Technical Communicators for Interdisciplinary Situations: Traditional Scenes vs. Indeterminate Zones for Collaboration

John C. Gooch Louisiana Tech University

Texts such as Andrea Lunsford and Lisa Ede's Single Text/Plural Authors: Perspectives on Collaborative Writing and Collaborative Writing in Industry: Investigations in Theory and Practice (Mary Lay and Bill Karis, Eds.) have inspired dialogue and further research concerning collaboration and technical writing. This extensive body of research, which has grown considerably over the last 10-15 years, has asked us to consider what defines successful collaboration as well as ways in which the technical writer can more effectively collaborate with the subject matter expert (SME).

The focus of most studies, both those that emphasize workplace writing and those that emphasize pedagogy, is to examine traditional scenes of collaboration and technical communication. I want to encourage technical and scientific communication programs to prepare students for collaboration within "indeterminate zones," or "instances where practice is not smooth because the practitioner has encountered an unfamiliar situation" (Howe). Research and both pedagogical and workplace practice have not aggressively pursued the question of how we can better train students to address situations that they may not encounter as a part of the day-to-day work routine.

Multi-disciplinary or interdisciplinary situations for workplace collaboration are becoming more and more the norm in workplace settings (see Duncker), and in order for technical and professional communication students to succeed in such situations, we should begin asking them to consider indeterminate zones for collaboration and professional writing within organizational cultures. Some scenes of collaboration are typical for workplace practitioners; for example, the technical writer in a software company works daily with software engineers, the SMEs, to prepare well-written documentation. However, projects may require that the technical writer, or the disciplinary professional who is engaged in professional/technical writing, to work with several people from outside his or her field of expertise. Organizations are now working increasingly across multiple disciplinary boundaries, and a wide-range and number of SMEs can indeed exist in some collaborative writing situations.

One particular approach to encouraging interdisciplinary training in classrooms is, rather simply, to ask students to work with others from a very different field of study. For example, I have created collaborative groups in which the marketing major must work with the engineer, which establishes a situation that might indeed correspond to one in the workplace. By focusing collaborative writing projects on subjects that require the expertise of all members, students learn to communicate and to work with others who come from fields very different from their own. Essentially,

the student is learning to understand the disciplinary language and mindset of another aspiring professional as well as learning to accommodate and to engage another perspective different from his or her own.

Creating and Connecting Curricular and Extracurricular Service Learning Opportunities: A Role for and Benefit to Technical Communication Programs

Heather Sehmel Texas Technological University

Service learning, where students learn course content partially through projects with people in the larger community, is currently a popular pedagogy for technical writing teachers and in technical writing programs. Proponents argue that service learning gives students experience dealing with the real scheduling, budget, and audience realities of real writing projects while helping them contribute to their communities and apply course concepts in a situation that they perceive as more real than many more traditional case study and other classroom approaches. At the same time, student chapters of the Society for Technical Communication and other student organizations based in academic departments or university contexts and catering wholly or at least in part to technical communication students often must maintain service projects in order to qualify for university student organization funding or choose to participate in service projects as part of their organizational missions.

However, in-class service learning and extracurricular service projects tend to be divorced from one another. Students in student organizations are probably more likely to plan traditional student organization projects like picking up trash in the community, raking leaves for the elderly, or planning a blood drive, than they are to think of and implement service projects that ask them to use and practice their developing document management, writing, and design skills. Faculty advisors, the same faculty who may be asking students in class to work on service learning projects, are less likely to guide student organizations toward extracurricular projects. This separation between curricular and extracurricular activities does not do any harm, but neither does it enhance students' education and service in the ways that bridging this divide might.

While both academic (classroom) and professional/social/academic extracurricular groups participate in service projects, with the former emphasizing learning and the latter emphasizing service, technical communication programs could do more to integrate these efforts, guiding student organizations to participate more often and more intensely in service projects that can help participating students learn in addition to allowing them to serve. Programs could also help support such service projects, perhaps by providing "clients" to serve or by making faculty available to provide support for different aspects of a project. An example of a service/service learning project that could cross the curricular/extracurricular boundaries might be having a student organization analyze an audience for and create a website for a local not-for-profit organization. The technical communication program might help provide a client, with whom one of the faculty members might have an existing relationship. Faculty might help students in the student organization plan the

project, breaking it down into discrete and overlapping units and creating a schedule for planning, drafts, revision, and delivery of the product. Parts of the project might be completed by members of the student organization, working in small groups. Students in existing courses could complete other parts of the project. Members of the student organization might create a plan for analyzing the audiences for the group's website and carry out some parts of that plan, like creating and distributing a survey. Meanwhile, students in existing classes might create parts of the website as class assignments while other parts are, if need be, created by students in the student organization, all with the guidance of faculty members through in-class instruction, out of class workshops, and other help. Then, students in an existing class might usability test the website and prepare a report for the student organization, which could assign members to revise the website.

This kind of project would enhance student experiences in and outside the classroom. Students in classes could work on small parts of a larger project, having manageable assignments like usability testing a portion of a website or creating just one part of a larger website. In the process, they would work collaboratively with students in other classes, sharing experiences with and learning from students at other levels of the program: first-year students in an introductory level course might work alongside and learn from seniors about to graduate, a kind of cross-level collaboration—currently rare—that could enhance student learning and create a sense of community in the student organization and writing program. At the same time, members of the student organization would both conduct required or desirable community service and also contribute to their community in a way that few other student organizations on campus could. Furthermore, members of the student organization would be learning more through their service project than they would through other, more traditional service projects.

Altogether, while my suggestion that technical communication programs help students bridge the curricular/extracurricular binary would require some investment of time and effort on the part of faculty and students, the rewards for such a project, whether large (like the website example I discussed before) or small (making a newsletter or a brochure for a local group) are many and varied. In addition to tangible benefits like deliverables made for the community, community service projects completed, and reality-based classroom assignments completed, there are intangible benefits: building a community of learners within a program, building students' collaborative, planning, and writing skills, and enabling students to use those skills to help others.

Repurposing v. Generating: Developing a Certificate in Technical Writing

Tracy Bridgeford University of Nebraska at Omaha

Developing a certificate program in technical communication has led to some concern for me about the value they offer students. This concern grows out of my belief of technical communication as a rhetorical practice and the idea that "certificate" could reinforce the "vocational ethos" often attached to our programs and courses (Little, 1998). Although this concern is justified, certificate programs can add value to our programmatic and pedagogical objectives through careful and conscientious planning.

Certificate programs are valuable for departments that lack the resources to offer a full bachelor's or master's programs, for departments seeking to identify various specializations, for departments that collaborate with related programs offered by the university, and for departments working in conjunction with industry to fill a local need for specialized knowledge and skills.

Certificate programs seem to be designed in one of two ways: as a repurposing of courses within an existing program or as a generation of new courses within an existing program.

- ***Repurposing*** refers to the bringing together of existing resources into a new format—essentially redefining their purpose within a new framework. Repurposing existing courses not only saves time, money, and energy, especially from an administrative perspective, but also allows department and faculty to shine in new ways.
- ***Generating*** refers to the development new courses that are designated specifically for the certificate program, but prior to its existence. Although generating new courses might require new resources, these resources can often be gained through agreements with other departments. For example, in exchange for cross listing my courses with the Department of Communication, I am allowed to teach in their computer labs, which are better equipped than ours in English.

At my university, certificate programs have grown considerably during the last five years in an effort to realize the "metropolitan" mission that the university advocates, which essentially strives to meet the increasing needs of industry in my region. To gain approval for a certificate program at UNO, the courses must already be in place and the proposal should reflect university metropolitan mission statement. Like other universities, my university enthusiastically supports the creation of certificate programs through repurposing mainly because it saves money (which is especially important with the budgets cuts occurring at this and other schools across the nation).

As a new faculty member, I am charged with developing a technical communication certificate program. Because technical communication is new to the traditional English Department in which I work (aside from the obligatory service course), I have had to first generate new courses that will provide the certificate's curriculum in order to later repurpose these new courses in a proposal for the program.

Common sense would suggest that this programmatic approach seems backwards. Creating a certificate program by generating new courses under the guise of a repurposing model not only reinforces the vocational ethos many have fought against but also contradicts my efforts to develop a comprehensive and meaningful program. In designing meaningful courses, I will need to have the repurposing model in mind even before developing these courses.

For me, the purpose of this certificate program in technical communication has to be to prepare students to be prepared to learn much of what they'll need to succeed *on the job*. I need to design these courses in ways that teach students strategies for continued learning that, in essence, teaches them how to figure out what they need to learn. And figuring things out requires helping students develop interpretative strategies.

With only five courses to help prepare them, students have to learn how to interpret what's going on, how to articulate their interpretations, and how to negotiate their interpretations with other members of a community. They need to learn strategies for demonstrating their understanding of how to belong to a particular community.

Back to Basics: Theory and Research vs. Teaching Software in Tech Com Programs

Susan Feinberg Illinois Institute of Technology

As technical communication programs flourish at the undergraduate and graduate levels, the question of whether or not our field consists only of service courses or of a curriculum for professionals is becoming moot. But the question we are revisiting at IIT is 1) are we providing only a professional education with applied courses that teach specific software, or 2) are we providing an education in technical communication with courses that stress theory and research.

To take the side of the proponents who advance designing a curriculum for professional education with applied courses, we should begin with the students who want to focus on preparation for a job. They want a professional degree, perhaps a masters of Tech Com, with courses that translate well to the marketplace, including the teaching of useful software.

On the other side are academicians who feel that a university is a place where students learn theory and research that they can apply to practical situations. The learning of software is a side effect to the study of document design, online design, project management, etc. Of course the student generates products such as web sites or document designs, but mainly to apply a theory. Here the students earn a master of science in Tech Com, with the ability to learn software on the job, perhaps at the company's expense.

This paper raises the question not of right or wrong, but rather of degrees of compromise. Who are the stake holders? Students, professors, administrators, employers? What priority should each be given?

Are there other significant factors? The economy, the environment of the institution, the political/socio/cultural mood of the times?

This paper will discuss the professional versus the educational issues as they complicate and challenge programmatic perspectives in technical and scientific communication.

I would hope that other at CPTSC would join in this discussion.

Skills and Literacies for the Postmodern World: Developing a Professional & Technical Communication Major at Weber State University

Becky Jo McShane Weber State University

At Weber State University, we offer a 4-course minor/emphasis in professional and technical writing. As we develop our program into a major, we need to focus on the skills outlined by Greg Wilson and Kelli Cargile Cook. In their respective articles, Wilson and Cargile Cook explain the four types of skills essential for technical communicators to succeed in the postmodern world (Wilson 84) and the six layered literacies necessary for good technical communication pedagogy (Cargile Cook 7). The four skills include abstraction, systems thinking, experimentation, and collaboration. The six literacies include basic, rhetorical, social, technological, ethical, and critical. By foregrounding these skills and literacies in the development and assessment of our program, I believe that we can create a lively and timely technical communication major. In Wilson's words, "courses that focus on technical communication as symbolic analysis may better prepare students to be corporate citizens in the postmodern workforce" (85). Unlike my own experience as a technical writer, I hope we can develop a major that enables our students to find, create, and retain stimulating careers in technical communication.

Currently, the P&TW program at Weber includes four courses: English 3100 Professional and Technical Writing, English 3140: Technical Editing, English 4100: Issues in Professional and Technical Writing, and English 4120: Seminar and Practicum in Professional and Technical Writing. In the final capstone course, English 4120, students do an internship and assemble a portfolio of their professional and technical writing. As they participate in technical communication situations (internships), as they use email and online discussion groups to report their progress and respond to readings (assignments), and as they package their communication skills for their future job search (portfolio), students demonstrate the skills described by Wilson and the literacies outlined by Cargile Cook. By using this course as a final check of our students' skills and literacies, we can determine where the program weaknesses lie and begin to fill in any gaps as we develop new courses. I propose adopting these frameworks as the theoretical apparatus for our program's expansion.

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Familiar Wheel to Build, New Road to Explore

Lili Fox Velez Vox Medica

Perhaps because we believe that there are rhetorics operating in every field, we keep finding new places to recreate ourselves: technical writers work with—or as—engineers, scientists, businessfolk...and we strive to show dubious professionals that our area of expertise is both not foreign to their profession and not simply a decorative art. "It's not content vs. embellishment!" we insist. "It's effective communication for a given purpose and audience!" We settle the matter as best we can and troop off to the next discipline where the natives don't see how people without their credentials could possibly help them communicate better. Rhetorical knowledge isn't yet a recognized skillset in these disciplines, even though success requires persuasive abilities.

The world of pharmaceutical research, development, and marketing [which is becoming more and more of a blur, exactly when perhaps we'd all prefer a few crisp distinctions] requires great amounts of rhetorical ingenuity, but for most communication positions, the desired credential is a medical license. It's the situation technical writing faced when only the engineers were considered the legitimate source of knowledge/documentation.

What I'd like to discuss with the group is how medical writers of varied backgrounds try to educate one another in the workplace [and about workplaces], and how this might inform technical writing curricula, and student recruitment. One of the binary oppositions I tried to defuse when running a program in medical writing was the perception that potential undergraduates would either be interested in a medically-oriented career OR a humanities-oriented career. It was difficult persuading admissions counselors that students who might desire both kinds of preparation existed in sufficient numbers to be economically interesting. And perhaps they can't be, because at the undergraduate level, students are forced to choose: the training usually required to gain medical credentials often eliminates room for electives—pharmacists-in-training, for instance—are not permitted to take classes outside their major during the last two years of their R.Ph. programs. But there ought to be ways to overcome these obstacles.

Identifying Tensions in Virtual Spaces

Rebecca E. Burnett Iowa State University

The development of Web-based professional communication programs is constrained by a number of political, process, technical, and pedagogical tensions, most of which are oversimplified as binaries. This presentation reviews this team's goals and development process, identifies a number of these binary challenges, and then introduces one way to address a number of them in our Web-based learning environment.

Political tensions often derail development efforts: (1) Buy-in vs. resistance. While universities are promoting Web-based courses, resistance from stakeholders who don't fully buy in to such learning environments constrains the process. Buy-in and resistance are often conflated when institutions encourage Web-based learning environments but provide minimal support and underestimate instructor efforts in developing and teaching such courses.

Process tensions often define institutional biases: (2) Costs vs. benefits. Developing online learning environments has both temporal and financial costs. However, these costs don't necessarily result in individual and/or institutional benefits often touted for online learning. (3) Intellectual property vs. egalitarian Web. One of the earliest concepts of the Web envisioned a space for unrestricted sharing of information. This concept is increasingly in conflict with perceived interests and needs of institutions and individuals to identify and protect ownership of intellectual property.

Technical tensions often constrain development: (4) Managing face-to-face and Web-based delivery. In courses designed for traditional, on-campus students, Web-based learning environments are often used in conjunction with face-to-face interactions. Combining modes of instruction requires instructors and students to understand and negotiate the purposes of both modes of delivery and the ways in which they can work together. (5) Integrating usable design and pedagogy. Implementing Web- based learning environments involves both instructional design and Web design experience. Instructors and designers need to ensure that Web designs are not only usable but also compatible with the pedagogical goals for communication-intensive courses.

Pedagogical tensions often highlight instructors' apprehensions: (6) Presenting rhetorical and instrumental discourses. Web-based learning environments need to provide a strong rhetorical foundation in technical and professional communication and to address the instrumental goals suggested by some aspects of the workplace, a challenge that is magnified in virtual spaces. (7) Managing student expectations and resistance. Students familiar with conventional classes often approach Web-based learning environments with varying comfort levels about technology and independent learning.

Online Learning: Revisioning Rather than Repurposing

David Fisher Iowa State University

At first glance, the deployment of learning materials on the Web seems to offer considerable potential for giving students some control over their learning, allowing them to take a participative role in knowledge construction rather than a passive role as receivers of knowledge (Oliver and Herrington 189). Students determine the time during which they interact with the course materials and the place from which they access those materials. Furthermore, a Web presentation allows them to determine their path through the material. Still, most would agree that providing students with the ability to "click around" a textbook that has been "chunked up" and placed online is a weak construal of a "participative role in knowledge construction." Oliver and Herrington warn of the "technological imperative" that "sees the need and place for information technologies in education being based on such organizational factors as opportunity, competition, and efficiency" (178). They go on to observe that when these technical imperatives drive change in education:

> The applications of learning technologies are more likely to be made through additive strategies which see existing strategies and methods being complemented by technology-oriented initiatives. . . . A majority of current Web-based learning environments have evolved from face-to-face teaching programs in [this] additive form . . . (178).

These additive strategies, I believe, arise when we concentrate on the content of new media rather than the media itself as a discourse formation. In *Understanding Media*, Marshall McLuhan interrogates technology and communication media by juxtaposing a medium's "content," and the medium's "message," which for him "is the change of scale or pace or pattern that it introduces into human affairs" (8). Both McLuhan and Johndan Johnson-Eilola see the initial applications of new technologies as hearkening to common uses of familiar technology (e.g., placing a textbook online). Johnson-Eilola suggests that "those features of the technology that are most alien" promote a form of "nostalgia," causing us to "rearticulate new technologies to function like old ones" (8). In the case of Web-technologies, I believe the feature that seems most alien—both liberating and intimidating—is that of virtual space. Our first inclination, then, has been to fill this space with traditional content or adapt (repurpose) traditional content for this space. "Web delivery," then, is the mantra of the nostalgic technological imperative. The statement "Web delivery" implies that the Web enables us to convey existing materials (syllabi, lecture notes, assignment sheets, textbooks) more efficiently and to individuals spread across a greater geographic area (who have access to computer and telecommunications technologies). It says nothing about the potential for radical transformation of pedagogical practices inherent in virtual space.

How, then, might we create an environment that develops from a pedagogical imperative rather than the technological imperative discussed above (178)? The pedagogical imperative, Oliver and Herrington claim, leads to "more integrated approaches which have the potential to redefine and transform the more fundamental aspects of teaching and learning" (178). I believe the development of an online learning environment in which we ask students to make sense of things as they participate in a simulation is one representation of the integrated approaches for which Oliver and Herrington call. Indeed, the deployment of a simulation space provides students with what Lévi-Strauss calls "the set of tools and materials . . . [that are] the contingent result of all the occasions there have been to renew or enrich the stock or to maintain it with the remains of previous constructions or destructions" (17). Within such space, our students can practice the way of the *bricoleur*, which I think is also the way of the contemporary professional communicator. Students can transform questions like "who named this stuff?" into interrogations and articulations of what Carl Herndl calls "'practical' knowledge of how things work," which he observes usually "remains tacit" (353).

The simulation experience does not eliminate the need for instruction in rhetorical theory; however, it does turn the traditional model of reading the "text" before undertaking a prescribed writing task on its head. The simulation experience causes students to seek help from an online guide or a "writing mentor" (the instructor) as they need it. This approach helps technical communication instructors to develop our students as *technitai*, or "artists," who are able to learn the causes of what they are doing as they are immersed in a particular context. Furthermore, the simulation enables us to prompt students to discover situational elements that have traditionally been difficult to evoke in the advanced writing classroom (e.g., enabling them to discover tangible elements of an organization's document circulation processes). Such experience should prove useful to students as they make the transition from their work at the university to their work outside the university.

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Tensions Between the Academy and Industry

David Morgan (Retired)

When I consider the theme of this conference about binary tension in relation to the work I have been doing, I find immediately that I have five tensions—

1. I work in Australia, with an Australian background, which is substantially different from the American scene in many ways.
2. My background has been in industry, producing materials for clients, not for students in an academy.
3. The medium I worked in was online not face-to-face.
4. The emphasis within the team I worked with was learning, not teaching or training. Arising from that…
5. Our work had to be successful or our clients were unhappy and we didn't get any new ones.
   In order to satisfy clients, online products have to be successful. 'Successful' for us meant:
   - A high proportion (at least 90%) of the learners who enrol in a module complete it successfully.
   - The learners acquire competence according to the learning and business outcomes, and can apply the knowledge and skills they have acquired in the workplace.

In order to produce successful modules, we developed an approach that we called 'learning online'. We defined this as the learning that takes place when a learner interacts with educational materials presented online and learns from them in collaboration with a tutor and with other learners. This learning can later be applied in the workplace. Our approach became a highly specialised application of technical communication.

Seven key elements mark off learning online from any other approach, and these would constitute the basis of any program designed to teach students how to produce successful online modules.

1. The material must be provided by a subject matter expert, who must take no part in the production of the module.

   Producing an online module requires highly specialised skills that academics cannot be expected to have. The production team must be a closely integrated creative

group with skills in language, writing, design, and education. They do not need to have much technical knowledge except to be able to work within the learner management system.

2. The material must be oriented to both learner and learning.

   The whole emphasis is on having the learners learn. There is no teacher, although there is a tutor, who plays quite a different role, and there is no classroom, real or virtual.

3. The goals of the module must be expressed as learning **and** business outcomes.

   These are defined in terms of what the employer wants the learners to achieve and be able to apply to the workplace. Learning outcomes by themselves are not sufficient. Business outcomes relate to the benefits that the company will derive from the learning.

4. The learning material must be contextualised.

   The learning is set into a metaphoric environment that is as close as practicable to a workplace. The learning and the assessment are therefore real to the learners.

5. The learners must be able to apply their learning successfully in the workplace.

   The knowledge and skills acquired enable the learners to do a new job or to do an existing job more proficiently. There is no point in learning if the learners cannot apply what they have learned in the workplace. That is what the employer wants–to have skilled and knowledgeable employees, at all levels.

6. The module must engage the learners.

   It does that through design, text, illustration, navigation, and so on. The learners generate meaning from a whole range of clues provided by the screens, and interact with the material that they perceive there.

Successful learning needs contact with a tutor and collaboration with other learners. The tutor supervises the learners' progress, provides assistance where needed, and assesses and provides feedback on assignments. The learners collaborate with each other through discussion boards, guided by the tutor, and so enhance their learning from the experience of others.

Dissembling the Binary of Theory and Praxis in Digital Communication: Programmatic Concerns

Richard K. Mott New Mexico Tech

Although the structure and organization of content has always been important in the classroom, technical and scientific writing programs must exhibit and impart a critical literacy unknown less than a decade ago. In order to instruct students how to recognize, understand, and ultimately, design effective digital documents, not only must programs train students how to produce multimedia content either from scratch or from third-party material ñ the practice of digital communication ñ they must also teach them how to arrange that content while implementing clear navigational strategies ñ the theory of digital communication.

Teachers stress structure and organization of content within the digital medium because, as Kathleen Burnett claims, hypermedia "posits an information structure so dissimilar to any other in human experience that it is difficult to describe as a structure at all." Because of this apparent lack of organization and Liestol Gunnar's claim that, "hypertext redefines the authority of the author, implied or explicit, and the reader gains more control," digital communicators must clearly and completely understand for themselves the structure of the information they are presenting so they can arrange it in some comprehensible form.

Thus, students who train to be digital communicators must negotiate the binary of theory and practice. Not only must students learn to critique and analyze other multimedia projects in terms of content, structure, and navigational issues, they must learn to be conversant in the language of multimedia software and hardware. Many programs attempt to teach these elements in a series of disconnected one-semester classes in which students create smaller, more controlled projects. I argue, however, that in order to cover the breadth of material necessary to become effective digital communicators, students must collaborate on at least one year-long project to design, record, and produce a professional-quality CD or DVD.

Such a proposal, however, creates problems within the structures of many technical and scientific writing programs. Which "traditional" class or classes can be sacrificed or folded into a revised set of course requirements that include these year-long digital projects? Is such change even necessary? Why must writing instructors teach students how to use software applications anyway ñ shouldn't they focus more on the theory of digital communication?

Building the Research Base of Scientific and Technical Communication by Increasing Our Collaboration with Master's Students

David Dayton

Southern Polytechnic State University

The English department at Utah State University will soon offer a new Ph.D. degree in Theory & Practice of Professional Communication. The proposed degree, which lacks only final approval by the Board of Regents in Utah, has been in development since August 2000. It will be the first doctoral degree offered by the department, and only the second to be offered in the College of Humanities, Arts, and Social Sciences.

The proposed program was developed at the request of upper administration at the university, where the department's success with its existing programs in this area and the strengths of recent faculty hires made such a program feasible. (For a more detailed discussion of this program's evolution, see the *Profession* article by Brooks, Yancey, and Zachry.) With this administrative support, committees and individual faculty members within the department initiated studies that would help shape the decision-making process during proposal development. These studies included a survey of potential students in the Intermountain region to determine how many qualified people might be interested in applying to such a program and what they would be interested in studying upon entrance. An assessment of doctoral program offerings and strengths throughout the Western states provided additional information, as did an examination of Utah State faculty strengths and departmental resources. The results of these and other related investigations such as a study of academic job advertisements and a forthcoming *Technical Communication* article by Cook, Thralls, and Zachry, proved instrumental in our planning discussions about the proposed degree.

Based on the information collected, the department has designed a doctoral degree program that draws on strengths of two of its pre-existing areas, technical communication and English education. Within these areas are 16 specialists in technical communication, organizational communication, rhetoric, composition, classroom instruction, online learning, and linguistics. In addition to the primary courses offered by the new Theory & Practice of Professional Communication faculty, doctoral students will complete significant coursework in a cognate area of their own choosing. These cognate areas are not predefined (students develop them in conjunction with their supervisory committees), but we anticipate that many students will draw heavily on graduate courses in instructional technology, business, and mass communication. Initial conversations with potential students also indicate a widespread interest in doing cognate work in the Folklore and American Studies programs, which have a strong reputation at Utah State. In particular, potential students have discussed research that would combine practice and theory in professional

communication with educational opportunities in museum work, field studies, and archival processes.

In earlier versions of the proposal, the program was entitled, "Professional Communication, Culture, and Technology." Outside the department, however, this name was criticized as being too broad and too far removed from traditional conceptions of what English departments do. Consequently, the name was changed to "Theory & Practice of Professional Communication," and the emphases in culture and technology will instead be described in the planned catalog and advertising descriptions of the program.

Much of the programmatic materials needed to offer this program (e.g., policy and procedure texts, forms) have already been created in anticipation of final approval. State budgetary constraints, however, have led to a freeze on all new program offerings. When the program receives this final approval, it will be formally advertised, and we will begin accepting applications from an existing pool of potential students who have already expressed interest in applying.

No Human Subjects Were Harmed in the Writing of This Proposal: Tensions Between Institutional Review Boards and Writing Programs

Cindy Nahrwold University of Arkansas—Little Rock
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At the start of the 2001-2002 school year, our Office of Research and Sponsored Programs (ORSP) e-mailed the entire faculty the "Student's Guide to Using Human Subjects in Research" (Appendix A). While many of us in the Department of Rhetoric and Writing ignored it, we soon learned that this policy may have a potentially devastating impact on teaching and research in our program at both undergraduate and graduate levels.

To date, we have encountered the following problems with our Institutional Review Board (IRB):

> The "Student Guide" states "if your research project (including observation, interviews and surveys) involves human subjects, you must submit an IRB Review request form." As technical writing teachers, this description covers almost every undergraduate and graduate project we assign. In response to our questions concerning specific projects (including, we might add, a memoir assignment), the IRB had a standard response: "That would need approval."

While the stated turnaround time is two weeks, one of our graduate students finished her IRB Review Request in late October; one month after she graduated, she received an e-mail message saying that her final project "posed no risks to human subjects." Because university regulations state that we are not supposed to start projects without IRB approval, this could have jeopardized her degree.

The Review Request form states, "Describe how the data collected from this sample will be kept confidential while using it, collecting it, storing it, and disposing of it." As is pointed out in a "For the Record" article in the May/June 2002 issue of *Academe*, destroying records and notes prevents researchers from doing any longitudinal studies or from revisiting their data for new conclusions.

The confidentiality requirement has hampered our efforts to supervise graduate projects. A graduate student decided to abandon her thesis project on investigating new teacher fears due to IRB concerns about a supervising teacher reviewing data. The IRB suggested two options: 1. the teacher never look at the data or 2. the student do her research in another department.

We have noticed increasing discussion among graduate students that they will not do certain projects because of IRB delays, conflicts, and the endless amount of paperwork.

We are uncertain—and the IRB is too—about the status of graduate

research projects begun in a classroom and then developed into thesis projects.

In response, the graduate committee has drafted a position statement describing which projects we believe should be submitted for IRB review and which projects should be exempted (Appendix B); however, we are acutely aware that acceptance of this position statement rests solely on IRB approval, and it carries little or no weight.

We would like to discuss with other conference participants how departments, our field in general, and CPTSC should proactively respond to IRB regulations and policies. We would also like to discuss the feasibility of CPTSC developing a position statement regarding this matter, similar to the various organizational statements like the WPA's "Portland Resolution" or "Statement on Intellectual Work."

Appendix A

University of Arkansas at Little Rock
Institutional Review Board

A Student's Guide to
Using Human Subjects in Research

- **What is the UALR policy regarding the use of human subjects in research?**

  All research involving human subjects conducted by faculty, staff, or students of the University of Arkansas at Little Rock (UALR) must be reviewed and approved by the UALR Institutional Review Board (IRB). The UALR IRB operates according to the guidelines in the Code of Federal Regulations (45CFR46) and other state and institutional guidelines.

- **What does the IRB do?**

  It is the responsibility of the IRB to review research protocols involving human subjects to ensure that the rights of the human subjects are protected, that they are not subject to unreasonable harm (physical and emotional), and that information about them is kept confidential.

- **What is research?**

  Research means any systematic investigation, including pilot research, testing and evaluation, that is designed to develop or contribute to academic and disciplinary knowledge. Activities that meet this definition constitute research for purposes of this policy.

- **What is a human subject?**

  Human subject means a living individual about whom an investigator conducting research obtains data through observation, intervention or interaction with the individual, or through identifiable private information.

- **How do I know if I should submit a research protocol to the IRB?**

  If your research project (including observation, interviews and surveys) involves human subjects you must submit an IRB Review request form.

- **When should I submit my review request to the IRB?**
  You should submit your request after the final research design has been determined. You must receive IRB approval **before** you begin the research project.

- **What do I submit?**

  Complete an IRB Review Request form. IRB Review Request forms are available at the Office of Research and Sponsored Programs, 205 Administration North. The forms are also available electronically on the ORSP website (www.ualr.edu/~orsp).

  You must also submit a letter of informed consent (or survey cover letter) and any tests, surveys, or interview questions you will be using in your study.

- **What is informed consent?**

  Informed consent is generally obtained through a letter that fully identifies the researcher(s), discloses the nature of the research, explains the risks (both physical and psychological) and benefits, and allows the individual to voluntarily decide whether to participate in the research study or not.

- **To whom do I submit my request?**

  IRB review requests may be submitted electronically or in hard copy. If submitted electronically, e-mail it to at XXXXX@ualr.edu. If you submit hard copy send it to

  XXX XXXXXX, Associate Director
  Human Subjects Compliance Officer
  Office of Research and Sponsored Programs
  205 Administration North

- **What happens after I submit my IRB Review Request?**

  Once the request is submitted it will be processed and routed to the IRB. Most "expedited review" requests will be processed within one month.

- **How will I be notified of the status of my request?**

  You will receive an official written memorandum from the chair of the IRB committee regarding your approval status. Notification will be made through e-mail or regular mail.

- **What is the best way to prepare my IRB Review request?**

  You should work closely with your faculty advisor well in advance of beginning the actual research.

Appendix B

Rhetoric and Writing Department, UALR

IRB Position Statement

(Draft—January 18, 2002)

- All undergraduate projects are exempt from IRB procedures because such projects are designed to develop research and writing skills, not to develop or contribute to academic and disciplinary knowledge.

- All graduate projects, prior to the final project (thesis), will be exempt from IRB procedures for the same reason, unless the professor deems informed consent essential to protect the student and the human subjects of the research.

- MA students will seek IRB approval if the Graduate Committee determines that the project will develop or contribute to academic or disciplinary knowledge.

Technical Communication: A Discipline in Need of More Empirical Inquiry

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University of Wisconsin–Milwaukee

An overview

Technical Communication is an academic discipline in need of self-reflexive critique. Specifically, we need to acknowledge and examine the lack of empirical research into the practices of the classrooms and worksites that define our students' current and future experience. Operating from a self-reflexive stance, we need to look at the causes and consequences of this lack of empirical research and use this analysis as step towards taking up a more research-oriented posture as a discipline.

The argument in full

Some assumptions:

We need to know much more about what students experience in our Technical Communication classrooms and about what our graduates experience in the worksites they enter as technical communicators. To mature as a discipline, Technical Communication needs the empirical research that would allow us to develop an extensive body of field-specific "grounded theory" (Glaser & Strauss, 1967; Strauss & Corbin, 1998), that is, theory derived from data that have been systematically gathered and analyzed through empirical research in a range of classrooms and worksites. This research and theory would allow us to address three issues that are fundamental to our curricula and pedagogy:

- Significance—Are the versions of technical communication practices that we build into our curricula similar, or at least highly relevant, to the practices our students will encounter in worksites after graduation?
- Learnability—If the answer to the first question is yes, are our students successfully learning these technical communication practices in our classrooms?
- Applicability— If the answer to the above questions is yes, are our students able to apply and extend what they have learned in our classrooms to the professional demands they face in the workplace?

The problem:

Compared to related disciplines—such as, for example, applied linguistics, education, and ESL writing—technical communication does not sufficiently promote empirical research. Much of the empirical research conducted in our discipline is done by graduate students for theses and dissertations. There isn't a great deal of post-dissertation research activity. We have too few tenured faculty doing serious empirical research throughout their careers (though some might produce edited collections of empirical studies based largely on dissertation research). Further, those in the field who consult in industry don't use these experiences frequently enough as opportunities for

workplace research. And in the publications of our field, empirical studies are much less common than speculative commentaries on issues such as ethics, current and future developments in the discipline, and so on. While we certainly need such commentaries, the relative dearth of empirical research leaves technical communication in a weakened position.

Possible causes:

The culture of technical communication doesn't sufficiently encourage and reward empirical research, so that we have a large population of tenured faculty who do little field research. Why is this? One reason may be that our disciplinary culture has been adversely influenced by its close association with Literature Studies, where empirical research is extremely rare. Indeed, one might speculate that some of our Literature colleagues do not want us to be taken seriously as an independent discipline, and that it serves them well for us to remain a field where relatively little empirical research is conducted. Of course another reason for the scarcity of empirical research may be the resources of time, effort, and financial support it can require. Yet faculty in disciplines such as applied linguistics, education, and ESL writing manage to find the necessary resources, and I believe we could too if we were so inclined.

Consequences:

Because of the lack of indigenous research and grounded theory, we end up importing too much research and theory from other fields (while some of this kind of importing is healthy for a discipline, I would suggest that too much is symptomatic of a problem). And most significantly, our curricula and pedagogies suffer, so that our students are not as prepared as they might be for their future careers as technical communicators.

The change that's needed:

We need to change our disciplinary culture so that the expectation—and practice—will be that more academics in Technical Communication continue to do empirical research throughout their careers. Reorienting the discipline in this way would allow us to develop a body of field-specific "grounded theory" to support our curricula and pedagogy.

Concurrent Session 4

A: Tech. Comm. & Its Neighbors: Academy and Industry

Sticking to Skills/Considering Ethics

Barbara Gordon Elon University

Nearly any faculty member who is a part of a technical scientific communication program is elated when a student lands a high paying, interesting job where she or he can put to use honed writing abilities and employ new media to deftly accomplish assignments. It is gratifying to prepare a graduate capable of doing whatever an employer might request, capable of going even beyond what the employer could have imagined.

Now imagine this young writer, one of your graduates, employed by a large pharmaceutical company. Her project manager has asked her to help create a website for the lay public and pamphlets for physicians about a cancer drug, perhaps a drug like Tamoxifen/Nolvadex, a medication that is known to reduce the recurrence of breast cancer, and one that has recently been found to decrease the possibility of developing breast cancer. A competitor has a drug that does likewise, a new, less tested drug, one that appears to have fewer side effects.

Here your former student runs into trouble. She is well prepared to translate the scientific terminology into information that the public will understand in a user-friendly manner. She has acquired enough medical background to write intelligently to oncologists about pharmaceutical research, but she finds herself procrastinating and becoming discontent. Before long, it becomes clear to her that an ethical dilemma is hampering her work.

She realizes that the company she works for has created a life extending, possibly, life saving drug. On the other hand, she fears the company, and her work by extension, may be preying on women's fears to take a drug when a better one exists, or perhaps to take a drug unnecessarily. The competitors more recent medication, so far, has been found to be safer and more effective, though that drug has not been fully tested in long term clinical trials. If she had breast cancer, she would be taking the competitor's medication. She also thinks of a friend who has a history of breast cancer in her family. Is it OK to encourage women, like her friend, who don't have breast cancer to ask their gynecologists about taking her company's medication as a means of "life insurance?" She knows some doctors will prescribe medicine based on patients' demands when it is not the wisest medical decision. Might her company be pushing a drug with potential harmful side effects on a scared public?

She would like to create a website and pamphlets that will meet the boss's requirements, and not exploit women. She hopes to convince her boss that it is in the best interests of the company to make clear to patients and doctors alike this drug's dangers and limitations even though this will decrease sales. She doubts this is possible. She becomes acutely aware that projects are not isolated from larger issues, issues that relate to the well being of others, and herself. She knows through her

conscience that it is not only the "text" itself that matters, but where it appears, when it appears, why it appears, and what impact it may have.

Her formal education did not prepare her for this ethical dilemma. As faculty preparing professional communicators, our dilemma is - should it have? Are we responsible for incorporating into our courses ethical dilemmas our students might likely face in their employment as technical and scientific writers?

In technical and scientific writing programs should we aspire to Quintillion's "the good person speaking well?" In various ways all programs teach logos, pathos, and ethos to suit particular rhetorical situations. Should we be sure to discuss with students issues such as creating a false ethos for an organization? Should we draw their attention to the distinction between seeming to be the good person/organization and really being the good person/organization? In doing so, might we be making our students better human beings, but less employable?

Should we attempt to instill the ethic that with skill/power comes responsibility? How would we define that responsibility? Could we be in danger of being righteousness and advocating personal morality? Are ethical issues our responsibility, or should the liberal arts general distribution requirements tackle issues of humanity? If we don't weave ethics into our courses, are we mainly teaching skills? If our programs do not promote a humane perspective, do they belong in a professional school rather than in the liberal arts?

Few people would argue that technical and scientific communication curricula should provide students with the background necessary to get a job, stay employed, and meet employers' needs. Should we, though, call upon students to consider interrelationships such as organizations' roles in society, and the employees' roles and responsibility in organizations, and their responsibility to themselves, their loved ones, and fellow beings? Should and can we help students learn to hold a job, to weigh ethical consequences, and to foster change in a manner that makes the world better for others, or at least does little harm?

Binary Tension in Teaching/Practicing/Researching/Producing in Academies/Industry

TyAnna Herrington
Jessica Cunard-Hunter

Georgia Institute of Technology
Multimedia Designer

The theory/practice binary occurs naturally when addressing issues in intellectual property. But it also creates supposed binary oppositions in teaching/research and academy/industry, that reflect many of the same concerns addressed in programmatic development in technical communication study.

Graduate programs that train students to become technical communicators, multimedia designers, graphic artists, and digital film creators provide education for individuals with dual roles. As creators, particularly in their roles as students, they have an interest in using intellectual products (often building from those of others) to meet educational goals. By law, Americans participating in educational processes within the USA have a right to use copyrighted materials in order to support learning processes. (This right is qualified by various factors, ensuring that no harm comes to copyright holders.) But these students will also become intellectual product creators whose interests in protecting their own copyrighted work will be heightened once their livelihoods depend on their work. And as creators working outside the educational process, their lawfully supported access to and use of intellectual products will be lessened.

Teaching about issues in intellectual property (as with other educational practices) allows room not only to use intellectual products more broadly, but it allows a place to teach about the more theoretical, policy-oriented issues regarding the law. It allows space to ask students to question, criticize, and analyze effects of existing law. Students and educators excel at this kind of teaching and research within academic forums, but once we move outside the academy, the other side of the academy/industry binary requires that we understand intellectual property issues in a different dimension. Thus, in industry (whether the academic industry or otherwise), we are rewarded for practicing behavior that treats intellectual products with the care of a pragmatist, using as much of another's product as is legally safe, and protecting our own intellectual products with as much legal and rhetorical armor as possible.

This scenario, played out in every technical communication program across the country, both reflects and illustrates the necessity that programs allow room for complementary duality in theory/practice, teaching/research, and academy/industry. The challenge is to create technical communication programs that not only allow room for, but support the duality necessary for robust programs that provide for the varied needs of all students and educators both during their time in academia as well as their lives beyond.

In our (not so) binary roles as academic educator/researcher and former graduate student/now practicing multimedia designer, we propose to provide theoretical and pragmatic perspectives of the dual nature of intellectual property as a means to reflect on programmatic needs in technical communication programs.

The Gap between Old and New: Technology and Traditional Scholarship

Terri Palmer Carnegie Mellon University

I served as webmaster for the Carnegie Mellon Department of English this past academic year. My primary task was to commission a designer to create a more contemporary look for the English department website; my secondary task was to maintain the current website and help department members with their web questions, which ranged from putting teaching materials online to putting personal and programmatic information on the site for potential students and colleagues.

In the course of this year, I found that the questions I had expected, the "how do I do X" type, far less troublesome than those I hadn't. These unexpected questions stemmed less from technical difficulties than from the intellectual changes that arise from moving materials to electronic form: How could it be that an online database could legally distribute a given faculty member's work without his explicit permission? To what degree can I trust a website for its research about a writer? Who permits such websites to be created? Why is this website design, which resembles traditional print, not preferable to this more recent design?

In short, the transition from traditional print media to online media has posed a set of new difficulties I would not have foreseen. I worked for the computer science department at my undergraduate institution and had long been familiar with such issues. Coming in as something of an outsider (not entirely, as I worked for the computer science department while an English major) I thought that technology issues within humanities departments would focus on ease of use. However, I have since come to realize that as more and more documents are put into electronic form that there are at least two major issues that must be faced:

Authority and copyright: How do traditional copyright laws apply to new media? More importantly, how is authority established in a medium where, in theory, anyone at all can write about a topic? Ought scholars only to turn to approved websites that run along traditional lines—academic, peer-reviewed journals and well-known publishers who elect to provide material online? And if that is the case, if online publishing merely replicates print publishing, is there any benefit at all to online publishing, besides speed, which itself is often offset by the difficulties of working with very new technology?

Design and aesthetics: Web design in particular seems to undergo a revolution every two years or so, often relying upon new technologies to do so (witness the number of sites that now depend on Flash animations). What does this mean for scholars who are not particularly interested in online communication but wish to be able to talk to their students and colleagues who are interested and who incorporate the most recent aesthetics into their own work? Scholars who don't pay attention to these trends

often find the newer designs confusing and ugly, and yet English departments must work within those stylistic confines in order to communicate with students and industry.

I have come to some private conclusions about these issues, but I am concerned that these questions are often ignored in the rush to adopt new technologies. While those of us who do work closely with technology may find the above concerns odd or irrelevant, I have not found this to be the case with more traditional scholars (and this is not sheerly a gap of age; as many of the graduate students asked such questions as faculty). It's my firm belief now that dealing with these problems is as much a part of a technical communicator's job in dealing with more traditional scholars as is teaching the simpler how-tos of getting new technologies to function. From the other direction, too, I think we need to discuss these issues with students, who often see no problems whatsoever with blithely quoting dubious websites as part of their research for a paper or who design sites that only readers with fast Internet connections and the newest browsers and plug-ins can even view. In other words, I propose that a substantial part of a technical communicator's job now concerns online ethics and authority—and that this is far too often neglected.

Death and Resurrection: The Viability of Reinstating an MS/MA in Scientific and Technical Communication in a Service Milieu

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In the 1990s, the growing development and use of information technology as an integral part of the United States economy led to increasing demands for skills in scientific and technical communication. This increase in demand, in turn, encouraged further development of technical communication as a specialized professional field. Within this context, it seems surprising that a master's program in scientific and technical communication should falter and die. But that is what happened at Oregon State University.

Perhaps the death of such a program would be more understandable if there had been strong competition from other Universities or if the University itself was dedicated to the pursuit of the liberal arts with little interest in technical or professional education. However, at Oregon State University, neither of these conditions existed. Up until its suspension, the Scientific and Technical Communication master's degree program was the only one offered in Oregon. Presently, only one other similar program at the master's level exists in Oregon, and there are only two other such programs offered in the Pacific Northwest. As a land-grant, sea-grant and space-grant institution, OSU is strongly focused on science and technology as it relates to industry and the professions. And as such, scientific and technical communication should have been a valued and integral component to the educational programs offered at OSU.

The Scientific and Technical Communication masters program was founded in 1990. It was intended to be an interdisciplinary program with four departments, Art, Journalism, Speech Communications, and English, playing key supporting roles in its program. The same year it was founded, however, the State enacted a measure which resulted in substantial financial cuts to University budgets. In response, OSU eliminated its journalism program. The other participating departments also experienced budget decreases and loss of faculty, and, as a result, declined to commit funds and faculty to a program that was viewed as peripheral to their own. The work for the running program fell primarily on the director, a position with little to no compensation. The program survived as long as it did largely through the efforts of its original director. With the retirement of that individual, the program seriously faltered.

The question of whether or not this program should or can be resurrected brings to the fore the binary tension between service and professional education. I argue here that as long as the program is seen as carrying out a service function, support for it will always be wanting. Housed in the College of Liberal Arts, the program, as its history indicates, continually struggled against a culture of poverty. The constant decline in financial support for public

Universities (and particularly those in Oregon) has only exacerbated the suspicion and distrust of professional education that can occur within a humanities centered college which feels itself beleaguered and devalued by its scientific and technological counterparts. Often, within such an environment, faculty who have a traditional humanities focus view professional education as workplace training and see it as antithetical to academic scholarship. In such a culture, there is an unwillingness to dedicate resources and funding to a technical writing program. Instead, it is assumed that the program will garner support from the departments that would benefit from the service such a program would provide.

A survey of heads of departments, however, strongly suggests otherwise. When asked if technical communications skills were important to their students, 91% of respondents agreed or strongly agreed, but only 69% indicated that their students needed courses in scientific and technical communication (at most one or two courses); of these, 15% indicated that they provided such courses for their students. Only 8% of respondents indicated that OSU should have a master's program. When asked if they would consider providing support to such a program, most indicated that they would only recommend students to the program (61%) or participate on a curriculum committee (30%). A few indicated they would provide classroom space (15%) or student advising (7%), but none indicated a willingness to provide computer labs, faculty, or funding.

In a review of the program, a graduate council committee noted that many of the resources that were needed to support the program had never been granted. They also observed that there had been no mission statement or shared vision for the program. When the director had proposed curriculum changes for the program in 1999 to an advisory committee, the committee was unable to agree on the role of the program and, as a result, unable to reach consensus on needed changes. In its final report, the graduate council review committee argued that "there are many good reasons for a STC program at OSU, given the mission of the university, the demand for such training (evidenced by successful programs elsewhere), the enthusiasm of present students (despite the program's problems), the support it could provide to other disciplines at OSU" (5). In the end, the review committee recommended that the College of Liberal Arts and the three remaining participating departments "convene a strategic planning session to examine the state of the program" and "decide whether or not it should be continued" (5).

As a result of the review committee's report, the program was put under suspension. No action was taken by the dean of the College of Liberal Arts to follow up on the recommendations. Instead, the college focused its energy on starting a new media program. For this program, the university allocated $500, 000 and the college hired a full-time director. Efforts to initiate a process for developing a strategic plan for reinstating the STC program were met with minimal interest and with claims that budget cuts would make it difficult to restart the program.

Such a response suggests that the resurrection and survival of the STC master's program is not possible within this context. Deemed as "training" and

given value primarily in terms of the "the support it could provide to other disciplines at OSU" (5) the program is destined always to lack appropriate resources and funding. Resurrection and survival of the program may depend on defining it as a professional degree and seeking the primary and ongoing support from outside the institution. But this would require administrators with vision and a willingness to work for innovative solutions.

Works Cited

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Supervising Adjunct Instructors: Reflections of a New, Tenure-Track Professional Writing Coordinator at a Small Comprehensive University

David Alan Sapp Fairfield University

The increasing popularity of technical, scientific, and business writing has caused many small, comprehensive universities and liberal arts colleges to scramble to hire qualified full-time tenure-track faculty. Many of these institutions attempt to entice candidates by offering them decision-making power that they would not have at larger universities with established graduate programs. Candidates are often drawn to these offers in order to develop programs in ways, and at a pace, that would not necessarily be possible (or wise) at larger institutions. However, these faculty members, many of whom are fresh out of the very few doctoral programs in our discipline, face unexpected challenges when asked to direct new professional writing minors, concentrations, emphases, or certificate programs. These challenges are related to tensions involving the past and future of English departments, complicated by age-old struggles between literature and composition, and renewed by recent growth in the areas of technical and professional writing. These faculty members also face challenges related to dialectical tensions between faculty and administrative roles, which may lead to additional tensions regarding workers' rights and program integrity.

Many new tenure-track faculty members, who also serve as coordinators of technical and professional writing programs at small colleges and universities, face challenges beyond the research, teaching, and service expected of other assistant professors. These obstacles include tremendous amounts of administrative service such as developing and promoting specialized courses, preparing schedules, managing budgets, and securing internal and external funding. Perhaps one of the most challenging tasks related to these faculty positions involves the hiring, training, supervision, and retention of qualified part-time instructors.

During my first year as coordinator of professional writing in the Department of English at Fairfield University, for example, I was expected to supervise several clearly under-qualified part-time instructors, some of whom had taught business and technical writing at our university for a decade or more with little guidance or supervision. This reflects several aspects of English Department histories. First, it illustrates that even traditional English programs like ours realize that professional writing classes are in demand, but often add such courses to curricula with little thought or strategic planning. Second, the situation at my university reveals a common situation: many literature faculty either do not care about the fate of writing courses and programs, and/or they believe that anyone can teach these courses regardless of academic or professional preparation. In other words, some of these under-qualified instructors have undergraduate degrees in English

(usually literature) and some business experience, but they have absolutely no training in writing theory or pedagogy and no coursework in technical, professional, or scientific communication.

Only a few months after I arrived in Connecticut, I was faced with the duty of "gently releasing" two adjunct instructors in order to replace them with more highly-qualified instructors who I'd found through an extensive local job search. My doctoral program in rhetoric and professional communication had not prepared me for such administrative duties. In fact, I soon learned that this task was potentially detrimental to my career. For example, my efforts to inform one instructor that her semester-to-semester contract would not be renewed were met with violent threats. During this process, I do not feel that I received necessary support from faculty colleagues (both full-time faculty and my department chair). When I asked my department chair for advice on this matter, she informed me, "This is what we brought you here to do." At the time, I interpreted her response as support and acknowledgement of my role-related authority, but I later learned that for several years, one of the faculty coordinators had been shifting unsuccessful or under-qualified part-time instructors from other areas in the English department into professional writing courses where there was no full-time faculty coordinator. The department, with an overwhelmingly powerful literature faculty, seemed to fear repercussions from part-time faculty whose contracts were not renewed, so instead, part-time faculty members who earned low teaching evaluations, refused to hold office hours, or missed an excessive number of class meetings each semester were often shifted into the professional writing concentration. Thus, the nascent professional writing program had become a dumping ground for adjunct instructors at the exact same time as it was becoming more and more popular with students who realized that these courses would be beneficial for their academic and professional development.

Another situation I encountered upon my arrival concerned a part-time faculty member who had taught at the university since 1986 and was an alumna (from another department). When she, among many other things, refused my request for her to schedule any office hours and insisted that there were no good textbooks "out there" in business communication (and thus refused to use any textbook), I decided to inform her that her contract would not be renewed for the following semester. Perhaps this was not the wisest decision. This instructor confronted my department chair and even the university president, telling them that I didn't know what I was doing. She eventually threatened to sue both the university and me. This turned out to be a pattern among adjunct instructors, who have resisted changes implemented by younger full-time faculty, with our "worthless Ph.D.'s."

These situations point to a challenge for new, untenured coordinators of professional writing programs. There is clearly an issue of justice related to excusing long-standing adjunct instructors. While these instructors may not have been effective, with little to no supervision or feedback, they have also had no opportunities for professional development. Ostensibly, these renewable contract positions offer no

promise of job security; yet an adjunct instructor who has taught the same course for 15 or more years has justifiably come to expect a certain amount of security and institutional loyalty. Nevertheless, the increasingly rigorous academic training of professional and technical writing faculty, along with the growth and increasing supervision of professional writing programs necessitates change and a corresponding increase in program integrity. This will certainly result in a sloughing off of ineffective and underqualified personnel. This tension is increased when the new program director is a young, fresh-out Ph.D. who is a newcomer to an institution and untenured.

I would argue that these experiences illustrate a moment of transition within our discipline. As smaller institutions start up professional writing programs, and do so by hiring just one junior faculty member, this leaves faculty in a vulnerable situation, and guidance from organizations like the CPTSC becomes crucial. This guidance can first be in the form of conferences and workshops; the CPTSC can also take a leadership role in the professional development of young, untenured, professional writing program directors. Second, the CPTSC might organize formal mentorship networks to alleviate the problem of isolation felt by professional writing faculty and program directors at small colleges and universities, where an increasing number of individual tenure-track lines are being added to departments dominated by literature and creative writing faculty. Additionally, the CPTSC can promote research about the structure, curriculum, and leadership of professional writing programs nationwide. These suggestions are clearly in line with the mission of the CPTSC.

The Mechanics and Politics of Teaching with Technology Certificates

Stuart Selber Penn State

At Penn State, all graduate students from any academic department can earn a non-credit Teaching with Technology certificate. This certificate is awarded by the graduate school and supported by the Center for Academic Computing and the departments that have chosen to participate. We decided to participate because the certificate provides an impetus for us to get more serious about technology education. As the departmental representative for English, I help graduate students negotiate the process of earning the certificate, which is relatively straightforward.

They first contact me so that we can go over the requirements as well as the criteria that will be used for assessment. In order to earn the certificate, a graduate student creates an online teaching portfolio that includes the following elements: a philosophy of teaching statement that focuses on the role of technology in education; a professional home page that includes a curriculum vitae; evidence of online course materials that are available outside of the classroom; evidence that technology has been integrated into actual teaching situations, including evaluative reflections on how things went; evidence that multiple media have been integrated into actual teaching situations; and evidence of the use of technology that can support progressive pedagogical methods. Once we have looked at these requirements, many of which are flexible given that they can be fulfilled in several different ways, we create an educational plan that should lead to student success.

Because the certificate is a non-credit certificate there are no prerequisites or curricular conditions that must be satisfied, which means that advanced graduate students could, in theory, proceed to develop their online portfolios at their own pace. However, most graduate students are not quite ready to proceed without help, so I variously provide them with reading lists, advise them into appropriate seminars, encourage them to sit in on appropriate teaching methods courses, advise them into technology training sessions, and subscribe them to a Listserv list associated with the certificate so that they can ask questions and learn from each other.

Once a graduate student has pulled together a draft of their online portfolio, it gets reviewed by me and by an instructional designer in the Center for Academic Computing who has thought long and hard about the complications of teaching with technology. After the portfolio has been revised to our satisfaction, I constitute a small departmental committee that takes one last look at its contents, being sure to keep in mind the assessment criteria that students have been given. The final portfolio is sent from the English department to the graduate school where it must also be approved.

Because a teaching with technology certificate can be so deceptively difficult to earn, many of the graduate students who initially sign on eventually self-select themselves out of the process. I think this is absolutely fine, for I want the certificate to signify a considerable educational achievement. But for those graduate students who are serious, the institutionalized nature of the initiative commits the English department to continuous improvement in the quality of its opportunities for technology education and support.

"Conducting" Graduate Programs in Technical Communication

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The binary of skill vs. conduct has arisen in technical communication for well over two decades. Often couched in terms of the classical Greek concepts of techne vs. phronesis, the argument has been made that technical communicators, whether in education or the industrial workplace, are caught within this binary tension.

In most cases, the preferred side of the binary has been that of conduct. Most scholarship has tended to argue that we have spent too much time teaching or using the skills of our trade, and precious little thinking through what it means to conduct ourselves within a given community or sphere of influence. Often, the argument is posed in terms of ethics. That is, conduct is represented in the scholarship as involving ethical action, while skill or techne is presented as a base form of knowledge that can allow individuals to practice their craft apart from ethical concerns.

Most of the time, when we ask questions of conduct vs. skill, we concern ourselves with issues of individual teaching or workplace practices. The problem, then, becomes one of answering questions such as: What can we do to bring issues of conduct into individual courses? How can a curriculum embrace and teach ethics? These are important questions as they demonstrate technical communication's commitment to developing programs that are balanced and, hopefully, work across the conduct/skills binary.

In my presentation, however, I would like to use this binary tension to ask another question: As we develop more and more graduate programs (master's and Ph.D.), how are we conducting ourselves? Are we honestly asking ourselves about the ethics of developing new programs? For instance, the number of master's programs has grown from six in 1983 to nearly one hundred today. Ph.D. programs have seen similar percentages of growth, and new ones are being planned all the time. Do we have faculty who are adequately prepared to staff these programs? Do we have the resources to support the students and the programs themselves? Will we eventually create a glut of graduates, similar to many other disciplines in the past several decades?

Adding the "Universe of Users" to Usability Testing and Field Research: A Call for Change in the Academy and Industry

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The technical communication industry and many academic programs are currently concerned with user-centered product design and development. Technical communicators in industry and the academy are increasingly using field methods, such as contextual inquiry, participatory design, and ethnography, to better understand the relationships between user and technology (Spinuzzi 419). Likewise, usability testing is now a "common requirement in many technical communication development cycles" (Hughes 488). Proponents value these methods as part of the user-oriented product design and development process. In usability testing, like the field methods, Dumas and Redish argue we must focus on the users and we must "know, understand, and work with" these users (5). But researchers and designers who apply usability testing and contextual inquiry, as the methods are commonly conceived, only begin to know, understand, and work with the actual users.

While "user-centered" is a good idea, the notion of "user" as one single entity doesn't allow for differences, like age, sex, socially constructed gender, culture, education, or socioeconomic status. Although various research studies outside of field research in technical communication have found differences in these populations, few field research studies in technical communication have acknowledged these differences. In fact, usability testing and contextual inquiry results are often applied and analyzed in such a way that the research results point towards a "universal user" and not the differences in the true "universe of users." For instance, usability testing results of different users are commonly combined into "the user" and might include information like the time it took "the user" to complete a task or the number of errors made while completing a task. This consolidation creates a representative universal user and ignores any differences among the users. Contextual inquiry builds affinity diagrams, models (flow, sequence, artifact, etc.), and other methods of displaying and analyzing data. Like usability testing, the results in these diagrams and models often discuss "the user" (also "the workplace, "the context" and more). The outcome of this consolidation is the creation of a representative "universal user" which marginalizes all the user differences. As a consequence, the full universe of users with users' differences is ignored.

Literature and scholarship within technical communication does not always ignore the differences of the users. For instance, Carol Barnum suggests that in usability testing testers should consider such differences as gender and age (159). But there are often problems with the depth of the consideration of differences. Although the authors frequently argue that we should address the differences in our audience and users,

they only suggest we do so by categorizing broad groups of the users/audiences that rely on a simple and shallow understanding of demographics rather than a more complex and deeper understanding of how human activity works. This shallow consideration of the universal user leads to superficial differences that mask the underlying sameness instead of focusing on the universe of actual users. As a result many in technical communication are still creating and focusing on the "universal user" instead of the broader, diverse universe of users.

As many researchers, especially feminist researchers, along with social constructionist, cultural, and postmodern researchers, have shown, universalizing is problematic. Carol Gilligan argues that previous work in moral development only considered males and universalized the findings for all humans (9). The previous research ignored women's very different moral development process and led to theories that only represented males. Another example of universalization can be found in computer-simulated 3D mazes, which are normally designed for the universal user, males. Carol A. Lawton found that women were less accurate navigating in the computer-simulated 3D mazes, as shown through higher number of pointing errors (pointing toward unseen environmental reference points) (13). The accuracy issues of the females are due to the fact these 3D mazes are designed for the universal user's method of navigation—male methods. The female method is different and disadvantaged in mazes not designed to value these differences. Ann Brady Aschauer discusses the results of this user/audience universalization with technology. She suggests that men are the users the technology is designed for, and as a result women may "feel uncomfortable using technology in conventional ways" because those "conventional," male-oriented ways do not match women's preferred ways of using technology (7). These three examples show the problems of universalizing one type of difference: gender/sex. As Susanne Bødker, Kaj Grønæk, and Morten Kyng state "Different types of users will need different things from the application" (158). Clearly, universalizing will ignore many other differences like culture, age, and socioeconomic status, and disadvantage these other differences in our audience and users, as much as it disadvantages women in these three examples.

Without attention to the true "universe of users" for the products we are designing and developing, we will not be designing user-oriented products, and thus not meeting the goal of many technical communicators. For instance, the universalizing of the users can have many other negative results beyond the problems discussed above. Researchers or designers who apply a design/research process with a universal user may cause many problems such as:

- Creating a design cycle that only designs for the dominant users who are the universal user.
- Inhibiting other user types from becoming users of the technology by creating technology that does not fit their work practices.
- Ignoring some types of current users from categories other than those the researchers are examining.

- Blending what variety does exist across users to create "the user" and "the work," thus losing individual and small group differences.
- Disadvantaging nondominant key users by not giving them a voice in the technology design and not creating a product to fit their work practices.

The problem of universalized users in field research is a result of a split between the theories of our field and the practice. Although usability testing and field methods are based in more recent and popular theories like social constructionism, the researchers using these methods do not fully apply the theories. However through programmatic changes in how we apply and analyze usability testing and field methods and through a more thorough application of many of the theories of our field, we can easily research and design for the "universe of users." This change from the problematic universal user to the stronger and more appropriate universe of users is necessary and will enable us to focus on our true users/audiences—our universe of users. Some programmatic changes that we can adopt are:

- Clearly apply the theories of our field to our research. Include classes that encourage theoretical discussion of our research methods, techniques, and types.
- Require or incorporate theory and research classes into our curriculum that focus on, or at least acknowledge differences and "others" like postmodernism, social constructionism, feminist studies, and gay and lesbian studies.
- Include an examination and consideration of user differences into our field methods classes and teach our students to (while making sure we also):
    - Look at the types of the current users.
    - Examine differences in user types.
    - Consider own biases.
    - Value all users.
    - Make results representative of the universe of users.
    - Consider creating various work models (when the investigation methods requires work models) instead of a universal model.
    - Remember future users.
- Through our program and curriculum avoid, and teach our students to avoid, singular terms. Elizabeth Minnich suggests that singular terms "lead directly to singular abstract notions… Such singularity makes thinking of plurality, let alone diversity, very difficult indeed" (450).
- Incorporate feminist methods and techniques of considering differences into our program including:
    - Interstanding: Michelle Ballif, Diane Davis, and Roxanne Mountford suggests listening to "the other" and "*inter*standing, or glimpsing what lies between" the self and other (587).

- Mestiza: Gloria Anzaldúa discusses the development of a new Borderlands consciousness, the mestiza, which is a hybrid of cultures and races. If we seriously look at our audiences, our users, and even ourselves, we will see something of the mestiza straddling cultures and borders. She suggests we tolerate differences and contradictions, remain flexible, and do not allow rigid boundaries. She contends we should move "away from set patterns and goals and toward a more whole perspective, one that includes rather than excludes" (399).

These programmatic changes allow us, and those in our programs, a deeper understanding of our audiences and users, and not the simple and shallow understanding we obtain through demographics and other problematic means. By adopting these methods we can teach our students to consider true differences, and not be limited to a universal user or to superficial differences. Integrating these methods into our programs will change our work, research, and theories of technical communication by making make user-centered design appropriate for our "universe of users."

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Recruiting New Faculty? Change Your Rhetorical Perspective

Kelli Cargile Cook Utah State University

More and more, technical communicators have come to identify themselves as user advocates who recognize audience needs and produce documents that meet those needs. Consequently, one of the fundamental lessons in technical communication courses is to ask students to identify their audience's perspective, recognize its needs, and then create documents that address those needs. Yet, many program directors and members of technical communication faculties often neglect this basic rhetorical lesson when the time comes to write position announcements that recruit new faculty members.

As a genre, position announcements, especially those from academic departments with traditionally large candidate pools, are most frequently written from the recruiting department's perspective. These announcements, which commonly list the department's "expertise wish list," often do not include other information of primary interest to prospective job candidates. As a result, such announcements fail to address the needs of their intended audience and are less effective in recruiting candidates.

To improve position announcements and their ability to recruit talented faculty, this article suggests that recruitment marketing strategies can be used as a method to improve recruitment of technical, scientific, and professional communication faculty. To illustrate how recruitment marketing strategies might change traditional position announcements, the presentation analyzes the traditional, departmentally focused position announcement, and then suggests a number of revisions that will make announcements more candidate-centered and potentially more effective.

Recruitment marketing

In general, recruitment marketing is a means of attracting and recruiting job candidates (Breaugh and Starke; Ryan, Gubern, and Rodriguez; Sewell). More specifically, it is a method for recruiting faculty in a tight or "hot" job market. Used as a rhetorical tool, recruitment marketing can help persuade job candidates that an institution has value not available in other organizations. In rhetorical terms, recruitment marketing means re-evaluating the position announcement as a rhetorical document aimed at persuading an identifiable, specific audience—potential job candidates. In other words, it means centering the position announcement on candidates and their needs, not solely on the department and its needs.

The departmentally centered position announcement

A content analysis of 59 position announcements posted September 23, 2002, in the Modern Language Association's Job Information List (JIL) illustrates how departmentally centered (rather than candidate-centered) traditional position announcements are. The content analysis revealed five

components in JIL postings for technical, scientific, and professional communication job announcements:

1. Institution name and website
2. Position information (title, responsibilities, duties, start date)
3. Candidate qualifications (educational requirements, expertise, and/or experience)
4. Application requirements and contact/mailing information
5. AA/EO statement

The following example illustrates these five components (Labels appear in bold font and are set off in brackets):

Institution Name **[Institutional information]**
Address/Website **[Institutional information]**
Assistant Professor **[Position information]**

> Rhetoric & Composition with Prof. & Tech. Writing Specialty. Tenure-track position, nine-month appointment with summer teaching possible**.** Competitive salary. **[Position information]** Qualifications: earned doctorate in English by date of employment with a specialization in rhetoric and composition; secondary areas in technical/professional writing; ability to teach lower- and upper-level composition courses; evidence of scholarship and research. Preferred qualifications: relevant college/university teaching experience, an established research program, and experience with interdisciplinary and/or linked courses. **[Candidate qualifications]** Responsibilities: teach lower- and upper-level composition, technical and professional writing courses, engage in scholarship and service. **[Position information]** Send application letter, vita, and names, addresses, and telephone numbers of three references to: .... Application deadline: November 8, 2002. **[Application requirements and contact information]** [We] are an Equal Opportunity Employer that values diversity. **[AA/EO statement]**

Although it has all the five components of a JIL announcement, this position announcement with its focus on qualifications provides few specifics about the job. It lacks information about the department, the institution, and even specific course descriptions or names. As a template, it could be used to announce almost any position available on the technical, scientific, and professional communication market.

The candidate-centered job announcement

In contrast to this generic position description, recruitment marketing recommends revamping the position announcement in the following ways to make it more candidate-centered:

- Target your audience; know what that audience wants
- Consider your announcement from a candidate's perspective
- Provide realistic job previews/descriptions
- Assist candidates in self-selecting and targeting your institution (In other words, help them to see themselves in your organization)

- Attract candidates with vivid, concrete language and generate interest by conveying personally relevant, specific information
- Be aware of "signals" your announcement is sending

Recently, a CPTSC-sponsored survey of Ph.D.s graduated from 1995-2000 revealed eight job attributes that have attracted job candidates (Cargile Cook, Thralls, and Zachry.) Table 1 identifies these job attributes and indicates the number of times survey respondents identified them as important considerations in their job search. (Respondents could choose more than one consideration.)

Job Attribute	Count	Percentage
job description	58	26.1%
location	44	19.8%
other	35	15.8%
colleagues	20	9.0%
graduate program	19	8.6%
reputation of institution	18	8.1%
salary	17	7.7%
course load	11	5.0%
Total responses	222	100.0%

Table 1: Job attributes identified by survey respondents

Knowing how job candidates value this information can help departments focus announcements more specifically on what candidates want and need to know about positions. Although departments have no control of where they are located, other attributes, such as job description, reputation of the institution, course load, program and institutional reputation, and salary, are all kinds of information that can be and, perhaps, should be included in the position announcement, if the department wishes to attract candidates.

Among the other candidate-centered changes that departments should consider are (1) explaining the department's vision for the program and for the candidate; (2) providing a departmental, college, or institutional description/character statement, (3) using inclusive language in the position announcement, and (4) making specific references to teaching load, service or administration requirements, salary.

Departmental vision/fit statements are one way that candidates can begin to envision themselves working within the recruiting institution. Two excerpts from the September 23 JIL postings illustrate how these statements might be worded:

- "…The department seeks to define itself as part of an urban research university focused on questions of globalization and technology, particularly as they affect a comprehensive program with a breadth of historical scope and disciplinary diversity."
- "The successful candidate will participate in a nationally renowned undergraduate writing program with an established Ph.D. degree in …, an undergraduate interdisciplinary major in development, and a desire to increase cross-disciplinary pedagogical collaborations."

Similarly, statements describing program and institutional reputation can also assist candidates in self-selecting and targeting an institution. The following examples illustrate how these statements can be worded:

- "[Our] university is designated a Carnegie Research Extensive university, one of only three minority institutions on the list. With a minority enrollment of over 40%, we are a Hispanic Serving Institution. We enroll the largest number of Native American students of any university in the U.S."
- "The [department's] program…offers bachelor's, master's, and doctoral degrees. Growth at the graduate level has resulted in new professorial positions. A newly constructed building provides state-of-the-art classrooms and a usability lab."

Providing candidates with specific information about job descriptions and benefits assists candidates to select and target an institution; and finally, writing the announcement in a way that invites candidates to apply may help with recruitment. Using wording such as "we invite candidates with the following qualifications…" and "we encourage applications from candidates who…" has a warmer, more friendly appeal than a list of qualifications that reads like a checklist. Such inclusive language will tend to attract rather than eliminate candidates from the job pool.

In conclusion, shifting the rhetorical focus of position announcements may help to alleviate some of the tension associated with recruitment and the job search. It allows candidates to identify more quickly the positions that fit their needs and expertise and allows departments to market themselves more effectively to the small number of candidates available to fill positions in technical, scientific, and professional communication programs.

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Retaining the Relevancy of Rhetoric in Practice: Interactivity as a Rhetorical Strategy in Multimedia Writing

Julia Romberger Purdue University

As writing for multimedia and the teaching of usability becomes an increasingly significant part of technical writing, the rhetorical strategies that are available for all aspects of multimedia forms need to be thoroughly explicated if we are to continue to preserve rhetoric as a fundamental to technical writing courses and not relegate it to the nether realms of theory. Interactivity is one of the aspects of multimedia writing that needs to have a rhetoric developed for it that can inform our teaching of usability and the development of multimedia projects.

Early discussions of interactivity in the scholarship of Jay David Bolter and Michael Joyce on hypertext focus on the ability to move beyond traditional writer-centered texts to reader-centered document experiences by exploiting the capacities of hypertext to create non-linear navigation (Bolter 2001, Joyce 1995). Joyce has taken the position in his recent work that the current uses of hypertext on the internet do not fully exploit the capacity of the medium to create reader-centered documents and instead maintain a highly linear structure (2000). Therefore, interactivity is generally articulated as either reader-centered or writer-centered.

I would like to complicate this binary that posits reader-centered on one side and writer-centered on another. The interactivity that is the means to mediate control over the relaying of information affords a much more complex set of issues than simply putting control in one party's hands versus another's. Andy Lippman, founding associate of the MIT Media Lab, has defined interaction as mutual and simultaneous activity on the part of both participants, usually (but not necessarily) working toward some goal (Stone 10 - 11). Clearly, the model being developed to discuss interactivity here is a working conversation that is leading toward an accomplishment defined by either or both participants. Understanding interactivity as being "as much a cognitive event as it is a physical act" that is guided by metaphors leads to the rhetorical concepts of ethos, pathos, and arrangement to assist in understanding how interactivity operates in the rhetorical context (Andrisani, et al). In the definition given by Lippman, the emphasis is on the relationship between user/audience and the technology/program. The various ways of arranging types of interactivity to maintain "control" of the information flow within the document and handle the mediation sets up issues of ethos for the originator of the multimedia and is a critical influence on the pathetical appeal of the multimedia document on the reader.

I take the position that when teaching issues of usability for multimedia projects to technical writing students, attention must be paid to how choices of different interactions are in fact choices of rhetorical strategies. These interactions can have a critical effect on

the reception of a multimedia work. This will allow technical writing courses to maintain an emphasis on the importance of rhetoric as the theoretical basis for the discipline and show students that rhetorical principles are adaptable and valuable beyond the traditional print texts and speeches that are commonly associated with them and that rhetoric is relevant to the types of composing that are increasingly utilized in corporate, academic, entertainment, and personal venues in the information age.

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Appendices

Distinguished Service Award

Selection Criteria[1]

Persons nominated to receive the Distinguished Service Award will in general possess the following characteristics and attributes:

1. They must be members of CPTSC at the time of their nomination.

2. They should be members of long standing in CPTSC with at least seven consecutive years of membership sometime during their careers. The DSSC can recommend exceptions to this rule but only for members of extraordinary merit.

3. Nominees must have made significant long term contributions to programming in technical communication. It is expected the DSSC will consider only members who have established significant careers in technical communication programming, working both on the local and the national levels. The key question will be, Have technical communication programs been significantly affected in a positive manner by this person's career?

Honorary Distinguished Service Award

The DSSC of the Executive Committee with the advice of the DSSC may from time to time choose non-members to receive an Honorary Distinguished Service Award. Such honorary recipients should have made significant contributions to CPTSC or to programming in technical communication. This contribution could be either as a career long emphasis or as a significant special contribution.

[1]Approved Austin, Texas, October 1997; posted to the Web site March 1999.

2002 Recipient, Dan Riordan

Speaking on behalf of Riordan

Steve Bernhardt
Kirkpatrick Chair in Writing
University of Delaware

It pleases me to no end to see my friend and colleague Dan Riordan receive the Distinguished Service Award for 2002 from the Council for Programs in Technical and Scientific Communication. Dan is the Council's crazy voice of reason: a steady, unnerving presence; the surprisingly contrarian iconoclast. Dan reminds us all of the centrality of teaching to our professional lives; he shows us what it means to enact a scholarship of teaching.

Dan's career has been devoted to the students of Stout--young people of good Wisconsin stock--pragmatic, career-minded, with unapologetically vocationally-driven Midwestern sensibilities. Dan fits his life and his energy to their needs in that setting, providing what we often call "service courses" but which means, in Dan's terms, helping students figure out what they want to do and then helping them learn to do it. This is empowerment, and it arises as these students take control of their lives, discovering how to use language to establish their professional identities. Dan elevates service to a calling.

Beyond those service courses, Dan has led the way in establishing a new

undergraduate major in technical communication, one embedded in an innovative university philosophy that stresses integration across various applied disciplines and close connection to work settings. Dan has distinguished himself as an honored professor at the University of Wisconsin--Stout, someone recognized repeatedly for his outstanding teaching and for his work across campus.

Dan accepts as his mission and role a teaching load that would make many of us stagger under the burden--and continues to lead in the scholarship of teaching. He articulates the model for our service courses, and he provides leadership in curriculum development and articulation. As a leader in our professional organizations, he contributes his perspective as both participant and observer, engaged with his teaching and the development of our profession, yet always evidencing an ironic detachment, ready to offer droll commentary on our activities.

My regret is that family commitments keep me away from my favorite town of Logan this year, but I join you in raising a toast to the accomplishments and professional leadership of my esteemed colleague and valued friend, Dan Riordan. May his sympathetic grace and wise insight bless us all.

Bruce Maylath
Director, Program in Technical Communication
UW-Stout

I first met Dan Riordan, fittingly enough, at a CPTSC annual meeting. At the time, we taught at different universities in different regions of the United States. Although his name was familiar to me from his publications and textbook, Technical Report Writing Today, I had never laid eyes on him till that point. At the time, he was CPTSC's president. I was immediately impressed. He was welcoming, informative, organized, inspiring, engaging, droll, charismatic--everything you'd hope to find in an organization's president.

As I met other CPTSC'ers at that meeting, I realized that Dan represented what I found in so many CPTSC members: these were people who not only had their heads in the clouds; they had their feet on the ground. In other words, I was surrounded by giants. (Now if you're my size and look up at Dan, there's no question that you're standing next to a man of stature.)

But seriously, when I say that CPTSC'ers have their heads in the clouds and their feet on the ground, what I mean is that it's an unusual group of people who can dream and consider practicalities at the same time. Maybe it's because of our field, or maybe the field attracts persons of such abilities. Technical communication demands that we examine and understand the concrete realities in which engineers and designers work, at the same time that we imagine the abstract, such as an imagined user/reader and the ideal, most usable text to help that reader. In many ways, technical communicators bridge the two cultures that C. P. Snow described several decades ago, now. We work in both the sciences and humanities. We imagine, and we make real.

It was a few years after I met Dan that we ran into each other at another CPTSC conference and he mentioned that his school, UW-Stout, was planning to launch a technical communication program, and he hoped I would apply to an upcoming position to help lead it. "Wow," I thought. "To work alongside Dan Riordan! I'll bet I'd be hard put to find a better colleague."

The hunch I'd had, based on my CPTSC observations, turned out to be correct--in fact, far better than I could have imagined. When I arrived at Stout, Dan had inspired his colleagues with a vision of a tech comm program for which it's hard to find an exact parallel anywhere. Some key courses in the curriculum appeared unique. They were ones Dan foresaw, proposed, and has now implemented--courses like the Rhetoric of Technology and a capstone course for tech comm seniors called Freelancing/Professional Writing. What he described at that earlier CPTSC meeting about that program he envisioned seemed head-in-the-clouds, and now, several years later, it's a feet-on-the-ground reality, fully living up to its promise and potential.

Dan's like that with everything he touches. While many of you are familiar with what he's done to effect the quality of programs not only at Stout but through his CPTSC work in North America, and, since our London meeting, also in Europe, you probably aren't aware of all the ways he contributes to education: things like his founding and directing Stout's Teaching & Learning Center, his service on the Menomonie Library Board, which led to a new library building, and the time he spends helping Mary with the minority students on our campus.

I hope when I become a senior member of our department that I'm as energetic and innovative and irrepressible as Dan still is. I see his verve continually--most recently Tuesday night, when he and Mary hosted one of our European CPTSC members to dinner at their house. It was invigorating to observe Dan and Peter Kastberg of the Århus School of Business in Denmark--those of you who attended the London2000 Roundtable remember Peter--brainstorm a collaborative certificate program in international tech comm. It sounded head-in-the-clouds, but when Dan's involved, I know that in a few years it will be a feet-on-the-ground reality.

Dan, I could see when I met you, serving as CPTSC's president, that you were even then distinguished in your contributions to tech comm programs. Every day is a privilege to work with you, and it's a deep privilege now to see you honored as this year's recipient of CPTSC's distinguished service award. Congratulations.

Charles W. Sorensen
Chancellor, UW-Stout

I think it is altogether fitting and proper that Professor Dan Riordan be given the Distinguished Service Award from the Council for Programs in Scientific and Technical Communication this year. Dan has been a dedicated and untiring advocate of our technical communications program and it is because of his leadership, his vision, his continued support for its development and implementation that the program is here today.

Dan has served this university for over three decades, has always had the best interest of the student as his highest priority and has justly earned an excellent reputation.

I offer my congratulations to an award well deserved.

Marilyn Miller
Secretary to the Dean
College of Arts & Sciences,
UW-Stout

Dr. Dan Riordan was a godsend when I began my position in the Dean's Office

14 years ago. At that point in my life, I had used an electronic typewriter, magnetic card machine, and Four-Phase computer for word processing. Never had I used a Macintosh. At a time I was feeling unsure of myself and with the multitude of mixed emotions that come with a new job, I felt overwhelmed. In the door walked professor Dan Riordan, who in ten minutes taught me how to produce a letter on a machine I was fearful of. During the next months he took his time to teach me how to do tables, mail merges, PageMaker, etc. Dan took away my fear of computers and renewed my zest for learning.

Through the years Dan has been generous of his time for all campus secretaries, not just our college, by teaching refresher sessions in grammar and punctuation.

Dan I want to say thanks for being such a caring (and patient!) individual who helped me when I was floundering. You are truly worthy of receiving the Distinguished Service Award. Congratulations!

Juli Hastings Taylor
Graduate Program Director
University of Wisconsin-Stout

I am pleased to admit that I had Dr. Riordan as an instructor for Copy Editing and Technical Writing during my undergraduate coursework approximately 12 years ago. Dr. Riordan will always remain one of my favorite instructors because of his expertise, enthusiasm, and energy in the classroom. He is a dynamic instructor who made every class session challenging and exciting. Furthermore, his passion for writing was contagious. Dr. Riordan's positive influence helped me to become a better student and a better writer. He served as a role model who motivated me to become an instructor in postsecondary education.

Sarah Gudmanson
August 2002 graduate (technical communication major)
UW-Stout

Dan Riordan taught many of my capstone Technical Communications courses at Stout. In all honesty, he was a tough teacher with high standards, and this was not always appreciated by all of his students--but I believe it was those standards that made them better students and ultimately, better technical communicators. I personally admired how he did not lower his expectations of his students, because it was obvious to me that he cared about us and what would be expected of us when we entered the job market as technical communicators. Dan also made sacrifices as a professor, like rearranging his schedule to hold a Monday night class from 7-10 p.m. in order to help students. Finally, I think everyone would agree with me in saying that Dan Riordan's amazing sense of humor and ability to tell a good story make learning fun! Thank you Dan, for all you have done for Technical Communication.

Craig Ethier,
UW-Stout graduate
GE-Interlogix

Dan is most likely being honored for his efforts and leadership in the technical communication program at Stout. However, I remember Dan in the classroom--a charismatic teacher with an enthusiastic approach to presenting a difficult topic. As a student, I felt comfort in knowing Dan was preparing me for work in the real world. As a parent, I can

only hope that my children find teachers with the same dedication, generosity, and perseverance.

Prather Harrell
UW-Stout Class of 1999

I am writing this letter in support of Dan Riordan, who I understand is receiving the Distinguished Service Award from your organization. I am a former student of Dan's. When I learned he was receiving this award, I thought to myself, "Distinguished is the perfect title for this award Dan is receiving, as everything about him is distinguished."

As a former student, I remember what I loved so much about Dan's class was that he kept everything very simple. While struggling to make the grade for many other subjects, Dan had a very smart, innovative way of teaching his students to embrace their creativity, look beyond the obvious, and be open to the ideas and opinions of others. In his class, all you needed to do was read the assignment, think about what it meant to you and how it made you feel, then articulate those thoughts intelligently on paper by using supporting examples from the reading. Each assignment would receive a 1-4; 1 being the lowest grade you could earn and 4 being the highest. The next day we would discuss the reading and our responses together as a class.

I remember how much I looked forward to Dan's class because I thought how wonderful it was to be able to give my honest opinion and actually earn a 3 or 4 for sharing it (At that time, most people weren't exactly eager to hear my personal opinion on anything). Dan never judged or penalized you for your honesty or wayward thinking. He simply wanted his students to be able to support their ideas with relevant examples of what inspired that emotion or triggered that response. It was great training for life as an adult. I didn't realize it at that time, but Dan was giving me the tools to be able to embrace my opinions with confidence, stand firm on my position and beliefs, and have the intelligence to know how to support them with fact, not rhetoric.

As a result of having been his student, I am also very open to surveying the thoughts and opinions of others. Before that class, I always felt the only idea or opinion that mattered was my own. Now, I eagerly look to share and exchange with others to solve life's dilemmas, so that the beliefs I support and the opinions I have are considerate of the situation and all involved, not simply self-motivated.

The Distinguished Service Award is a wonderful honor, and I am happy to be able to contribute to how Dan provided me with a service that will serve me well the rest of my life.

Darryl Cross
Senior, Technical Communication Program
UW-Stout

As a student at Stout, I have learned many things about life and what it means to deliver your best. Spring semester, 2001, I was privileged to have Dan Riordan as an instructor for a 300 level English class. Dan is a teacher who refuses to settle for less than your best. During this class, I learned a lot about presenting technical information in an efficient, yet extremely creative manner. I was also forced to critique my classroom learning style and develop a work ethic focused on attention to detail and having pride in your work, regardless of its importance.

Distinguished Service Award Acceptance Speech

I want to thank you for this honor. I know so many people in the field who have done so much, and I am surprised and delighted to be included in that group. In reflecting on this award, I would like to speak briefly about CPTSC and about service.

First CPTSC. On the first day that I attended a CPTSC meeting I went in, alone, to have breakfast in the dining room of the La Fonda hotel in Santa Fe. I was sitting by myself when a woman at another table got up, came over to me, introduced herself, and asked me to join her. It was Virginia Book, one of the founders of CPTSC. She asked me about my career, my classes, my interests, my family. She explained to me how the conference worked--the short speeches and the lengthy follow-up discussions. She was proud of what she had helped to build and I realized that this was an organization that I wanted to be part of. Within minutes she made me feel completely at home, a member of the group.

In those years CPTSC was smaller than it is now. The conference was one concurrent session. We sat at a large table and people rose, Quaker fashion, to speak to the community. After their comments the discussion started, inquisitive, respectful, probing the meaning of technical communication as a profession.

Now we have multiple sessions, many more attendees, and a wider range of topics than we ever imagined then, but the spirit of the organization has been preserved, not lost, with the growth. That welcoming spirit that Virginia exemplified and the sharing and valuing quality of the group has remained our core, and one of the defining characteristics of our profession.

And now service. Since this award is for service, I would like to reflect on its meaning for a moment. Our colleague Jimmie Killingsworth has defined technical communication as communication items that help other people do their jobs. In essence then, technical communication is service. When I act as a technical communicator, I act in service. But what does it mean to help others to do their jobs? I think that many people have indicated that the key in getting others to do their jobs is to create a situation, a framework, a space--the metaphors vary but all mean the same--and then get out of the way and let them work.

Spaces are created by architects. In those spaces many things happen. A good space creates communities in which occurs both communication and communing--drawing together in a special way. Each space creates a role for its users--pray here, work here, play here. The great spaces not only create roles, they create inspiration and exhilaration. To visit one of those spaces--from soaring cathedrals to that special corner of your room--is to find a kind of peace and strength that allows and encourages a person to go forward.

And the going forward is the great joy of creators of space. To build a building that people want to visit, and then find strength in, and then leave somehow enabled, is a great challenge and a great satisfaction. For the real value of the space is in the going forward, the leaving of the space, the walking through the door out to the world. Those who go out carry on not only the role that the space creates for them, but also a larger, more

fulfilled sense of themselves and what they can add to our community.

I had the good fortune many years ago to marry into the Palmer family. My wife Mary is beautiful, courageous, and visionary, among a host of other qualities. She has three sisters, all of whom have the same qualities: an impressive, daunting, exhilarating group. When the four brothers-in-law get together, we periodically discuss what it is like to be married to one of this quartet. One of my brothers-in-law expressed it very well when he said, "If you are married to a Palmer woman, and if there are three bags to carry to the car--if you hurry, you can hold the door."

And in these past three decades, service in technical communication for me has been doing my job, working to create spaces, and hurrying to hold the door as energized, visionary people, carrying the bags which held the contents of a new profession, walked through into wonderful new worlds. It has been my privilege to serve, and I thank you for the opportunity and the kind words so many have spoken as they crossed the threshold.

Council for Programs in Technical and Scientific Communication
29th Annual Conference

Conference Program

Thursday, October 3

6:30-8:00 Opening Reception

8:00 Keynote Address

Welcome: Thomas Kent, Dean of Graduate School, Utah State University
Introduction: Christine Hult, Utah State University

Tom Huckin, University of Utah
"Globalization and Critical Consciousness in Technical Communication"

Friday, October 4

9:00 – 10:15 Plenary Panel on New Graduate Programs

Paul Dombrowski, University of Central Florida
"Texts and Technology Ph.D. Program: University of Central Florida"
Jeff Grabill, Michigan State University
"Digital Rhetoric at Michigan State University: Designing a New Professional Writing Program "
Carolyn Miller, North Carolina State University
"Communication, Rhetoric, and Digital Media: Challenges in Interdisciplinary Program Design"
Mark Zachry, Utah State University
"Theory & Practice of Professional Communication: A New Ph.D. Program at Utah State "

10:30-11:30 Concurrent Session 1

A. Tech. Comm. & Its Neighbors: Relating English Depts. (ECC 201)

Molly Johnson, Univ. of Houston-Downtown
"Exploring Attitudes and Values: Tensions in Interdisciplinary Discourse"

Michael Knievel, Texas Tech University
"Courses, Credits, and Contact Hours: Clarifying the Role of the Humanities/Technology Binary Along a Continuum of Emphasis in Technical Communication"

10:30-11:30 Concurrent Session 1, cont.

Kate Latterell, Penn State Altoona
"Developing Technical Communication Degree Options in an Arts and Humanities Setting"

B. Teaching Tech. Comm.: The Content Question (ECC 203)

Dave Clark, University of Wisconsin-Milwaukee
"Ours/Theirs: Core Content in Technical Communication"

Helen Correll, Metropolitan State University
"Actions and Reactions: Technical Communication and the Process of Change"

Carolyn.Rude, Texas Tech University
"Is there a place for technical communication in the public sphere?"

Russell Willerton, Texas Tech University
"The White Paper: Prominent in Industry, Neglected in Academia"

C. Tech. Comm. & Digital Media: Information Architecture (ECC 205)

Moderator: Bill Williamson

Michael Salvo, Northeastern University
"Pedagogy, Praxis and Proliferation: Technical Communicators as Information Architects"

Geoffrey Sauer, University of Washington-Seattle
"The Need for Architect/Construction Worker Dichotomies in Information Architecture as a Profession"

Johndan Johnson-Eilola and Brent Faber, Clarkson University
"Open Source Practices and Technical Communication Programs"

11:45-12:45 Concurrent Session 2

A. Tech. Comm. & Its Neighbors: Relating to Technology (ECC 201)

Moderator: Bill Macgregor

J. Harrison Carpenter, University of Colorado
"'We Look Before and After, and Pine....' Part I: Can This Relationship Be Saved?"

Margaret Hundleby, University of Houston-Downtown
"'We Look Before and After, and Pine....' Part II: How Do We Negotiate Our Differences, and Should We?"

Pamela S. Ecker, Cincinnati State Technical & Community College
"Lessons Learned While Looking Both Ways: A Work-in-Process Review of Cincinnati State's Multimedia Information Design Programs"

Carroll Ferguson Nardone, Sam Houston State University
"Complicating Tensions and Reproducing Culture: Searching for Models in Technical and Scientific Communication"

11:45-12:45 Concurrent Session 2, cont.

B. Teaching Tech. Comm.: Redesigning Presentation (ECC 203)

Moderator: Bruce Maylath

Dianne Atkinson, Purdue University
"Thinking Global: If 'International' Means English, What does 'Intercultural' Mean?"

Linda Driskill, Rice University
"'Learning to Write / Writing to Learn': Considering the Limits of a Pedagogical Binary in Science and Engineering Communication in the Disciplines"

Tim Peeples, Elon University
"A Call for a Prax-ical Undergraduate Major Curricular Framework"

C. Tech. Comm. & Digital Media: Teaching Online (ECC 205)

Moderator: Geoffrey Sauer

Keith Gibson, Penn State University
"Online Technical Writing: Professional Service Courses?"

Kevin LaGrandeur, New York Institute of Technology
"Hyper-Textbooks"

Kenneth T. Rainey, Southern Polytechnic State University
"Technical Writing and Online Distance Education: The Advantages and the Pitfalls"

Janice Tovey, East Carolina University
"Negotiating the Intersection of Instructional Methods in Distance Education and the Traditional Classroom"

D. New Approaches in the Classroom: Visuals, Text, Web (ECC 207)

Moderator: Tyanna Herrington

Deborah C. Andrews, University of Delaware
"Program Priorities: Visuals versus Text"

Susan Lawrence, Carnegie Mellon
"With World Enough and Time: Balancing Fundamental Skills and Ultimate Goals in Document Design Courses"

Pete Praetorius, Montana Tech of the University of Montana
"Web Design as Technical Communication Service Course"

Dan Riordan, University of Wisconsin-Stout
"Ad/Manual: Rhetoric of Technology in the Technical Communication Program"

1:00 – 2:00 Lunch

David B. Haight Alumni Center

2:15-3:15 Concurrent Session 3

A. Tech. Comm. & Its Neighbors: Collaborating Inside and Outside Academia (ECC 201)

Moderator: Jeff Grabill

Ann M. Blakeslee, Eastern Michigan University
"The Inside-Out Initiative: Negotiating and Reducing Difference with Colleagues Both In and Outside the University; Or, What Do Technical Communication and English Education Have in Common?"

John C. Gooch, Louisiana Tech University
"Training Students as Technical Communicators for Interdisciplinary Situations: Traditional Scenes vs. Indeterminate Zones for Collaboration"

Heather Sehmel, Texas Technological University
"Creating and Connecting Curricular and Extracurricular Service Learning Opportunities: A Role for and Benefit to Technical Communication Programs"

B. Teaching Tech. Comm.: Theory & Practice in Curr. Development (ECC 203)

Moderator: Melinda Knight

Tracy Bridgeford, University of Nebraska at Omaha
"Repurposing v. Generating: Developing a Certificate Program in Technical Writing"

Susan Feinberg, Illinois Institute of Technology
"Back to Basics: Theory and Research vs. Teaching Software in Tech Com Programs"

Becky Jo McShane, Weber State University
"Skills and Literacies for the Postmodern World: Developing a Professional & Technical Communication Major at Weber State University"

Lili Fox Velez, Vox Medica
"Familiar Wheel to Build, New Road to Explore"

C. Tech. Comm. & Digital Media: Web-based Learning (ECC 205)

Moderator: Kenneth Rainey

Rebecca E. Burnett, Iowa State University
"Tensions in the Development of Web-based Learning Environments: Identifying Tensions in Virtual Spaces"

David Fisher, Iowa State University
"Tensions in the Development of Web-based Learning Environments: Addressing Tensions in Virtual Spaces"

David Morgan
"Tensions between the academy and industry"

2:15-3:15 Concurrent Session 3, cont.

Richard K. Mott, New Mexico Tech
"Dissembling the Binary of Theory and Praxis in Digital Communication: Programmatic Concerns"

D. Research: Evaluating Our Needs & Limitations (ECC 207)

Moderator: Nancy O'Rourke

David Dayton, Southern Polytechnic State University
"Building the Research Base of Scientific and Technical Communication by Increasing Our Collaboration with Master's Students"

The Little Rock 3 — Cindy Nahrwold, Barb L'Eplattenier, and Karen M. Kuralt, University of Arkansas-Little Rock
"No Human Subjects Were Harmed in the Writing of This Proposal: Tensions Between Institutional Review Boards and Writing Programs"

Graham Smart — University of Wisconsin–Milwaukee
"The Emperor's Clothes—Technical Communication as a Research-Light Field in Need of More Empirical Inquiry"

3:15-3:30 P.M. Break

3:30-4:30 Concurrent Session 4

A. Tech. Comm. & Its Neighbors: Academy and Industry (ECC 201)

Moderator: Susan Stevenson

Barbara Gordon, Elon University
"Sticking to Skills/Considering Ethics"

TyAnna Herrington and Jessica Cunard-Hunter, Georgia Institute of Technology
"Binary Tension in Teaching/Practicing/Researching/Producing in Academies/Industry"

Terri Palmer, Carnegie Mellon University
"The Gap between Old and New: Technology and Traditional Scholarship"

B. Teaching Tech. Comm.: Designing Graduate Programs (ECC 203)

Moderator: Dianne Atkinson

Teena A.M. Carnegie, Oregon State University
"Death and Resurrection: The Viability of a MS/MA in Scientific and Technical Communication in a Service Milieu"

David Alan Sapp, Fairfield University
"Supervising Adjunct Instructors: Reflections of a New, Tenure-Track Professional Writing Coordinator at a Small Comprehensive University"

Stuart Selber, Penn State University
"The Mechanics and Politics of Teaching with Technology Certificates"

3:30-4:30 Concurrent Session 4, cont.

Robert R. Johnson, Michigan Technological University
"'Conducting' Graduate Programs in Technical Communication"

C. Rethinking Our Writing for Reader/Users (ECC 205)

Moderator: Molly Johnson

Jennifer L. Bowie, Texas Tech university
"Adding the 'Universe of Users' to Usability Testing and Field Research: A Call for Change in the Academy and Industry"

Kelli Cargile Cook, Utah State University
"Recruiting New Faculty? Change Your Rhetorical Perspective"

Julia Romberger, Purdue University
"Retaining the Relevancy of Rhetoric in Practice: Interactivity as a Rhetorical Strategy in Multimedia Writing"

4:45-5:45 Focus Group: *Targeting Topics for STC-Funded Research (ECC 201)*

Sandi Harner Cedarville University
Judy Ramey University of Washington

6:00-7:00 Reception

Bullen Center, 43 S Main Street, Logan

7:00-10:00 Annual Banquet

Bullen Center, 43 S Main Street, Logan

Saturday, October 5

9:00-12:00 noon Annual Business Meeting
Skyroom Restaurant, Taggart Student Center, 4th Floor

12:15-5:30 Picnic and Hike in Logan Canyon

Leave and return from University Inn

CPTSC

gratefully acknowledges the generous contributions of the following publishers whose contributions have supported the conference breaks and banquet reception refreshments:

Greenwood/Ablex
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CPTSC 29th Annual Business Meeting

Logan, Utah

Saturday, October 5, 2002

1. **Announcements**
2. **Minutes from 2001 business meeting approved.**
3. **Standing reports**
   a. ***Treasurer's Report—Annotated by Karen Schnakenberg.***
   The annual conference was self-supporting in 2002. This will also be the case in 2003. We still print a handful of paper copies of proceedings; extra copies will be archived at the University of Minnesota. We also print a newsletter in the fall, which is an additional expense. In 2002 for the first time, CPTSC supported a scholarly research project.

   b. ***Publications–Bruce Maylath***
   Proceedings edited during the year went to press in August, and printed copies were sent to ERIC in August and delivered to website. The *CPTSC Newsletter* is now a tangible product, distributed to current members and those from one year earlier, plus London Roundtable. In 2001-2, Bruce also created a cover letter and Milano invitation, which was mailed to all FORUM participants. The newsletter may be used in the future to announce research projects funding opportunities.

   c. ***Program reviews—Stuart Selber, reporting for Carole Yee***
   Carol reports no program review activity this year. A request was made for self-study guidelines, but CPTSC doesn't structure self-studies. Stuart asked for positive program review experiences other have had. Several members discussed reviews in which they had participated, and Bob Johnson observed that program reviews are especially beneficial in the planning stages and again about five year into a new program. Often have other mandated reviews. Pam Ecker noted that while self-studies may be time-consuming to prepare, they are helpful politically when a designated expert from out of town provide insights about the local program.

   d. ***Website—Bill Williamson***
   The website listed 28 job postings in the past year. A new section highlighting the Distinguished Service Award recipients was added. *Proceedings 2000* are moving online, and administrative links are now being built. Bill has registered the website with free sites but not with ones charging a fee. Bill asked for archival materials for London meeting to be placed on the website, and Bruce said he would provide text for an announcement regarding Milano 2003. The website might also be used to provide a comprehensive list of programs. A spirited discussion followed about electronic voting. Geoff Sauer will be helping Bill with this issue. Other discussion topics included questions about the possibility of discussion forums prior to Milano, a newsletter archive, and additional materials to support single-person programs, such as lists of grants, etc. Bill said he would like to include more photographs on the site, and everyone was encouraged to send photographs of conference to him.

CPTSC 29th Annual Business Meeting

Logan, Utah

4. Other Reports

a. CPTSC in Milan, Italy—Bruce Maylath

Bruce noted that Forum is now every 3 years, and the next meeting is July 1 and 2, 2003. For the Milano meeting, the program will be on Monday, June 30th. Bruce also distributed the meeting's Call for Papers. In conjunction with CPTSC, the ATTW International Committee will co-host the conference. This collaboration will add a teaching focus to programmatic issues. The last meeting had 23 attendees from 7 different nations; this year's goal is 30 or more European participants, where there are many new programs, some guided by London 2002 meeting. In the past year, Bruce has responded to inquiries from the University of Paris and one in Northern Ireland. Business meeting attendees also noted interest growing in Denmark, India, and China, and attendees were encouraged to extend global connections and increase awareness of international programs.

b. ATTW—Carolyn Rude

Carolyn stated that the ATTW Call for Proposals includes tracks now instead of themes. This change assists junior faculty to interact with senior faculty through roundtables. Dan Riordan will act as chair of the ATTW teaching committee. Carolyn also announced that PDFs are now available for back issues of *TCQ*, and ATTW members would not have copyright fees as barriers to using these materials. A plan is in process to move *TCQ* online.

c. STC—Sandi Harner and Judi Ramey

Sandi announced a new process in place for the Gould Award. Sandi reminded attendees of the value of Sigma Tau Chi for students and encouraged attendees to visit the STC website for more information about the honor society. Attendees discussed other STC-related issues, such as STC job bank, STC student chapters, and the STC research grant program.

d. ACM SigDoc—Johndan Johnson-Eilola

Johndan reported that ACM SigDoc meets in Toronto this year and that *The Journal of Computer Documentation* is peer-reviewed. He also noted that it is not necessary to join ACM ($100-150 membership dues) in order to join the SigDoc ($30 membership dues).

e. CCCC Committee on Technical Communication—Stuart Selber

Stuart noted the October 15 deadline this year for nominating outstanding dissertations. He also asked for information about past dissertation winners and advisors, which will be posted on the website.

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

Linda reported that Programs for Engineering Communication will meet at ABC with Lee Odell and Debby Andrews.

g. Technical Communication Summit—no activity since June 2000

5. Old Business

Kelli Cargile Cook, Charlotte Thralls, and Mark Zachry reported that their CPTSC-supported research project results will be published in *Technical Communication,* May 2003.

6. New Business

a. Ken Rainey encouraged attendees to pursue more international interactions.

b. Bill Macgregor reminded everyone of opportunities to participate in a special interest group on service learning at CCCC.

c. Joe Strange invited everyone to Missoula to attend the Rocky Mountain MLA meeting.

CPTSC 29th Annual Business Meeting

Logan, Utah

d. Carol Nardone requested additional CPTSC attention be paid to "one-person" programs. "The Lone Writer" is the STC equivalent; she suggested that CPTSC provide similar support for lone academicians.

7. Officer Installation

Certificates were awarded to outgoing officers and new board members were welcomed.

8. Upcoming CPTSC meetings

a. 2004—Purdue/West Lafayette. Dianne Atkinson announced that a statewide team including Marge Hovde (IUPUI) and Stuart Blythe (IUPFW) would welcome CPTSC to the Heartland in 2004.

b. 2005—Simon Fraser and the University of Washington/Vancouver. Susan Stevenson, Simon Fraser in Vancouver, will partner with the University of Washington to work out challenges of international meeting.

c. 2006—Texas Tech/Lubbock

9. Invitation to Clarkson/Potsdam—Johndan Johnson-Eilola and Brent Faber

10. Meeting Adjourned

CPTSC Treasurer's Report
January 1 to October 1, 2002

Submitted to CPTSC Board & Membership at the Annual Meeting in Logan, Utah
October 5, 2002. Submitted by Karen R. Schnakenberg, CPTSC Treasurer
October 2002

		Subtotal	Total	Balance
Balance forward from 2001				**$ 17, 439.11**
INCOME				
2001 Conference in Pittsburgh		250.00		
Dues				
2001-2002 5 @ $ 20		100.00		
2002-2003 29 @ $ 20		580.00		
Total Income			930.00	18,369.11
EXPENSES				
01 Conference				
Mailing & misc food		76.08		
Refund of Cash Advance from Carnegie Mellon		1887.00		
02 Conference				
Logo		100.00		
Executive Board				
Print Newsletter	141.59			
Postage Newsletter	101.45			
Breakfast meeting	132.86	375.90		
Research Support to Kelli Cargile Cook	750.00	750.00		
Total Expenses			(3188.98)	
BALANCE ON HAND as of October 1, 2002				**$ 15,180.13**

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