32nd Annual Conference
October 20-22, 2005

Council for Programs in Technical and Scientific Communication

**Conference Proceedings for the
32nd Annual Meeting of the Council for Programs in
Technical and Scientific Communication
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Texas Tech University: Lubbock, Texas**

About CPTSC

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

Annual Conference

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

Program Reviews

CPTSC offers program reviews. The reviews involve intensive self-study, as well as site visits by external reviewers. Information is available at the CPTSC website.

Website

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

Listserve

CPTSC's listserv is CPTSC-L. To subscribe, send an e-mail message to

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About the 32nd Annual Conference

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Keynote Presentation

Technical Communication Research in Academic Programs: A Call for Action

Rachel Spilka, University of Wisconsin-Milwaukee

I'm truly honored to be this year's keynote speaker. Jerry Savage asked me if I would talk about research in the field, especially from a programmatic perspective. I'm really excited to have the chance to do so, because for quite some time, I've been very concerned about the extent to which we are preparing our students to do quality and significant research once they leave our programs for postgraduate jobs. I've joined others in our field in being absolutely delighted to see more required and elective research courses in our academic programs, along with some exciting research activity beyond courses at various colleges and universities, but I've also been troubled by what I perceive to be an unacceptably low presence of research activity and instruction in our programs. Tonight I'll touch briefly on how our programs could improve in making research a greater presence and priority, especially in our undergraduate programs, in which research instruction is almost invisible, at times non-existent, and certainly never central to the program's pedagogical goals.

Some Personal Observations

To begin, I'll share with you my sense that research is much less a presence and priority in academic programs than it was several decades ago.

To appreciate the extent and nature of this decline, let's begin with a brief flashback to the 1980's. Between 1983 and 88, I was a student in Carnegie Mellon's PhD graduate program in rhetoric where I specialized in technical communication. In 1983, when I arrived at Carnegie Mellon, the PhD in rhetoric program at Carnegie Mellon was just about three years old and virtually everyone in the program was enormously excited about its potential. The faculty members were proud to be there, and I must confess that never in my life before or since then have I met a more enthusiastic, dedicated set of faculty and students.

Together, faculty and students created what you might call an intense environment due in part to their fervent belief in that program's mission. The faculty members were absolutely unified in their vision of rhetoric and unified, as well, in their deep commitment to train a new generation of rhetoricians and researchers who would make their mark on the world. And the students, in turn, were eager to learn about rhetoric and related fields in ways that were nontraditional and interdisciplinary, and in ways that were immersed as much in the social sciences as in the humanities.

In order to accomplish their key goal of training a new generation of rhetoricians and researchers, the faculty at Carnegie Mellon designed a PhD program in which research would be a high priority activity in all aspects of the curriculum. In addition to an introductory course in research, which was required for all graduate students, the faculty encouraged students to take advanced courses in quantitative methodology and statistics. In a rather revolutionary move for the time, the faculty even allowed students to take several additional courses in research to partially fulfill their language proficiency requirement. I have always been weak in natural languages, and so, while I was at CMU, instead of studying French, German, or Spanish, I chose to take advanced courses in research methods along with a course in LISP, a computer programming language, to fulfill my two language requirements, and I have never since regretted making that decision.

In addition to taking courses to become proficient in research design and methodology, PhD students at CMU were expected to make research the centerpiece of their learning experience. For example, in just about every graduate seminar, we were asked to read and critique research articles or were required to design or conduct a research study. Research was definitely a high priority in that program and was consistently on

everyone's mind as they thought through problems in the field. I remember vividly that when I was in my second semester at CMU, the graduate students learned that one of our research professors, Dick Hayes (also known as John R. Hayes) was planning to hire a PhD student to be his research assistant. We admired and respected that man more than just about anyone else who was there and I think that all of us, without exception, took great pride in having Dick as a mentor and friend. The graduate students talked a great deal about Dick's desire to hire one of us to be a research assistant and we wondered with great anxiety which student he would pick. After a few weeks went by, we learned that Dick had picked Christina Haas to be his assistant, and we immediately became completely jealous of her. That was how it was at that time: doing research and working as a research assistant was pretty much the peak of what we knew as "success" in that environment.

But it didn't stop there. PhD students were also expected to design and conduct their own studies while still in the program and to report on those studies regularly in brown bag lunches in the English department. In addition, the department established a social expectation that PhD students should report on their studies each year at national conferences such as the 4C's and to publish their study results before going on the job market. I remember how in the mid 80's, many panels at the 4C's were filled with Carnegie Mellon graduate students who were reporting on the results of their studies and those panels routinely packed in 80 or more attendees with many of them standing in the back of the conference room or even out into the hall. Nationwide, people in rhetoric were enormously excited about the new research that was being done, and some of the best research of that time was being done by PhD students at schools like Carnegie Mellon and RPI.

Many PhD students at CMU who graduated before me, with me, and after me, went on to become leaders in the field. Due in large part to their solid research training, these students were highly capable of designing and conducting quality studies and even more critical, they were highly capable of doing research that contributed original and valued knowledge to the field.

Many of those students went on to publish ground-breaking articles and books; to administer very well-regarded and cutting edge academic programs; and to become valued mentors for subsequent generations of scholars and researchers in the field.

I realize that I've been describing a graduate program in rhetoric and not one that focused on technical communication, but I think that if I were to sum up what accounted for the success of most PhD students from that program in doing and publishing quality research, it would have to be these ingredients:

· Tremendously talented faculty members who were widely known and respected for their research in the field,
· A social environment that valued and prioritized research,
· A learning atmosphere that was permeated by research discussions and activities, and
· A program that established as a social expectation that students do quality research and then present study results regularly in national venues.

Research in the Present
Let's turn now to the present. About 25 years have passed since that time and as the cliché goes, times have definitely changed.

I'll focus first on disappointing trends in the amount and quality of research in our field and then on programmatic issues that might have contributed to the declines that I'll be describing.

During the past decade, quite a few technical communication specialists have noticed a marked reduction in the amount of research activity in our field. I don't have hard evidence to present on this point, but on the whole, technical communication conference talks and journal articles during the past decade have tended to veer away from research issues, with the majority of talks and articles seeming to focus mostly on issues of theory and pedagogy, with reports of exciting new research results becoming increasingly rare. I remember back in the 80's when the research network at the 4C's attracted hundreds of scholars

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and researchers. At that time, the research network was "THE" place to be. When the ATTW began to provide an annual research network, attendance was also strong with approximately 30 technical communication scholars joining the session. Yet, when I was chairing the ATTW Research Committee last year, only two researchers attended our annual research network at the ATTW conference in San Francisco—and those two researchers were even from the same academic program! With the increasing number of academic PhD and MA programs in technical communication, I'm honestly not sure why more graduate students are not taking advantage of the chance to spend a half hour with specialists in the field to share problems and advice for improving research studies. If I could make some guesses, though, one might be that they are satisfied with the help they're receiving at their own institutions and perhaps they lack of awareness that help and support from sources outside of their own institutions might wind up being truly useful to them. Another hypothesis is that most students are attending conferences with other main goals in mind that have little or nothing to do with their own research. This is a valid possibility, because conference talks have become few and far between in which students and established scholars in the field have shared exciting results from studies, results so new and fresh that they have led to dramatic changes in the way that we view technical communication. I've personally attended a few panels of that caliber of quality in the past few years, but just a few. A third guess is that technical communication students and veterans simply might be doing less research than before. And a fourth guess is that students and veterans in our field might be doing research that is lower in quality and impact than studies in the past.

Let's move on now to discuss the quality of recent and current research. I really do think that this quality is not as high as it needs to be.

One reason for this opinion is that I join many of you in reviewing each year quite a few manuscripts that are submitted to academic journals in our field. In recent years, I've been dismayed and I confess, sometimes astounded, by the authors' poor framing of problems and by their weak research designs and methodology.

Over the past year, as the new manager of the STC Research Grants Committee, I've noticed the same problem. Some good news is that in response to this year's call for pre-proposals for STC's annual $10,000 research grant, we received 21 pre-proposals from academic and practitioner researchers. We were delighted to receive so many pre-proposals from such a large and diverse group of technical communication specialists, including those in industry as well as academia. About a third of the pre-proposals were high in quality and we were so pleased that we recommended four pre-proposals (instead of the usual two) to move forward to the next stage of competition. One way to react to this situation would be to celebrate, because the many pre-proposals we received might be a sign that more research is being done in our field. If this is true, it's wonderful news! But I honestly do not see the news here as being all rosy, because about 2/3 of the proposals were quite low in quality and many of those were submitted by academic and practitioner researchers who probably have received some formal academic training in research. So, while I join others in rejoicing at the high quality of some of the research being planned in our field, from the low quality of many of the pre-proposals we received this year, I question whether we're doing an adequate job in training students in how to define an important, original problem in the field and how to design a high quality study to research that problem.

You might also know that this past spring, STC initiated a new competition for a larger grant award that could give a research team up to $150,000 for a large-scale project. This kind of grant opportunity is almost unheard of in our field, but our Committee received only seven proposals for consideration. And it wasn't as though all seven proposals were equally high in quality – there was complete consensus in our Committee that three of these seven proposals were exceptionally good, but that the other four had significant problems in problem definition, research design, or both.

STC clearly values and hopes for large-scale research projects that will help change the field for the better. But I can't help but wonder if many researchers or research teams out there have the background and

expertise necessary to propose and then conduct the type of large-scale research project that STC intends to fund. With the large number of graduate programs in our field at this point, you would think that many faculty and students would submit proposals for STC's large grant award and would do so with great confidence about the quality and integrity of their planned work. Why this didn't happen is anyone's guess. It could be that our call for proposals alienated some researchers because we asked for studies that would focus on just three areas of inquiry. But those areas of inquiry were quite broad, so I suspect instead, that many experts in our field did not submit proposals because of the following reasons: they might not feel qualified to engage in research of this scale and magnitude, they might be worried that they will have too little time to spare for research of this scale and magnitude; or maybe they just do not relish the idea of doing research in the near future and prefer, instead, to focus on other types of activities. Whatever the cause, what I have learned from managing the STC Research Grants Committee is that shoddy research is basically a waste of everyone's time – poor quality research will not be funded and probably never published, so if a researcher does not take the time and care needed to ensure the quality of the literature review, problem definition, or research design, and does not take the time and care needed to propose a study that has the potential to reveal new knowledge for the field, it is probably a waste of time even to conduct that study.

I believe that everyone who administers a graduate program in technical communication or teaches research in their courses, and I count myself in this category, must take some responsibility for the quality and significance of research that our students and alumni are planning and proposing. It is our responsibility to instruct students sufficiently well that they will know how to identify important and widespread problems in the field, how to ask good questions about those problems, and how to design a study that has solid potential to answer those questions. If research proposals by our students and alumni are not receiving funding and are not being published, we need to ask ourselves: what can we do to improve our academic preparation so that the next generation of researchers in our field will be outstanding?

Let's turn now to practitioner research. The fact that so little research has been conducted by practitioners is certainly not a revelation to anyone here, yet we need to recognize that this low research output by practitioners is a serious problem in our field. Don't you agree that it's possible that the limited amount of research done by practitioners contributes heavily to the problem of too little representation of practitioner needs and concerns in our overall research output? In the recent past, I've heard many calls for more research focused on workplace concerns with the assumption, I think, that academic researchers should be the ones to do that research – in other words, everyone seems to assume that the burden should be placed on academic researchers to identify and then research practitioner problems. But is that the ideal goal for our field?

Just this past week, on the CPTSC listserv, Marjorie Davis argued that a key problem in our field is that academic research has been too theoretical and too esoteric. Marjorie calls for academics to become more proactive about changing academic research so that it has more impact on practice. She wrote the following:

> We simply must study practice more widely and deeply. That means engaging in workplace practice ourselves; involving ourselves in international/global studies; thinking outside the documentation-product box, engaging in user-centered performance improvement; increasing our expertise in management and leadership; and increasing our understanding of the technologies that are rapidly changing practice.

And then Marjorie continues by writing:

> We have long chanted the mantra to our students to identify the value added: what do they bring to the company that affects the bottom line? Perhaps we should begin our own mantra: what do tech comm programs add (to companies as well as to academe) that improves practice and the future of the profession?

I agree with Marjorie that our programs must step up to this challenge. One goal can be to motivate academic researchers to immerse themselves in workplace settings and then choose to study topics of interest to practitioners. But my own take on this issue is that an equally valuable measure would be to find ways to enable more practitioners to do quality research on the topics that concern them the most. In addition to being more qualified than academics in identifying important topics from an industry per-spective, practitioners are better qualified to design studies that account for how things work in work-place contexts. Their studies are bound to be more sensitive to the regularities and realities of writing processes and products and of how workplace writing relates to the goals and constraints of organi-zations. Because they work at those organizations, the practitioners have a wealth of social knowledge that academics can only struggle to collect over long stretches of time. I'd like to propose, therefore, that academic programs take action to make sure that more practitioners will be doing more research in our field.

Obviously, increasing the quantity and quality of practitioner research will take some time and effort. For example, I don't remember any instant in the past twenty-five years when more than a handful or two of practitioners were immersed in research projects at any one time. As a result, there is dismally low output of practitioner research in our field. The question is, why has this always been the case?

Well one obvious reason would be widespread assumptions in the field that practitioners are unable to do research because of inflexible and severe corporate constraints, which arguably can powerful enough to discourage practitioners from even considering doing a study at their work site. I bet that everyone in this room has heard about the following two corporate constraints maybe many, many times:

· The first constraint is lack of time. The assumption here is that there is not enough time to do research in workplace contexts.

We all realize that many practitioners are overworked, or suffer already from chronically tight deadlines, so many of them probably assume that they can't possibly fit a research study into their already overcrowded schedules. It is also well known that many employers tend to view research activity as cost ineffective, because of the assumption that doing research will translate into unusable results and that the time it takes for an employee to conduct such a study isn't worth risking such valued company goals as productivity and profit-making. Whether this assumption is true or not, practitioners and their employers seem to fear research for the time it might take from other, more valued workplace activities.

· The second pervasive assumption that probably contributes to the low output of practitioner research is that there is no corporate support for practitioner research, or put another way, almost no buy-in from employers for practitioner research to be a viable option.

It's true that not all employers value research and that many employers undoubtedly discourage practitioners from doing research. But no technical communicator should assume that this will be the case at their worksite. There is evidence that quite a few employers do value research and do allow technical communicators to work on various research projects as part of a master's degree program or as independent attempts to improve writing and communication at a corporation. For example, a growing number of companies recognize that usability testing can be incredibly useful in evaluating the quality of documentation in achieving goals set for specific target audiences. Many companies also allow employees to conduct other types of research such as focus groups, qualitative measures such as interviews, surveys, and observations; comparative research, and secondary research. Many companies also encourage or expect their employees to keep up with the field by paying for employee memberships to local and national organizations in technical communication, allowing employees to attend local and national meetings in the field during company time, and financing their employees' continuing education in master's programs or certificate programs. There is also survey evidence that shows that many employers value research competence. As Ken Rainey and Roy Turner reported in their spring 2004 article in

TCQ, in 1996 the STC Job Competencies Committee identified "Research Skills" as one of eight core competencies for the field. They defined "Research Skills" as the "ability and willingness to gather relevant and accurate information and analyze it for appropriateness." All of this suggests that many corporate employers do value and support research done by practitioners.

Even though I think we would all agree that corporate constraints – including lack of time and lack of corporate support – have enormous validity as major contributors to the low research output from practitioners, there is one more reason that we should consider for low research output by practitioners: It's possible that many practitioners have received insufficient training from academic programs in doing research and in marshalling arguments to convince management to allow them to do research. We need to acknowledge that insufficient training in research is as valid as corporate constraints in contributing to the limited amount of practitioner research.

If we care about improving the quantity and quality of practitioner research in our field, and if we are willing to take on at least partial responsibility for the problem of low volume and low quality output from practitioner researchers, our next step should be to look closely at possible shortcomings in our BA and MA programs. Most practitioners do not earn PhD's in our field; most of them earn BA or MA degrees and many of them earn just the bachelor's degree. For this reason, you will notice that in the remainder of this talk, I will be focusing mostly on improving our research instruction at the BA level.

A Close Look at Our Academic Programs
I will now discuss how our own academic programs might be a significant contributing factor to the decline in the quantity and quality of research in our field. Again, my premise is that what we are doing or not doing in our academic programs might be more instrumental than what is happening in industry to constrain quality research done in our field.

More specifically, I'll turn now to addressing the following issues:

--What types of research will our students need to do in their future careers?
--To what extent, in our academic programs, are we preparing our students to do these types of research?
--What types of research will our students need to do in their future careers?

In preparing for tonight's talk, I did some brainstorming about various types of research that students in any one of our programs should be capable of doing in order to add value to a company or contribute new knowledge to our field. You can probably add to this list, but this is what I've come up with so far:

1. Usability testing (readability and usability of documentation or of writing processes)
I put usability testing at the top of the list for two reasons. First, what I've heard over the years from students graduating from academic programs is that skill and expertise in usability testing is valued greatly by many employers of technical communicators. By adding usability testing to the range of job responsibilities in a corporate job, or by teaching other people in a corporation how to do usability testing, our students add considerable credibility to ensuring that their corporations produce quality documentation or use quality writing processes. Skill in usability testing is considered a surefire way for students from academic programs to add value to the corporations that hire them. It is exactly because this type of research is valued so highly in work contexts that most academic programs include some instruction in usability testing in their program requirements or electives.

2. Focus groups, interviews, surveys, observations (continuous learning about specialty topics for a specific type of job)
No matter what their job titles or specialties, technical communicators need to learn specific subject matter associated with their jobs, and they need to keep learning abut specialty topics as a way to remain current with changes and trends in their jobs. As a result, conducting focus groups, interviews, surveys, or observations can become a frequent and critically important job activity for any technical communicator.

3. Qualitative research, ethnography (important for social adjustment, social learning, social analysis, social accommodation, and social innovation in workplace contexts)

Research and theory from the 1980's focused on social construction theory and enriched our awareness of the reciprocal relationship between social contexts and workplace writing. If new writers are capable of researching this reciprocal relationship along with rhetorical, social, and political features of social contexts, they are better prepared to accomplish the follow goals:

Social Learning: We need to instruct our students in how to do research social contexts so that they can learn about the following:

· What is important to a social context: its goals, mission, and vision;

· Social conventions, norms, expectations, and constraints that could affect the writing process and written products;

· Relationships and political issues that could affect writing;

· Influences of writing and written products on the social context;

Social adjustment: As Jamie MacKinnon and the research team of Anson and Forsberg have shown us, the transition from academic to workplace writing can be extremely difficult and even disturbing for some of our students. MacKinnon suggests that it can take up to a year, possibly up to several years, for newly-hired writers to learn how to write effectively in an organization. Anson and Forsberg report that for some students, a period of disillusionment can occur when they are trying to adjust to writing at an unfamiliar organization.

We need to prepare our students, especially our undergraduates, for what they will be encountering. In particular, we need to train our students to research and learn about social contexts so that they can transition more easily to new workplace situations and function well in those environments.

Social Analysis: Once they gather knowledge about a workplace context, students need to analyze:

· What it takes to write and communicate effectively in a given social context or across social contexts, and

· The quality of existing practice and whether it would be valuable to apply theory to improve practice.

Social Accommodation: Our students will also need to apply their social knowledge to do the following:

· Fulfill the needs and goals of a social context and especially, of readers or users, and

· Use writing and written products to add value to a social context.

Social Innovation and Change: And finally, our students will need to apply social knowledge in ways that make it possible to:

· Shape and reshape knowledge and create meaning in a social context,

· Bring about change in a social context, and

· Engineer improvements in a social context.

4. Quantitative and qualitative research (investigating problems in the field with the goals of adding to knowledge and bringing about valued, significant change)

This type of research is sometimes called "academic research," but as I've been arguing tonight, this is the type of research that both academics and practitioners need to do. No matter what their career goals might be, all of our students need both a fundamental understanding of how to do quantitative and qualitative research, advanced knowledge about how to define and frame problems, and how to design, plan, conduct, and report on studies. Graduate students in particular should be prepared to do this type of research. Whether they are at the master's level or the PhD level should not matter; whether they are aiming for academic careers or practitioner careers also should not matter. These students represent our hope for the future of our field: they need to be able to conduct research in ways that will add to knowledge in our field, but also in ways that will lead to improvements in practice.

To what extent, in our academic programs, are we preparing our students to do these types of research?
To what extent are we training students at all levels to do these four types of research?

In our programs, are we offering enough required research courses, research project work, and research activities so that our students will be equipped to do quality research in the future, and motivated enough to meet their potential as researchers in either academic or industry settings? Will the next generation in our field be prepared enough to do quality research or even to offer quality instuction in research in academic programs? As you'll see from my following comments, I'm afraid that in the vast majority of our programs, we are not preparing our students sufficiently well to accomplish for any of these goals.

PhD Level
In preparing for tonight's talk, I consulted the ATTW web site for links to PhD, master's level, and undergraduate level programs in technical communication. In all, I followed links to 19 PhD programs, 47 MA or MS programs, and 63 four year school undergraduate programs in our field.

Let's start by looking closely at the goals and courses that our programs are offering for students at the PhD level. From my examination of PhD program websites, there seems consensus that the central goal of a PhD program is to prepare the next generation of scholars and researchers to conduct qualitative or quantitative research to investigate problems in the field, or usability testing to detect problems in documentation. I would guess that in addition to these goals, most programs are also preparing students on a more informal basis to keep up with changes in the field by joining organizations and attending local, regional, and national meetings related to technical communication.

Yet, I'm not convinced that all students in our PhD programs can, with confidence, accomplish these three research goals solely on the basis of the courses they are required to take. When I looked through the PhD programs in our field, I discovered the following:

- 7 programs = require more than a single course in research methods
- 7 programs = require a single course devoted to research methods
- 5 programs = require no course in research

One way to interpret this data is to celebrate the fact that about 1/3 of our PhD programs require PhD students to take more than one research course. That is actually wonderful news, because if we examine all of the types of research that the next generation of technical communicators will need to conduct, they will certainly need more than one research methods course to be ready to handle it all.

But another way to interpret this data is to bemoan the fact that seven plus five, or 12 out of 19 which is about two/thirds of the PhD programs in this survey either require their students to take just one research methods course, or no research course at all.

From this data, we can see that many, many of those who designed the PhD program in this country seem to assume that requiring just one research course will be enough to prepare students for the types of research they will need to conduct during their program and after graduation.

I personally have trouble buying into this assumption. Presumably, in our PhD programs we need to train our students in theory, pedagogy, and research to prepare them for the types of work they will need to do. Just as our PhD students need multiple courses in theory, they also need more than one required course in research methods to handle the types of empirical work they will need to do or to teach to others in their future careers.

The PhD program at the University of Washington serves as a good model for us, because they require students to take two courses in research methods. All students must take a course called "Empirical Traditions in Technical Communication," and then they can choose to take either a course called "Research Theory and Applications in Technical Communication" or a usability testing course. What is elegant about this design is that all students will receive the same

foundational training in research prior to graduation, but can choose to take the "Research Theory and Applications" course if they are heading for an academic career or "Usability Testing" if they are heading for a practitioner career.

RPI's PhD program is similar: there, students are required to take a foundational method course plus one additional course of their choosing in a specific type of research specialty.

But I think what I like the most about RPI's program is that in addition to requiring all PhD students to take two courses in research, it requires them to provide evidence that they have presented at conferences and published in journals. I believe that their requirement is that students contribute to the field at least four times with conference presentations or journal articles before they can graduate from the program. This expectation of participation in the field is truly outstanding. By requiring students to give conference presentations and to publish in journals, RPI is showing its students that research is a priority and a social expectation in that academic culture. In this way, research activity undoubtedly pervades the environment at RPI in such a way that students are motivated to do their best and to meet their potential as researchers even before earning their degree. I would recommend RPI's program as an excellent model for the rest of our nation's PhD programs in tech comm.

My final push for us to beef up the research requirements and activities of our PhD programs is that graduates who pursue careers in academia often do little or no research after receiving tenure. If the graduates move to a tenure-track position, they probably have sufficient incentive to publish their dissertations as books or to do one more study and then report on that to the field, but this flurry of activity often lasts just the first six years after they graduate from our programs. Once a faculty member becomes a program administrator, the chances of that person starting up a new research study diminish significantly. The demands and details that go along with coordinating a tech comm program consume so much time and energy that scholars are often forced reluctantly to abandon research and publishing activity.

A related problem is the one that Marjorie Davis so eloquently identified this past week: that many of our graduates lack interest in possible practical applications of research and focus instead on doing theoretical and esoteric types of research.

It could be that programs that require just one research course or that wind up requiring no research course are experiencing some powerful constraints:

· Many of our programs reside in English departments and in traditional humanities programs that may view research methods courses as "too social sciency,"
· We can include only so many requirements and courses in any of our programs,
· Programs might have a limited number of faculty members who have other curriculum commitments, and
· Programs might lack faculty with sufficient training to teach the overview and methods courses that PhD students so desperately need.

Yet, instead of finding reasons not to require and offer one or ideally two research courses at the PhD level, program administrators need to find ways to accomplish that goal. If constraints are serious, perhaps a program can open up opportunities for students to take research courses offered in related disciplines; hire adjunct faculty to teach courses in research; or integrate instruction in research methods within a course about the theories or history of the field. Let's find ways to make things work. Let's be creative so that we can provide our PhD students with the robust type of education they will need in order to function well in their upcoming careers.

Masters Programs
Master's programs are often focused on preparing students who desire advanced training in the field in order to become valued practitioners in industry. Quite a few MA and MS programs mention in their overview descriptions that they aim to prepare students to become leaders in the field.

Because most MA and MS programs hope to train

students for advanced types of practitioner jobs in the field, it was surprising to find that 14 programs, or about a third of the 47 programs that I surveyed, require no research courses at all for their students. I think we can all understand how hard it is to fit so many different skill areas into a tight MA or MS curriculum. Many of us try to teach skills in theory, research, and practice to students who will take only eight courses in our master's program. But it's hard to imagine how master's students who have no exposure at all to research skills will be prepared for any advanced work at their future work sites. For example, without the ability to do usability testing or field work, they will have less value to offer to industry employers. And without the skills necessary to research industry problems related to writing, they will have less value to offer to the field as a whole.

The good news, though, is that most programs, about two-thirds of those I surveyed, do require that their students take at least one research course. But in these programs, the type of research course that studies are required to take varies quite a bit. In some programs students are required to take:

- One foundational research course that offers instruction in a variety of research methods. I would argue that this type of course might be the best way to prepare future practitioners to do the different types of research needed to add value to their work sites and to their field;
- A course in usability testing only;
- One research course, but they have a choice of taking usability testing, field methods, or another specialty type of research; and
- A course in the theory and research of professional writing.

I would guess that students in these types of programs will have more limited research abilities by the time they graduate, than those in the first category who were exposed to different types of research in their one required course.

My overall assessment is that I'm glad to see that most master's programs require students to take at least one research course, but my guess is that most students

graduating from our MA and MS programs will have very limited research ability and therefore a limited chance to add value to their work sites or to the field as a whole

BA Programs

In our own undergraduate program at the University of Wisconsin-Milwaukee, we do not require students to take any course in research. However, all of our faculty members integrate a wide variety of research skills into almost all of our undergraduate courses: we teach our students how to do usability testing and qualitative research, plus we devote an entire service-learning course to theories and methods of social learning, social analysis, social adjustment, social accommodation, and social innovation.

I'm telling you this to qualify my next statement. Of the 63 undergraduate programs I surveyed, only two programs require students to take a research course. It could be true that the other 61 programs integrate research methods into other course instruction, as we do at UWM. However, I suspect strongly that most of our undergraduate students are not receiving any training in research and that many of our undergraduate students are receiving much less training than they will need in their upcoming tech comm careers.

Why is research absent or invisible in most of our undergraduate programs? Here are some reasons that I've been able to identify – later on in the question and answer period, you might have more reasons to offer:

- There is just so much we can cover in our undergraduate programs to train students for a practitioner career. It's a struggle for us at UWM and I'm sure it's a struggle for many of you, just to cover the basics of theory and practice for these students. At UWM, we definitely focus on theory and practice in our undergraduate degree: we require students to take a course in document design, plus a course called "Professional Writing Theory and Practice" in which we have students do social research during service-learning projects. We also offer courses in web design, editing, project management, information design, and a slew of other practice-related topics. We

have just five faculty members who also teach in graduate programs and other departmental plans, so there is just so much that we can do. That is one reason that we integrate research instruction into other courses that we offer to our undergraduate students.

·   A second reason that most programs might not require research courses or even offer any research courses at the undergraduate level is the widespread assumption in our programs that undergraduate students will just do practice-related tasks in beginning jobs in the field, and if they wish to advance to leadership positions, they can get a master's degree and take research at that time. In other words, most of us are assuming that (a) undergraduate students will not do research in their early jobs and (b) students will come back for a master's degree later on. I personally do not buy into either of these assumptions. My own experience is that yes, some BA graduates do return later on for their master's degree, but most BA graduates do not. I also see many of our students doing research as part of their practitioner jobs very early in their careers. Often within a few months of their employment they are either doing usability testing or teaching others in a company about how to do usability testing. Our students also use a variety of qualitative methods to learn about what it takes to function well as a writer in new corporate environments.

There is other survey research that confirms that this second reason might very well be true – that most of us do not perceive research as a skill that our undergraduate students need to master before graduation. Nancy Allen and Steven Benninghoff of Eastern Michigan University recently surveyed administrators of 42 undergraduate programs in our field to identify program emphases and which skills and procedures are included in their curricula.

In one table that Allen and Benninghoff created from this research, they list the program emphases mentioned by the program administrators. I had to look at this table five or six times to make sure that I was seeing

straight, because research was not mentioned even once as a problem emphasis by the 42 people surveyed. In another table, Allen and Benninghoff list the skills and procedures included in undergraduate programs. In this list:

> ·Usability testing was mentioned most often: 5 programs teach usability testing in most courses and 29 teach usability testing in 1 or 2 courses. This is really good news, because our BA students will absolutely need this skill in their upcoming careers.
> · Document testing was also a common response: 12 cover document testing in most courses and 23 cover it in one or two courses.

Other types of research appear less frequently in this table:

> · Web searches are taught fairly extensively in just 14 programs,
> · Preparing surveys is taught fairly extensively in just 11 programs, and
> · Interviewing skills are taught fairly extensively in just 23 programs, which is about half of the programs surveyed.

This data tells us the following:

·   First, students in 34 of the 42 programs are learning about usability testing;
·   Second, students in about half of the programs are learning interviewing skills;
·   Third, students in comparatively few programs are learning about web searches and survey preparation; and
·   Finally, research is not perceived by any of the 42 program administrators as a program emphasis.

BA's are not learning enough fundamental research skills and are rarely exposed in their formal education to advanced research skills. In addition, their adjustments to workplace writing do not always go smoothly, perhaps due to lack of skills in researching effective writing in new social contexts.

We argue in our publications and at our conferences

that quality research is important to the advancement of our field; yet, we are barely doing anything to train BA majors for research in their upcoming jobs. We need to recognize that it's a myth that only in our MA and PhD will we be training the next generation of managers, leaders, and researchers in the field. Many, maybe most of our BA students will never earn a higher degree, so what they learn in our undergraduate programs might be the only exposure they receive to research methods. We definitely need to beef up our research instruction in undergraduate programs. Otherwise, we simply are not preparing our students to do the kinds of research they really should do in the future in industry jobs.

A Call to Action

Overall, in my talk tonight I've mentioned some positive and negative features about our academic programs. Here are some positive features that I've mentioned:

- There are more graduate programs and more research courses available at the graduate level than there were 25 years ago when I was in graduate school;
- Most PhD programs require one or more research courses for their students and one university, RPI, gives research a high profile in their program by requiring students to give presentations and publish articles prior to graduation;
- Most master's programs require students to take at least one research course; and
- In many undergraduate programs, even if no research course is required, research instruction in usability testing and document evaluation is available in other courses.

Yet, I think that we can all see that there's considerable room for improvement in our academic programs.

First, we adequately prepare students at the PhD, masters, and undergraduate levels to do research in their future careers; we need to increase the quantity and quality of research instruction in most of our programs.

I

would like to propose the following steps to accomplish that goal:

At the Program Level

- If it's possible, require students at the PhD, MA, and BA levels to take at least one research course, preferably more than one research course. Make sure that required courses cover a variety of different types of research to prepare our students sufficiently well for their future careers. For example, if your students are learning just about usability testing, introduce them to other types of research that will enable them to design studies of their own in the future about important workplace problems.
- If it is not possible to require a research course at the PhD, MA, and BA levels, integrate research instruction into the rest of your courses. Make sure that research skills are given more presence and priority in your programs and are not ignored or underrepresented.
- Do more to make research a priority and a presence in your programs. Require students at all levels to join organizations in the field. Require students at the graduate level to submit proposals to conferences and to write journal articles. Reward students for presenting at conferences, getting published in journals, and doing research studies prior to graduation. Reward them for participating in research networks or other research-related activities in the field.
- Teach your students high quality approaches to research: how to identify important problems in the field to research, how to formulate good questions, and how to design studies in ways that have the potential to answer their original research questions.

At the Field Level

Beyond the program level, we have a great deal of work to do in order to raise the quantity and quality of tech comm. research. Beyond your work as program administrators, here is how you can help out:

- The STC Research Grants Program is vibrant

and strong. We welcome your research proposals!And we are especially interested in receiving moreproposals from students in your programs. Thedeadline for our annual $10K competition is the end of June each year, so you all have plenty of time to submit something, or to motivate your students to submit something to us.

· The ATTW Research Committee is working hard to encourage more research activity in the field. If you're able to attend the ATTW each March or April, you can help out by attending their Research Network. The ATTW is also developing an online research repository a forum for the dissemination and discussion of research on technical communication. Roger Grice originally had this idea and now Dave Clark is working with graduate students to put this idea into action. When Dave is finished with the online product, which he hopes will happen within a few months, users will be able to easily post and comment on research ideas, proposals, and drafts, and also share announcements such as calls for papers and grant possibilities. The site is currently housed at
`http://pw.english.uwm.edu/~dapclark/.`
Dave is going to be user testing soon, hopefully starting late next week, but he tells me that he would also be grateful to get some general feedback and impressions from CPTSC folks.And if you can, please visit Dave's site in a few weeks and tell him your impressions of the site.

Also, last year, Ann Blakeslee and I published an article in TCQ in which we called for technical communication specialists in academia and practice to join forces in identifying the most 0. significant problems with research in our field and in coming up with practical, feasible solutions to resolve those problems. At last year's CPTSC meeting, Carolyn Rude led a session of program administrators to collect important ideas toward that goal. Ann Blakeslee is planning to coordinate and lead this effort at this conference and at future conferences. She'll be involved with asking how organizations can help out individually and how organizations can collaborate to raise the level ofquantity, quality, and caring about research in our field. Here is how you can all help her out. Tomorrow morning, attend Ann Blakeslee's plenary session where she will outline the goals of her initiatives and will explain how all of you can pitch in and participate in those efforts. I have great faith in Ann's initiatives and expect them to make a huge positive difference in our field. I hope that all of you will strongly consider participating in upcoming workshops and projects that Ann will be leading and that you'll decide that it's well worth your time to attend Ann's session tomorrow. I started tonight by describing how twenty-five years ago, research was a major presence in our graduate programs and was key to the growth of our field. I hope very much that I've convinced you tonight to become proactive in your own programs and in our national organizations so that the status of research can once again equal the status of theory and practice in our field, so that research can become a major part of what all of us do, and so that our field can strengthen considerably as we move forward into the 21st century.

Plenary Panel Abstracts

The State of Research in Technical Communication: Perspectives from CPTSC and ATTW Research Forums

Ann M. Blakeslee, Eastern Michigan University

Two years ago, Rachel Spilka and I co-authored an article for the special issue of `TCQ` addressing the state of technical communication in its academic context. The article, "The State of Research in Technical Communication," laid out three steps to initiate and sustain a plan of action for ensuring the quality, vitality, and impact of our research. The first step was to conduct forums aimed at identifying perspectives and concerns relating to five issues: the quality of research in our field; the quality of research training; relationships between academics and practitioners and between our own and related fields; status and visibility; and research support.

The second step, which we haven't yet done, is to hold two-day retreats aimed at developing guidelines and standards for research in the field; lists of research questions considered important to investigate; and a plan for disseminating this information. Another anticipated outcome for the retreats is a plan for providing incentives and opportunities for following the guidelines and standards and for investigating the questions. Finally, the third step involves implementing and evaluating the solutions and ideas from step two.

Since we published this article in 2004, we have conducted two research forums, one at the ATTW conference and one at CPTSC, both last year. We were concerned at these forums with formulating goals for the field and a vision of how research can add to the field's vitality and influence. Also, we focused the two forums somewhat differently based on the different concerns of the organizations (for example, we focused more on programmatic research at the CPTSC forum).

My focus in this paper is on the outcomes from both forums and also on laying the groundwork for the next steps. In my handouts you can see the areas we addressed, the questions we posed for each area, and the facilitators who ran the discussions. We're especially grateful to Carolyn Rude who facilitated the CPTSC

forum. Between 35 and 40 people attended each of the sessions, and, for the most part, participants in the two sessions were different. For each of the five areas, I identify below the problems and areas of concern that participants raised as well as the recommendations and ideas they offered.

Discussion around the first area, quality of research, generated two primary concerns: 1) a concern with research being done opportunistically, without regard to the needs of the field, and 2) a concern that there aren't enough research projects and that there are more conceptual/thinking kinds of projects being done than empirical projects. The recommendations the participants offered were that we carry out smaller projects and that we make workplace projects more research-oriented. They also recommended that we take advantage of consulting and service learning to generate projects and that we begin blurring the distinction between methods and content, making all of our classes, in essence, methods classes. In other words, participants felt that we should be incorporating research into all graduate classes rather than distinguishing research methods courses from content courses.

The latter was a recommendation that also emerged from discussions about the quality of research training. At the CPTSC conference, participants said that we need to be concerned both with providing research help to students and with providing help to the faculty who teach research methods. To help faculty, the group recommended that younger faculty be mentored by experienced researchers, that we give mini-grants and awards for exemplary research, and that we begin holding summer research workshops (they mentioned the Michigan Tech summer workshops on digital literacy as a possible model).

To help students, this group recommended requiring methods courses in programs, providing research grants as incentives for students to do research, having a

textbook on technical communication research, and devoting 10% of every course to research projects, a recommendation that, again, the participants in the ATTW forum also made. (This group said, specifically, that methods should be foregrounded more in all content courses.) They also recommended encouraging the formation of cohort groups for students and doing more to mentor students, including co-writing with them, like researchers in the sciences do.

The ATTW participants identified as problems the difficulty of making students into experts, especially given the limited number of methods courses they take and the limited number of such courses more generally. This group also debated whether we're addressing the significant questions in the field sufficiently and whether we're choosing appropriate methods. They recommended, generally, that we foreground research at conferences more and that we offer greater support and more incentives for research.

The third area, relationships, generated a great deal of discussion in both groups. While the ATTW group focused on our relationships with other academic fields, the CPTSC group addressed common barriers to collaboration between academia and industry. These included differences in goals, work timeframes, and methods; differences in our perspectives on theory and publishing; concerns with proprietary information; questions about the credibility of researchers who lack industry experience; and inherent differences in our respective work settings and their cultures.

The group proposed as a general solution to these barriers a more collaborative relationship in which we jointly define questions and conduct research with mutually beneficial results. They also noted how the traditional relationship between the two has tended to put academics in the role of investigators and industry in the role of the researched.

The ATTW group addressed our relationships with other fields and how our own disciplinary standards can work against us in those relationships, especially in obtaining outside recognition. They also addressed how our terminology and methods may not be recognizable to outsiders. According to this group, we need to write research so others can read and understand it, we need to publish our research in non-disciplinary journals, and

we need senior people in our field to become public intellectuals. By non-disciplinary journals, this group meant journals in other academic disciplines, although some of the discussion also focused on publication in forums targeted at the general public. Further, they saw distinct advantages for the field's visibility and status in having widely known and recognized senior scholars.

The latter idea came up in discussions of visibility as well, which concluded, simply, that it needs to be raised. The recommendations for doing this included the following: that, within our institutions, we use our own students as a way to market ourselves and that we do more to show what we ourselves do; that, outside the university, we publish in newspapers and trade publications and comment more on public situations.

Finally, on the issue of support and status, both groups raised several concerns. The ATTW group expressed concern with the dearth of support at higher levels (e.g., full professor research positions), while the CPTSC group expressed concern, primarily, with the dearth of support for programmatic research. They also expressed concern with corporate support sometimes "shaping" research, with student support sometimes depending on external funds, and with governmental and foundational support typically needing to be linked to cross-disciplinary teams (e.g., with faculty partners in the sciences and engineering). Both groups also identified barriers, including concerns with intellectual property, companies seeing no value in paying for research, and challenges in gathering and publishing data because of proprietary information.

The two groups also offered several recommendations for increasing support. The CPTSC group said that we need stronger connections with university research officers and that we should seek more government funding and build better connections with funding agencies. This group also recommended developing research partnerships across disciplines and developing a pedigree of successful grant work that could help us in obtaining future grants. The ATTW group suggested becoming involved in large interdisciplinary projects that need communications experts, and they also recommended looking for opportunities in consulting projects, using undergraduate research as a hook for funding our own research; and exploring possibilities with private foundations, libraries, and museums.

These discussions, in to-to, raise a number of important points and also suggest a number of implications for our programs, some of which include,

- Offering more methods classes in MA and Ph.D. programs

- Doing more research in our content classes and looking for opportunities for research in class projects and activities (e.g., service learning and client projects); in short, making all classes methods classes

- Doing more, formally and informally, to mentor students

- Developing and facilitating research cohort groups for students

- Providing more support and greater incentives to students for research

- Doing more, in general, to support undergraduate research

- Thinking about how we market ourselves and our programs, both internally and externally

- Raising the status and visibility of programs and programmatic research in order to obtain greater support for it

- Collaborating with other disciplines on programmatic research

In short, research happens in the context of programs, and all of our programs, regardless of their level, need to be focused on thinking about, teaching, and carrying out research. Our perspectives on research influence the courses we offer, how we think about and teach those courses, how we market ourselves and our programs, how we seek and obtain support, and how others view and perceive us.

With all of this in mind, I with to conclude by turning our attention to the next step in the process Rachel and I recommended, the proposed retreats. Our initial goals for these retreats were to develop guidelines and standards for our research, to generate lists of research questions, and to develop plans for providing incentives and opportunities for following the guidelines and standards and for investigating the questions. We're also interested, however, in hearing your perspectives and possible goals. In short, how should we respond to the concerns these forums have raised, and how can we continue these discussions in meaningful and productive ways?

One concern we should have, certainly, is with the fact that only subsets of the attendees at the two conferences participated in the forums. These certainly were not representative or sufficiently large enough groups from which to draw definitive conclusions. We also have to account for those professionals who face considerable challenges with respect to research; for example, those in schools that do not support research, those teaching in programs with only service courses and/or with other significant teaching responsibilities, those who lack training in research, etc. In short, before moving forward, we must also consider those who were absent from these discussions and the possible reasons for their absence. The responses we have are biased, and the voices we do not hear in these responses are also important in helping us to better understand these issues. Any consideration of next steps must take this into account. We need, especially, to consider those who may feel silenced or disenfranchised by the very agenda that this project articulates.

Finally, as we lay out next steps, we must also take care to not impose certain perspectives so strongly that other perspectives are overlooked. We should avoid any kind of move that thwarts innovation, or that valorizes a particular kind of research. In short, the task we propose is not without challenges. We must be careful as a field to identify and sufficiently address those challenges and to be concerned, first and foremost, with the growth and long-term health of the field. In short, we must take into account the uncertainties and insecurities such a project may awaken.

Common Threads: What Programmatic Research Reveals About Technical and Scientific Communication

Kelly Cargile Cook, Utah State University

Common Threads

What Programmatic Research Reveals about
Technical and Scientific Communication

Kelli Cargile Cook, Utah State University
Council for Programs in Technical and Scientific Communication
October 21, 2005   Lubbock Texas

Who are We, and What Do We Do?

- Arguments for definition
- Arguments against definition
- Jones' summary and admission: **Certain "qualities and skills" characterize technical communication, but these qualities and skills, he admits, "do not…provide us with a satisfactory definition" of who we are and what we do.**

Contextual Functionality

""Because technical communication embraces a wide variety of contextual areas in a variety of functional genres, communicators' goals…can differ from context to context. Potentially almost any number of generic or situational permutations can exist, changed by only one factor within the blend of contextual elements."

——Herrington and Tretyakov, "The Global Classroom Roject," Troublemaking and Troubleshooting," 2005

The Kaleidoscope Analogy

"Researching technical communication…can be like shaking a kaleidoscope: the elements are the same, but, when shaken, they interact in different ways, creating a new picture. The field as a whole is embracing this multiplicity in technical communication study, and teaching is beginning to do the same. This may be an indication that technical communication is 'growing up' and really is becoming a discipline with a unique set of characteristics."
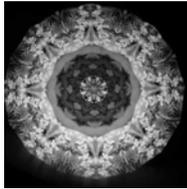
The Common Threads Analogy

While woven fabrics vary in their patterns, textures, and materials—their kaleidoscopic components—they are similar in their crafting. In weaving, multiple threads are intertwined for specific purposes and effects. Depending upon the weaver's choice of looms and materials (context) and the final product's purpose or use (function), the resulting textiles vary. Given the same threads, different weavers may create very different designs, fabrics, or other woven products.

Common Instructional Threads

- Communication contexts and problems –organizational, cultural, and ethical
- Audience awareness and persuasive strategies
- Conventional or generic expectations for communication solutions
- Strategies for critiquing and modifying these conventions
- Awareness of established practices for developing and implementing communication solutions, including the use and critique of technological tools

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Programmatic Research Can Help Us to Recognize & Strengthen Common Threads

- Review CPTSC-sponsored research
- Analysis of common threads that appear in current programmatic research
- Suggest additional threads we might explore through programmatic research

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CPTSC's Mission and History of the Research Grant Project

- Our mission
- A three-year history and commitment to programmatic research

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CPTSC-Sponsored Research

- **2002-2003**
  - Cargile Cook, Thralls, and Zachry--"A Profile of Doctoral Graduates in Professional, Technical, and Scientific Communication, 1995-2000"
- **2003-2004**
  - Rainey and Turner-- "STC Management Interviews"
  - Starke-Meyerring and Duin-- "Global Program Partnerships in Technical Communication"
  - Harner--"Trends in Undergraduate Curricula in Technical and Scientific Communication Programs"

CPTSC-Sponsored Research

- **2004-2005**
  - Blythe and Amidon—"Economics, Technology, and the Management of Technical Communication"—2004
  - St. Amant—"Expanding CPTSC Program Review Activities: Creating a Reviewer Network—2004"

Common Threads in Recent Programmatic Scholarship

- Program snapshots
- Undergraduate and graduate curricula and internships
- Programs and assessment
- Graduate education outcomes
- Professional Issues
- Programs/industry connections

Program Snapshots

- **"**TPC Program Snapshots: Developing Curricula and Addressing Changes," Allen, N. and Benninghoff, *TCQ*, 2004
- "Technical and Professional Communication Programs and the Small College Setting: Opportunities and Challenges," Latterell, *Journal of Technical Writing and Communication*, 2003
- "A Curricular Profile of United States *Technical* Communication Departments at the Beginning of the 21st Century," McDowell*, Proceedings of Annual Meeting of the National Communication Association*, 2001

Undergrad and Grad Curricula

- ☆ **"Global Partnerships: Positioning Technical Communication Programs in the Context of Globalization,"** Starke-Meyerring, Duin, and Palvetzian, *TCQ*, forthcoming.
- ☆ **"Trends in Undergraduate Curriculum in Scientific and Technical Communication Programs,"** Harner and Rich, *Technical Communication*, 2005
- **"Certification in Technical Communication,"** Turner and Rainey, *TCQ*, 2004
- **"Layered Literacies: A Theoretical Frame for *Technical* Communication Pedagogy**," Cargile Cook *TCQ, 2002.*
- **"Sketching a Framework for Graduate Education in *Technical Communication,"* Johnson-Eilola and Selber, *TCQ,* 2001

Programs and Assessment

- **"The Impact of Student Learning Outcomes Assessment on Technical and Professional Communication Programs,** Allen, J., *TCQ*, 2004
- **"Using Focus Groups To Supplement the Assessment of Technical Communication Texts,** Programs, and Courses," Eubanks and Abbott, *TCQ*, 2003
- **"Using Corporate-Based Methods To Assess *Technical* Communication Programs**," Faber, Bekins, and Karis, *JTWC,*, 2002
- **"Technical Communication, Engineering, and ABET's Engineering Criteria 2000: What Lies Ahead?"** Williams, *Technical Communication, 2002*

Graduate Education Outcomes

- **"The CCCC Outstanding Dissertation Award in Technical Communication: A Retrospective Analysis,"** *Selber, TCQ, 2004*
- **"Doctoral-level Graduates in Professional, Technical, and Scientific Communication 1995–2000: A Profile,"** Cargile Cook, Thralls,and Zachry *Technical Communication*, 2003*
- ☆ **The Big Chill: Seven Technical Communicators Talk Ten Years After Their Master's Program,"** Wilson and Ford, *Technical Communication,* 2003
- **"Doctoral Research in Technical, Scientific, and Business Communication, 1989-1998,"** Rainey, *Technical Communication,* 1999

Program/Industry Connections

- **"Do Curricula Correspond to Managerial Expectations? Core Competencies for Technical Communicators,"** Rainey, Turner, and Dayton, *Technical Communication, 2005**
☆ **"Fitting Academic Programs to Workplace Marketability: Career Paths of Five Technical Communicators'** Kim and Tolley, *Technical Communication,* 2004
- **"Building Connections between Industry and University: Implementing an Internship *Program* at a Regional University,"** Tovey, *TCQ, 2001*
- *"***Bridging the Workplace and the Academy: Teaching Professional Genres through Classroom-Workplace Collaborations."** Blakeslee, TCQ*, 2001*

Professional Issues

- "The Future is the Past: Has Technical Communication Arrived as a Profession?" Pringle and Williams, Technical Communication,2005
- "Surveys of ATTW Members, 2003," Dayton and Bernhardt, *TCQ*, 2004
- "STC's First Academic Salary Survey, 2003," Harner, *TCQ*, 1004
- "Professional Identities: What Is Professional about Professional Communication?" Faber, *JBTC*, 2002

More Threads Worth Considering

- Development and maintenance
- Administration and assessment
- Recruitment, hiring, and faculty development
- Program/industry connections

Development and Maintenance

- **What are the defining characteristics of technical and scientific communication programs?**
  - At the most basic level, what courses constitute a undergraduate major and minor in technical, professional, and scientific communication?
  - In addition to coursework, are there other basic requirements/skills/competencies that define a program (undergraduate, graduate, or certificate)?
  - Are there or should there be minimum educational requirements for programmatic instructors?
- **What distinguishes graduate programs from one another?**
  - What specializations do various doctoral programs offer?
  - How does institutional faculty research constitute these varied identities?

Administration and Assessment

- **How do we administer and assess our programs?**
- **By what measures or standards can we recognize success or failure in our programs?**
  - What are the characteristics of a successful or unsuccessful program?
  - How do we recognize these measures and standards? How are they demonstrated?
- **What would a comparison of national and international programs tell us about our programs as a whole?**

Hiring, Recruitment, & Development

- **What is the market outlook for current and future doctoral graduates?**
  - Are we currently losing program opportunities for lack of doctoral graduates?
  - Will those opportunities reappear when we have more doctoral graduates?
  - What are the effects of cross-pollination in doctoral programs? Is cross- pollination making our programs more or less homogeneous?
- **How will the increased number of doctoral-granting programs in technical communication affect the market?**
- **How can we better support lone professors?**
- **How can we promote diversity in our profession?**
- **How do we improve our programmatic abilities to compete and receive grants to sustain our research and our programs?**

Program/Industry Connections

- Do and, if so, how do local market needs affect or drive undergraduate education in specific programs?
- What and how can we learn from industry partners?
- What are the roles of advisory boards and councils? What are the best strategies for selecting and recruiting members to these boards?

Who are We, and What do We Do?

- Consensus vs. Common Threads
- Programmatic research and working together to identify common threads

Nanoscience and the Symbolic Capital of Research

Brenton Faber, Clarkson University; Michael J. Salvo, Purdue University

Like everyone assembled here today, I was looking forward to Brent Faber's talk about his ongoing research in nanoscience. Unfortunately, Brent was not able to travel to Lubbock and asked me to fill in for him. So anything that makes sense is Brent's doing. Whenever you get confused, it's my fault.

Brent called me a few weeks ago and we discussed how we might bring our research projects together to present here at CPTSC. As he put it, we would bring our two sites of inquiry together so that we might illustrate the importance of basic research.

For the past 3 years, Brent has been working with a team of undergraduate students to examine the public representations of nanotechnology in newspapers and popular magazines. This study has been part of an effort to better understand the functions of language during social change. Brent's team is working to describe both new science taking place at the molecular level, as well as techno-scientific practices emerging and gaining legitimacy in popular media. He is particularly interested in how the emergence of nanotech may influence existing scientific disciplines and practices.

Similarly, I have been working with graduate students on emerging sites of agribusiness, the combination of science, technology, and agriculture that has brought us genetically modified organisms and year-round availability of fresh produce—a mixed bag, certainly. But agribusiness has also ushered in a new environmental awareness in which companies reduce pollutants and re-use and recycle industrial by-products as raw material.

For both Brent's and my research teams, there is a sense of potential value in this research for eventually producing applicable lessons for technical and scientific communication. Perhaps. However, we both value the process of conducting basic research on its own terms, without immediate considerations of the research's potential contribution to application and use. That is, we are deferring questions of the meaning and application of the research, at least for the time being. We're discovering and describing the nexus of technology, culture, science and rhetoric for its own sake.

Scene 1: Brent's Research of Nanotech

For proponents, nanoscale science and technology emerged as nothing less than the next industrial revolution. Referring to work at the scale of one-billionth of a meter (a human hair is approximately 80,000 nanometers), nanoscience is an emergent cross-disciplinary field involving molecular-level research in biology, chemistry, electronics, and physics. Nanotechnology refers to the applications and the manufacturing processes of this work at the molecular level.

Mythically, much of the work that calls itself nanotechnology derives from a speech Nobel Prize-winning physicist Richard Feynman gave in 1959 titled "There's plenty of room at the bottom" (Feynman, 1959). In his speech, Feynman postulated the construction of matter from the molecular level up. This would be accomplished through chemical synthesis as atoms would be placed side by side to create literally any substance. Thus, the promise of nanoscience was in the claimed ability to manipulate atoms into whatever combination a researcher desired. This description may also be historically recognized as alchemy; the desire to turn just about anything from straw to lead to goose's eggs to gold.

In its public representation, media reports of nanotechnology have been positively glowing. These reports have claimed that nanotech will soon provide new ways to treat disease, fantastic computers the size of a pin head, inexpensive yet immensely strong blended materials for industrial applications, and new methods for detecting and neutralizing pollutants. Yet in the absence of breakthrough products or manufacturing methods, perhaps nanotech's greatest accomplishment has been the amount of funding and interest generated by and for the field. In 2000, nanoscale science and technology was targeted as a federal research and development priority. In 2003, $679 million in federal support was budgeted

for the field. In 2004, the federal government allocated $144.4 million specifically to support nano-based methods for diagnosing and treating cancer (Stuart, 2005).

As a research enterprise, Brent's group has found in nanotechnology a rich study of disciplinary emergence, legitimacy building, and sustainability. His team has traced the emergence of nanoscale science in popular media from 1986, roughly the year in which articles first started appearing in the press, to the year 2000. This year the team plans to collect articles from 2000-2005. The goal of this study is to more accurately describe and characterize these early media reports in order to better understand the underlying assumptions and social processes that have been associated with Nanoscale Science and Technology (NST) reporting.

The following list presents some initial findings from this work:

· Media reports of Nanoscale Science and Technology (NST) represented the field as an elite science emerging from well-known universities and corporate research centers.

· Despite the academic and research context, media reports were based largely on speculation and opinion with few articles citing specific data or research methods.

· Regional media played an important role in promoting local development and infrastructure. Just over 40 percent of   articles we examined were regional articles reporting local issues. This reporting was eventually tied to the reporting of an economic impact and regional economic development associated with Nanoscale Science and Technology (NST).

Ideologically, a small majority of articles presented Nanoscience Technology (NST) as a natural, progressive step for scientific development: 45 percent of reports argued that a nanoscale revolution was inevitable, or simply that nanoscale devices create efficiencies.

We did not find a unique or central concept that framed or suitably categorized the field. Nanoscience was affiliated most closely with computer research, medical applications, and electronic applications, but associations occurred in broad, general, and disconnected ways.

Scene 2: Michael's Research of Agribusiness
ADM once marketed itself as the supermarket to the world. Their main US-based processing plant in Decatur, Illinois, is playfully called "Gotham" by students at nearby Milliken University. The city-sized processing plant now captures its excess heat emissions to support a hydroponic vegetable and aquaculture farm, from which they ship organic cucumbers, lettuce, herbs, fish, and shrimp.

ADM's plant in Decatur turns corn and soybeans into many products, from Vitamin E to fish and animal feed, from cooking and industrial oils to ethanol and industrial gasses like carbon dioxide and liquefied nitrogen. The website describes their range of US-produced goods as ranging "from amino acids to sweeteners, from nutraceuticals to chocolate." The Decatur plant also recycles tires: it grinds up tons of tires, mixes them with coal, ethanol and spent grain, to boil water, which turns turbines, and creates electricity. This electricity powers the ADM production facilities and business offices located on the campus. They also supply electricity to the city of Decatur through the local utility. ADM's power plant mixes locally-mined limestone into the furnaces which reduces the amount of sulfur dioxide released into the atmosphere.

One major byproduct of this process is heat, massive amounts of heat in the form of hot water, used to turn the turbines. One gigantic tower cools this water. ADM had planned to build a second cooling tower, but it was never built. I am proud to report that it was a Purdue Agricultural Engineering graduate, and current Plant and Operations Manager, who suggested that ADM use the heat produced during the generation of electricity rather than build another cooling tower. That is, he proposed using the so-called waste of one process to drive another: recycling on an industrial scale. And he used an economic argument with ADM's management: if the experiment failed, all ADM had done was defer construction of the second cooling tower. And if you haven't had much contact with accountants, know that they like to defer construction, and so the plan was approved.

The proposed design redirected the flow of heated water away from the cooling tower and pumped it to a large greenhouse, where it was used to heat the structure. The greenhouse produces herbs, cucumbers, lettuce, and other vegetables. It also heats the largest aquaculture facility in the Midwest. Tilapia, an African fresh-water fish, is raised organically—without chemicals or hormones or genetic modification—and shipped

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throughout the Midwest. It is likely that if you have eaten farm-raised tilapia, you have eaten fish grown in Decatur at the Archer Daniels Midland facility. They are expanding their aquaculture facility to raise shrimp, and are beginning to ship what are marketed as organic fresh-water tiger shrimp.

I was surprised by two things at the greenhouse. First, the entire farm is soil-less and plants grow in a slurry of water and nutrients on a raised conveyor system three feet off the ground. Harvest takes place ergonomically: workers stand at tables harvesting, washing, and packaging produce. Second, ADM's farm employees are full-time workers who receive salary and benefits; the farm operates year-round producing both employment and fresh produce during the darkest and coldest months of the Midwestern winter.

So ADM grows organic fish and vegetables. The multinational concern that has legions of agricultural scientists working on the next breakthrough in genetically modified organisms, is also producing and marketing organic vegetables. There's a great post-industrial irony here, and I do not want to come across simply as an ADM cheerleader. But it is a site of change, both in one multinational organization's harnessing of technoscientific research to work cleaner and more responsibly, but also a site dependent upon marshalling effective communication practices in order to meaningfully realize the promises of scientific research.

What do these examples have to do with Technical Communication?
In the context of CPTSC, this presentation contains many stories unfolding at once. First, it is overtly a presentation about research at two sites: the public emergence of nanoscience and the rhetoric of multinational agribusiness. As these research projects continue, we will have a better understanding of how new fields emerge and struggle for legitimacy. We anticipate that the research will open opportunities to investigate new products, technologies, processes, and the discourses that attend their emergence. We look here to Bazerman's work on Edison as an example.
At the same time, at this point in our own disciplinary trajectory, this presentation is also unavoidably about ourselves and our research. There is a natural inclination to ask: what can we do with these studies? These two

examples may provide useful information for classes, practitioners, and administrators who are looking for new examples of genre work, for applications of existing theories, documents, and practices, new case studies to explain changing dynamics of careers and workplaces, and a host of other interesting questions.

However, we struggle with the suspicion that there is little here to excite other researchers in our field. What we mean is that this research does not cut new methods, it does not test a problematic assumption or hypothesis, it does not discover or invent something that someone else can build onto. Both are one-shot, isolated snapshots rather than additional examples added to a growing database of sites. To be cruel, we could argue that both projects borrow methods from other fields, apply them to technical texts, but return little in terms of home-grown knowledge to our field. To a great extent, technical and scientific communication is a field focused on applying what it studies – techniques and methods used by scientists, engineers, politicians, and the public, as well as communication specialists, in order to convey what we know. But it seems sometimes that we spend too little time thinking about how we study – on our own methods and approaches to research – and articulating what makes our research unique from other fields in the humanities and social sciences. We agree with Carolyn Rude who has argued that a good deal of our knowledge about communication in social policy and practice has been developed primarily through critique (2004), and we can extend this claim to argue that much of what we know about communication in social contexts has emerged from critique. As Rude noted, this practice of critique has been important for consciousness raising and identifying practices that could minimize communication failures in the future. However, she also notes that the focus on big issues – on national and international catastrophes – often overwhelms our ability to comprehend and influence everyday practice or understand and describe specific features of everyday examples of technical, scientific, or professional communication.

We are not arguing that we should stop doing critique. As Rude writes, "practice is intimately linked to critique and depends on it". Yet, she argues that we have a gap "between knowing that something should be done and knowing what to do and how to do it" (2004).

The first step in knowing "what to do and how to do it" is basic, non-applied research: Research that starts with a basic question or problem; research that attempts to understand and describe. We do not know where this research might lead us, nor are we immediately able to forecast how the outcomes might be articulated and applied.

Brent and I both assert here that we need to create a more appropriate and receptive audience for projects that do not have immediate application for technical communication teaching or administration. We need to allow researchers the freedom to develop and create projects solely to advance and create unique knowledge that is specific to our basic understanding of scientific and technical communication.

The first step we want to propose is greater legitimacy for basic, non-applied research. Research that starts with a basic question or problem, that attempts to understand and describe. Research that does not come seeking to answer specific questions posed by administration, teaching, or industry. By the time a problem is encountered and defined by our constituent groups, we have switched exigencies to an applied focus from one on basic research.

From basic research may come answers that may be applied to different contexts: administration, teaching, and industry, in the future. But basic research also provides the sort of insights and methods that enable us to get out in front of issues and address communication problems in a more predictive way, making our roles as scientific and technical communicators distinct from other researchers at the university or in commercial context.

Thus, Brent's nanostudies project is an attempt to articulate insights and methods for textual study – in this case empirically demonstrating a textual concept – in discursive emergence and stability. My agribusiness research reveals ways new scientific discoveries, such as the use of limestone to reduce sulfur dioxide emissions from the burning of coal, become new workplace practice, and where large-scale recycling becomes accepted. Will study of these sites produce new methods for technical and scientific communicators? Probably. Maybe. Perhaps. But that connection may not be necessary, a priori, to conducting the research. Many research projects will be undertaken and few will yield applicable results.

The conference theme asks us to think about connecting programs to research. Given the prominence of administrative work in our field, we have an understandable need to base good administrative practices on management research and to share our experiences in programmatic issues. But, Brent and I are going against the grain here and argue that to foster successful research in technical communication, we may need fewer connections and less expectation that projects will have immediate and practical results. We need to create spaces in which our research invents and discovers new things. We need to put less emphasis on using existing results and make space for exploration.

Introducing her essay "A humanistic rationale for technical writing" in Johndan and Stuart's collection of essays about technical communication, Carolyn Miller writes that "such a rationale seems superfluous now. If a successful field needs a rationale, it will be found in its intellectual contribution and its practical improvements to our lives" (2004). Miller is describing what we want to call a post-legitimate field – technical and scientific communication that reveals its own usefulness without a need to self-consciously assert its value. This is also a moment of opportunity: we can accept more risk and explore difficult research questions that may not immediately yield practical results. If we are, in Brent's phrase, "post-legitimate," we can take on riskier research projects that may have greater long-term legitimating and sustaining effects on the field and our programs. We agree this is no time to be timid.

We offer these two research sites as places—topoi—nanotechnology and agribusiness—where we perform basic, non-applied research, sites of technoscientific development that leave textual traces in our media, at our institutions, and perhaps most importantly, in our lives, and in our expectations for the future. But to our programs and classrooms? We'll just have to wait and see.

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ABSTRACTS

Proposal for a Summer School in Technical Communication and Culture

Yvonne Cleary, University of Limerick

Technical Communication has been taught at the University of Limerick (UL) since 1995. In the past ten years, hundreds of students have graduated with certificates, diplomas, and Master's degrees in technical communication. The subject is housed in the Department of Languages and Cultural Studies of the University. One benefit of being in a languages department is the exposure to colleagues' research and teaching interests in culture, language, and communication. Faculty in the Technical Communication section also have close ties to the Localisation Research Centre (also at the University of Limerick). This synergistic relationship between languages, technical communication, and localisation has led to the development of a proposal for a summer school in Technical Communication and Culture, designed to fit into the curriculum for technical communication students, but also students of professional writing, media and journalism, or graphic/visual design. This programme is being developed in collaboration with the university's International Education Office.

Rationale for the Development of a Summer School

Limerick is the only university in the Republic of Ireland where technical communication is taught. We believe that the summer school option will be attractive to colleagues in Technical Communication in universities in Europe and the United States. In particular, the strong cultural and historic links between Ireland and the United States make Limerick a very attractive proposition for US students seeking to study technical communication in another country.

Programme Content

The programme is under development[1]: its outline structure matches the template for existing summer schools run by the UL International Education Office[2], with three strands, and 45 contact hours run over three weeks. Students are assessed on all course elements and awarded three credits on successful completion (either by the University of Limerick or by their home institution).

Courses are designed to emphasise strengths of the section and related departments in both teaching and research: international dimensions of technical communication, cultural studies, and localisation are all covered.

The first strand (International Technical Communication) focuses on the importance of cultural awareness when designing technical materials for international audiences. A strand in Cultural Studies introduces key concepts of cultural theory and visual rhetoric. Both these theory strands are complemented by an introduction to web and information design for international audiences (Online Information Design for International Audiences), including practical sessions where students design materials and apply theoretical concepts, thus reinforcing their learning.

For faculty, this proposed programme represents an exciting development, as it implies opportunities for interdisciplinary research, as well as teaching collaboration, and may lead to future programme developments.

For students too, a summer school in Technical Communication and Culture is an attractive opportunity to experience a taste of student life in Ireland, prior to, or in lieu of, spending a full semester here.

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[1] A programme outline will be published once the programme receives full approval.

[2] The brochure and details for current summer school offerings (all in the area of Irish Studies) are available on the International Education Office web site at: http://www.ul.ie/internationaleducation/summer_schools.php. Because the International Education Office promotes and supports the programmes, students receive benefits including airport transfers, excursions, daily lunches, and organised on-campus accommodation.

Programmatic Responses to Offshoring: Future Directions

Clinton R, Lanier, New Mexico State University

I EEE Transactions on Professional Communication is accepting article proposals for a special issue on international outsourcing (i.e., offshoring). Baywood, likewise, is reviewing an edited collection on the implication of outsourcing—including offshoring—for technical communication. In 2003, the division of the National Writer's Union composed of business and technical writers (called BizTech) held a roundtable discussion with technical writers from the Silicon Valley area to examine issues in offshoring technical communication. Their summary points out that the majority of technical writing jobs may soon go away due to impending globalization and the need for corporations to cut costs (Offshoring, 2004).

Signs of the time for an industry that common sense would tell us should be impervious to the issue of offshoring? Perhaps. In a business where the basics of the job should require a mastery of English for success, it is hard to believe that nonnative English-speaking writers might replace our students—yet it could be an upcoming reality.

While we should ultimately—probably immediately—look into these trends, we should also start thinking about those things that programs can begin doing right now, things to better equip students with an advantage over cheaper competition. According to the BizTech roundtable, offshore writing departments will still need onshore elements for success. The onshore elements include editors who ensure that the documents can be read by a Western audience, documentation managers who organize offshore writing projects, and information architects who design the structure of the document and the information it contains (Offshoring, 2004). These offer some directions we can take. Students filling these roles will need management skills, intercultural skills, and skills in editing and collaborative technologies, to name a few. These skills are no longer supplemental, to be considered optional, but essential, to be integral parts of future programs.

We can also suggest that students take advantage of technical communication jobs with a better chance of staying onshore. Such jobs include those with U.S. government organizations and businesses where writers require secure access, such as defense contractors. For these positions, students need to be familiar with the standards peculiar to those industries, like the ANSI standards followed by the U.S. Military and its suppliers. Lastly, we may want to encourage more students to minor in, or emphasize, very technical disciplines, like chemistry to help them become writers for pharmaceutical companies, or math and engineering to write for engineering professions.

Such steps, or at least a dutiful examination of such steps, may allow us to proactively prepare our students, instead of forcing us to play catch up after the fact.

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Capitalizing on "A Call for Leadership" to Strengthen Programs in Scientific & Technical Communication

Russel Hirst, University of Tennesssee

Programs in scientific and technical communication in colleges and universities around the nation should respond vigorously to the "Call for Leadership" issued last year by the National Association of State Universities and Land-Grant Colleges (NASULGC). Their call is a golden opportunity to push for curricular changes, new hires, interdisciplinary and international collaborations, travel, visiting lectureships, physical facilities, library materials, research leaves, international faculty exchanges, international conference participation, changes in policy and procedure, and all manner of events and changes that will strengthen our programs.

If you teach at a state university or land-grant college, you've heard this call for American institutions of higher learning to become more international and intercultural, lest we be left behind as world leaders in education:

> This document … is a challenge to NASULGC presidents and chancellors to commit to the one significant act that has the potential to transform and enliven our institutions. This is a call to internationalize our nation's land-grant and major public research institutions, setting the pace for change in this new century. If we are to maintain our place at the forefront of the world's institutions of learning, we must truly be universities and colleges of the world. To make this claim we must internationalize our mission—our learning, discovery and engagement. And it is the presidents and chancellors who must lead the charge. It is time to act. It is time to lead (NASULGC Task Force).

Central administration at my own institution, the University of Tennessee, has responded strongly; our chancellor has called for a complete transformation of the university's curriculum based on this international/intercultural imperative. He promises extensive support for improving the faculty's competence for teaching and research connected to this goal, as well as recruitment and integration of international students, programs, and visits concerned with intercultural issues, adjustments to campus life based on these themes—and of course rewards for faculty who move the university deeper into the international/intercultural landscape. The chancellor has commissioned a Quality Enhancement Plan (QEP) in response to NASULGC's call, and UT administration and faculty are now beginning to respond. Response seems to be across the board, not confined to the departments most obviously poised to gain from this imperative, such as Modern Foreign Languages & Literatures, Religion, Sociology, and so on.

The first response in my own departmental division (Rhetoric, Writing, and Linguistics, wherein resides our program in technical communication) was to propose a new hire in tech comm with strength in international communication and writing centers. This is just the first step in a series of proposals we will make based on our university's commitment to its new QEP.

When administrations really get behind sweeping goals like "internationalization and interculturation," programs in scientific and technical communication have a golden opportunity to get additional support and recognition for what we've been doing for years: teaching and researching in the realm of international connectivity, globalization, intercultural and translation issues, and technologies vital for education and human collaboration around the world. Or, if we haven't been pursuing these goals vigorously in our programs, now's our big chance.

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Globalizing Distance Education: Re-thinking the Nature of Online Programs

Kirk St.Amant, Texas Tech University

Research in information technology (IT) indicates that global online access is growing at almost exponential rates, and much of this growth is happening in developing nations (Warschauer, 2003; St.Amant, 2005). Additionally, research in e-marketing notes that increasing numbers of overseas individuals are expressing an interest in taking classes online (Mobility, 2004; Ziguras & Fazal, 2001). Past research in technical communication, moreover, indicates international interest in the field is growing – especially in developing nations such as India and China (Barnum et al., 2001; Giammona, 2004). These combined research findings have important implications for online programs in technical communication. The question to consider is how should these programs address such research results? Should they apply this research by tapping into this growing global market? Such an application would offer four principal advantages:

1. Programs could increase the external funding they generate by not confining their services to domestic markets.
2. Programs could set international standards (which do not yet exist) for technical comm unication by training students to perform specific job tasks according to certain conventions. This opportunity would allow programs to establish their brand globally.
3. Instructors would gain insights into international attitudes and interests. This knowledge could enhance class lectures, could serve as a foundation for research, or could provide material for external consulting opportunities (e.g., serving as an international marketing consultant who has contacts within a culture).
4. Companies might contact successful programs in order to develop online training for grou working in international outsourcing situations.

The funding provided by such arrangements could finance program activities, support faculty research, or augment financial assistance for graduate students.

Taking advantage of such a situation, however, means that programs would need to address the needs and the circumstances of prospective overseas clients. Effectively addressing these factors could mean rethinking curriculum design, using different kinds of hardware and software to deliver instruction, and devising alternative billing strategies to account for differences in international incomes. This focus would also – at least in the short term – draw attention away from domestic students enrolled in online programs. Such programs, therefore, need to make a critical decision of how to address international online markets for their services.

The window for such a choice is short, for as more online programs emerge, the chances of being "first in the field" and of cornering this international market shrink. The questions that therefore need to be considered are

· What choices should online programs make?
· Why (for what reason) should they make these choices?
· What effects will these choices have on the future of both related programs and on the field of technical communication in general?

At a minimum, these questions should serve as a focus for future research related both to program development in technical communication and research related to online educational practices.

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Faculty/Student Collaboration for Funding and Research

Dave Yeats, Texas Tech University

According to the Society for Technical Communication's database of academic programs, 93 institutions currently grant degrees in technical communication or a related discipline. As the number of graduate programs continues to rise to meet the demand for post-baccalaureate graduates in academia and the workforce, program administrators find themselves searching for ways to help fund graduate students' education and provide important research opportunities that will help them secure a job.

The User Research Lab, an initiative directed by the Technical Communication program at TTU, offers graduate students an educational opportunity that meets financial needs and provides hands-on research experience. In this presentation, I will offer a graduate student's perspective on my experiences in the User Research Lab and discuss how the lab is structured to give me research experience and financially support my graduate work. I hope to spark a discussion dealing with how to start such a program, as well as mistakes, pitfalls, and obstacles to avoid.

The mission of the User Research Lab 1) provides students enrolled in courses with instruction in usability research methods, 2) assists in advanced research projects of graduate students and faculty, 3) provides usability services to the university community, and 4) promotes partnerships with industry clients. The graduate student Assistant Directors of Usability Research play a vital role in each area of the four-part mission.

The Assistant Directors support classroom learning by guest lecturing in graduate and undergraduate technical communication courses and by providing tours and training to currently enrolled students.

The Assistant Directors support advanced research projects by training students in business, psychology, education, and information systems in the use of the lab and by working on our own research projects. In May of 2005, an article appeared in `Technical Communication` that was the result of a collaboration between the Director and an Assistant Director—a project that was conceived, researched, and produced as a part of the broad mission of promoting scholarship.

Within the university community, the lab has produced usability evaluations of systems as diverse as the first-year composition software, the English departmental website, and the university library website.

Work with clients in industry represents the only revenue-generating activity in the lab. Thus far, the lab has been fortunate enough to find corporate partners who are willing to pay for our usability testing services for three semesters. Each semester, the lab has generated enough revenue to fund two graduate Assistant Directors.

The User Research Lab at Texas Tech University offers a model by which other programs can provide real benefits to their graduate students. While graduate students certainly benefit from a funding opportunity other than teaching first-year composition, it also introduces them to many different facets of research, both scholarly and commercial. Giving students hands-on experiences can open up the world of research, while simultaneously offering much-needed financial assistance.

Developing the Professor/Student Relationship Through Co-Authorship

Miles Kimball and Robert Waller, Texas Tech University

The relationship between professor and student is a cornerstone of the academic experience—but traditionally, that relationship stops where research begins. Professors conduct their own research; they also direct students' research; but in the humanities at least, professors and students less often collaborate in research. Yet student/professor collaborative research can also serve as a way to bridge the gap between the learning and research missions of tech comm programs.

What are the dynamics of this collaborative relationship, and what programmatic issues does it entail? In this position paper, we will discuss our insights on student/professor relationships in collaborative research projects, extending our experiences into recommendations for programmatic policy. Our goal is to start a discussion about how to approach professor/student collaborative research programmatically, specifically as a way to connect programs and research.

From the professor's perspective, collaborative research with students offers a variety of opportunities. In practical terms, collaborative research projects give professors a chance to explore research ideas that they might not be able to address on their own, given administrative and teaching responsibilities. Collaborative projects also give professors the opportunity to extend the student/professor relationship to that of a mentorship, internship, or apprenticeship. This promotes the student to the level of professional-in-training, potentially building a professional relationship that potentially extends into the student's professional career.

From the student's perspective, collaborative research with a professor is a chance to gain practical expertise, fostering a smoother transition from student to professional researcher. Students often have little experience with the publication process, and the nuances of managing a project, preparing a manuscript, and negotiating the peer review process can be overwhelming. Working with someone with research experience helps students overcome these obstacles. With the collaboration of a professor, students also have the freedom to influence the direction of research, while benefiting from working with someone knowledgeable about the process. The reward is learning how to conduct research on their own in the future.

While collaborations between student and professor are rewarding for the student and professor alike, there are challenges as well. From both perspectives, inexperience and competing commitments can lead to obstacles that frustrate the project process. The student's inexperience might be obvious, but the professor may not know how to manage student/professor collaborative work; the student's commitments to coursework might be readily visible, but professors also have just as many (if not more) commitments that may keep them from dedicating time to a collaborative project—particularly with the added overhead of mentorship.

We suggest that programs should consider developing both a formal policy and a working culture that guides professors and students in negotiating this dynamic.

In terms of a formal policy, programs should emphasize that professors must be mindful of student-collaborators' best interests, avoiding even the appearance of taking advantage of students' ideas and work. Professors and programs must also recognize the professor's responsibility to ensure that student-collaborators profit educationally from the research experience. Programs should also commit to making a place in courses (perhaps in a graduate research methods course or an advanced undergraduate course) for discussing the dynamics of collaborative research, making clear to students their rights, responsibilities, and opportunities as collaborators. Finally, programs should consider ways to encourage and reward collaborative research projects between professors and students as a way to connect programs to research.

In terms of a working culture, programs should encourage professor/student collaborative teams to share their experiences with each other, either formally through a series of seminars or informally through regular conversations. Professors can learn a lot from colleagues more experienced in conducting research with students; equally, students can learn from their fellow students who have developed research projects with their professors.

Recognizing Student Research

Nancy Allen, Eastern Michigan University

Connecting faculty research interests and findings to technical and scientific communication programs is beneficial and important, but it's also beneficial to connect some of our students' research to our programs. Students' course-assigned research topics, even at the BA or MA levels, may begin as off-shoots from a faculty member's research interests, but these research projects sometimes produce useful, perhaps even publishable, results, as well as insights into topics that are important to program development.

Here are some examples of the sorts of research projects I'm referring to. First, some programs now involve their undergraduate students in research projects related to real problems in their communities. These sometimes result in the generation of useful information for local decision makers and contribute to how a local situation may be handled. Such research is useful and could also provide a model for other programs. Another example of potentially important student research occurred in an MA level Visual Rhetoric course that I taught last winter. Students researched and reported on visual communication within a discourse community of their choice. The individual results were evaluated for their various degrees of success, but looked at as a body of research in a topic area, they indicated that the definitions of visual rhetoric we've developed so far are inadequate. This is a potentially important insight into an important theoretical issue, and it developed out of their presentations of individual student research.

Such insights are valuable to our understandings and to our communities, but I believe recognition of this value is currently insufficient. We do a good job of promoting the capstone projects of MA and PhD students, but I think we can go further. I suggest that we develop a forum to add public recognition of student research occurring in our programs. I'm not sure what form would be best for this process, but the web probably offers unused opportunities. Perhaps we could establish a website for student research reports and projects that result from class assignments, distinct from thesis or dissertation research. Perhaps we could sponsor a contest for the most useful or insightful classroom research project and have that project published in one of our profession's publications. I'd like to hear suggestions for an appropriate forum. I think our programs and our students will benefit from recognition of such good quality research.

Passing the First PhD Milestone: Student Research at the University of Washington Reflects Global Interests

Kathleen Gygi, University of Washington

Identifying research topics and defining significant analytic frames are major challenges for new doctoral students. This paper reports on which topics students in the University of Washington's Department of Technical Communication (UWTC) have chosen for their preliminary examination paper, the first PhD milestone, and how these topics are formed both by the research and funding opportunities at UTWC, as well as the long-term career goals of students. It illustrates how students are expanding the bounds of traditional inquiry in technical communication. This information can help inform programmatic efforts to support doctoral students in their development as researchers, particularly in light of this first cohort's interest in industry careers.

The UWTC doctoral program just finished its third year, with 10 full-time students and two new students expected in Fall 2006. More than half the students have completed or are preparing for the preliminary examination, consisting of writing and presenting a professional-quality research paper. Students have chosen topics that mirror faculty interests and grant-funded projects, as well as their own research interests; students have employed a wide range of methodological approaches with both empirical and interpretive lenses. The research questions addressed reflect major issues facing the field of technical communication, such as globalization and technology:

- Are people with disabilities marginalized in canonical cyberculture texts?
- Do electronic portfolios serve as boundary objects for emerging communities of practice among undergraduate technical communication students?
- Does lack of local content, language, and culture online inhibit the adoption of information and communication technologies in Central Asia?
- What are the factors that differentiate Internet users and non-users in Uzbekistan?

In other programs, student research agendas may be shaped primarily by course work. UWTC offers additional avenues for developing research interests and skills through participation in grant-funded research (paid, non-credit) and directed research groups (for-credit). Unlike other programs, few students have teaching appointments. Half the current doctoral students are funded through research assistantships with cutting-edge projects funded by the National Science Foundation: the Central Asia+ Information and Communication Technology project and projects associated with the Laboratory for User-Centered Engineering Education.

It remains to be seen which pathways will be most influential as students move on to their dissertation work. The current doctoral cohort is strongly aimed at careers in industry, and some students have come to the program with clearly defined research agendas of their own that do not relate to current faculty research. One such student is preparing a preliminary examination paper on human robotic interaction, focusing on emotional attachment. Given this bent, departments such as UWTC should consider ways to integrate industry connections, perhaps with funding attached, into their doctoral programs in order to pave the way for students whose preferred career paths lead in that direction.

The Capstone Course in Technical Communication as a Potential Site for Undergraduate Research

Russell Willerton, Boise State University

At Boise State, we are considering whether and how to implement an undergraduate capstone course. Capstone courses typically provide students a summative experience in which they apply theories learned and demonstrate knowledge and skills developed in a particular program (Moore, 2005).

While descriptions and rationales for capstone courses are available in the literature of other disciplines (e.g., sociology, communication studies), not so much exists for undergraduate technical and professional communication programs. Indeed, our programs do not appear to use the capstone course widely. In a recent survey of 80 programs (Harner and Rich, 2005), only 11 programs required a capstone course, and one program offered it as an elective. Harner and Rich also describe model curricula from two institutions, and neither includes a capstone course.

In recent decades, several groups have called for colleges and universities to give undergraduates more opportunities to participate in research; among these are the National Council on Undergraduate Research and the Boyer Commission, which was sponsored by the Carnegie Foundation (Rodrick and Dickmeyer, 2000). According to the Boyer Commission, "Too many students report a sense of anti-climax in their senior years—just add more to the total of courses, and it is finished!" The commission sees a senior capstone course in which students are mentored through a significant research project as the culmination of undergraduate education (Boyer Commission, 1998).

One challenge for a capstone course in technical communication is the tension inherent in our discipline – the tension between the practical concerns of the professional workplaces our students will enter and the humanistic and theoretical concerns of the academy. The capstone course must be flexible enough to require academic rigor, while also meeting undergraduates' concerns of "being practical" as they begin professional careers.

Another challenge involves students' skills in research methods. While the plan described by the Boyer Commission assumes that undergraduates are exposed to research and inquiry from their freshman year on up, that is not likely to be the case at many institutions. Indeed, in Harner and Rice's survey, only 10 of the 80 technical communication programs required a "research" course, and another four offered it as an elective. While a semester-long methods class might not be necessary, students need more than on-the-fly training in appropriate research methods.

A third challenge is that of mentoring and monitoring. Can one faculty member successfully guide a class full of seniors on their different projects? Are other faculty willing and/or able to take on students? Will students need IRB clearance for their projects?

In my completed CPTSC paper, I will address these three main challenges and identify ways in which technical and professional communication programs can address them.

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Researchers' Role in Creating Public Awareness

Dale Sullivan, North Dakota State University

Scientific and Technical Communication researchers at universities have opportunities, denied to many others, to study the influence of funding agencies on researchers in science and technology. Critics of technology, such as Jacques Ellul and Langdon Winner, have suggested that technology is autonomous, that it follows its own trajectory of development and is immune from critical control from the outside. Although I do not fully support their views, it seems to me, that the course scientific and technological research takes is determined in large part by funding agencies, whether the research is funded by government or by industry. In the first case, military and security applications tend to find favor; in the second, profitable products and processes.

If science and technology are not autonomous, but rather indentured servants of funding agencies, then the course of scientific and technological development should be open to political processes. Nevertheless, the public is largely unaware of how government and industry influence scientists' research agendas, except perhaps in high-profile cases like stem cell research, and then only on a superficial level. Researchers who choose to study the rhetorics of science and technology are likely to find their way into local cases, interviewing researchers, looking at documents associated with the case, and discovering hidden controversies that many researchers would just as soon keep quiet so that money will continue to flow into established research projects. As an example, in this paper I list several research opportunities that have been available in the world of agriculture research in the upper Midwest during the last four years, showing how either faculty or graduate students might have entered into the world of scientific and technological research, learned a great deal about how rhetoric and communication work in these situations, and, in passing, become aware of the political dimensions of the research. Publications flowing from such research would have informed not only the fields of rhetoric of science and technical communication, but would also have begun the process of disseminating information about controversial research, eventuating in heightened public awareness and, perhaps, of public influence. Because research programs of this kind would exploit local resources, uncover possible controversies, and foster public awareness, they may not be entirely welcome at the local institution. If a university profits from large grants, higher administration is likely to support it, even if the work is controversial. And that leaves researchers in scientific and technical communication in a precarious situation.

Calculating Risk: Communication and Perception of Risk

Rebecca E. Burnett, Iowa State University

Risk communication and risk perception have recently received extraordinary attention because of international terrorism, but both disciplines have a well-established history investigating a broad range of areas including aircraft, biohazards, environmental pollution, foods, medical conditions/procedures, natural disasters (floods, earthquakes, hurricanes, tornadoes), nuclear power, public health, space exploration, and tobacco.

Sandia National Labs' Risk Perception Website explains that "our perceptions of risk have as much, if not more, of an influence on our decisions as the cold, hard facts." (Sandia National Laboratories, California, 1999-2001).

Thus, this presentation addresses two primary concerns:

First, rhetoric is central to understanding risk communication and risk perception. For example, scientists typically look at hazards (actual dangers) associated with a situation, while members of the public more typically look at risks (perceptions of dangers). Discussion about rhetoric and risk should include four critical areas:

    (a) Individual risk (e.g., health - condoms and STDs);

    (b) Workplace risk (e.g., compliance with OSHA, ANSI and ISO regulations);

    (c) Community risk (e.g., terrorism, hazardous locations/sites); and

    (d) Environmental risk (e.g., acts of nature, pollution, extinction).

Second, the study of both rhetoric and risk are important for programs in technical and scientific communication. Hazards and risk perception in technical communication can include topics such as these:

    (a) Ways to respond to the nearly 50 known social and psychological "outrage" factors that affect people's perceptions of risk; responses might include warnings, instructions, signage, PSAs, as well as extended written, oral, and visual information;

    (b) Ways to address limited literacy audiences;

    (c) Ways to increase usability of information;

    (d) Ways to increase audience compliance with risk information; and

    (e) Ways to use visuals and design to reduce risk (and liability).

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Birth of a Research Center: Connections Between Hazards Research and Risk Communication

Jamie Brown Kruse, East Carolina University

The creation of a multidisciplinary research center is a challenging task. When the mission of the center is to produce high quality publications in archival journals on the topic of natural hazards and communicate the research findings in useable form to the general public, the challenge intensifies. The very nature of research on natural hazards places the interaction between human behavior and the natural environment at the forefront. In order to mitigate the risk posed by hurricanes, tornadoes, and earthquakes, people must understand the potential losses associated with their decisions. Decisions on where and what to build, how to respond to eminent threats, and how to plan for recovery depend on knowledge of the risks associated with all possible alternative actions. The decision environment spans time domains that range from a few minutes to hundreds of years.

We explore the integral role of risk communication in the creation and development of the outreach program of the Thomas Harriot Center for Hazards Research at East Carolina University. Risk communication takes place at many different levels through a variety of media because of the variation in age and education of the stakeholders.

produced by the center and distilled to policy briefs for public consumption.

Much of the first year of operation has been devoted to a thoughtful website design that serves as an information clearing house for users spanning the set of academic researchers, educators for K-12, government officials, homeowners, business owners, and other private entities. Other media intended to reach vulnerable populations are a part of the risk communication portfolio. Another major objective has been to create an identity and cohesive format for all Hazards Research Center materials.

A research program on risk communication is developing concurrently with the Hazards Research Center. Interesting research questions about how individuals assimilate risk information and convert the information into decisions and actions arise naturally. Different methods of risk communication become treatment variables in experiments designed to measure the effect of the message on human behavior. This will give rise to better risk communication tools for promoting voluntary mitigation and organizing emergency response.

Scholarly work is presented in a working paper series

Birth of a Research Center II: Leveraging Multi-Disciplinarity

Donna J. Kain, East Carolina University

Perception of risk is created, at least in part, by the "political and economic conditions that influence expert assessments " (Sapp, 2003), the public's reaction to those assessments, and institutional responses to both. Risk communication, which attempts to mediate these positions, is an important area of risk mitigation and includes developing information about risks, providing information about risks to the public, and engaging governments, stakeholders, and publics in evaluations of and decision-making about risks (Klinke and Renn, 2002).

Individuals' and communities' abilities to understand and use information about risk depend on access to information, which is determined by the alignment of dissemination and reception. Consequently, risk communication researchers investigate the ways that developers of information about risk choose to make it available, as well as whether and how audiences access and process it (Kahlor et. al., 2003). Risk communication research, and the related body of literature, emerges from the fields of "risk assessment, cognitive psychology" and technical and professional communication (Grabill and Simmons, 1998) and encompasses a variety of different approaches to understanding risk and research methods (quantitative and qualitative) for evaluating information about risks.

An increasingly important avenue of risk communication research is assessing the ways in which risk assessment and risk communication shape and are shaped by public policy. One of the challenges in researching this area is theorizing the ways in which differences among communities involved in the process and outcomes, including their discourses, genres, and activities, are negotiated. Researching risk communication and its consequential impacts on public policy necessitates that professional communication researchers interact and collaborate with experts in various fields that contribute to risk assessment, for example economics, natural sciences, and engineering, as well as with the public.

Multi-disciplinary collaborations, such as East Carolina University's Center for Hazards Research, offer unique opportunities for researchers from various fields to leverage differences to develop new opportunities for collaborative research, enhance research quality, and investigate the complex web of factors that influence public policy.

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Creating a Framework to Build On: Revising the Undergraduate Program in a Department of English

Michelle F. Eble, East Carolina University

East Carolina University has a very successful Master's degree program with a concentration in technical and professional communication housed in the Department of English. Because of its success and committed faculty in technical and professional communication, linguistics, rhetoric and writing, and multicultural literature, we just admitted doctoral students for the second year into our new PhD program in technical and professional discourse. With strong, growing programs (both in the number of students and in faculty) at the graduate level, I have focused my attention on the undergraduate program within our department. I represented the technical and professional communication faculty on the curriculum revision ad hoc committee and have recently been named one of the four advisors for those majoring in English. Prior to this committee being formed, the department did not support a proposed BA in English with a concentration in rhetorical studies and professional writing. In fact, it was vehemently opposed by a small group of influential people. With the exception of a few meetings, the ad hoc committee worked well together (a majority were tenure-track faculty in their first 3 years), and we were able to make some changes to the curriculum. Students now have more choice within the major and they are only required to take one prescribed course: Shakespeare. Three other courses within the core curriculum give students a choice among several courses, and students choose, according to their interests and/or goals, eight courses among the department's course offerings to fulfill the rest of their credit hours.

While I was hoping for sweeping changes to the curriculum and a concentration or focus in rhetoric and professional writing, I realized early on that a change that would allow us to make additions and revisions in the years to come might be a better use of our time. In my brief presentation, I will present the framework we created, as well as the revised curriculum, and discuss ways we intend to build an area of focus in rhetoric and professional writing within this framework. One of the early successes of our work included the approval of three new courses: Introduction to Professional Writing, Introduction to Rhetorical Studies, and Persuasive Writing. I hope this discussion might interest those contemplating revisions to their existing programs, those creating new programs, and those experienced in administering these types of programs.

Research and External Funding Can Change a MS Curriculum

Ann Jennings, University of Houston-Downtown

Sometimes one faculty member's research can affect the content of several courses in a graduate program, including courses that this individual has not taught. Such a scenario is developing in the MS in Professional Writing and Technical Communication at the University of Houston-Downtown.

In addition to doing research on ethics in technical communication, I have been charged with attempting to obtain grants for the program. I determined that a proposal to add an ethics element to our four required core graduate courses would dovetail with the intent of one of the special programs of the National Endowment for the Humanities. This program is "Humanities Initiatives for Faculty at Presidentially Designated Institutions: Hispanic-Serving Institutions." The other members of the graduate faculty agreed and signed letters of commitment to participate in the grant activities. Several of their letters mention the effect that the grant could have on their own research and on the content of other graduate and undergraduate courses they teach.

Working closely with an NEH grant officer, I have assembled a proposal for a workshop series to be attended by the instructors in the master's program and to be presented by six visiting scholars of philosophy and the ethics of technical communication. The objectives of the grant activities are to enhance faculty familiarity with ethics and to prepare ethics case studies to be used in the four required core graduate courses. Faculty development will include a significant quantity of reading in classical and modern philosophy, as well as lengthy discussions with the six visiting scholars.

The master's program is new, and by the time the grant is received (NEH will announce the winners in Spring 2006), the core courses will have been taught only twice. The syllabi are flexible, which means that ethics readings and case studies can be added if some activity currently included in every syllabus is removed. In addition, these courses will rotate throughout the graduate faculty. Thus, all faculty must become familiar with case studies as a pedagogical tool. Faculty should become comfortable with ethics and the creation of case studies during the workshops with the visiting scholars, as well as during a retreat in which the case studies will be developed and applied to the four core courses. Mary Sue MacNealy's "Toward Better Case Study Research" and Julia M. Williams and Judith B. Stother's "Introduction to the Special Issue on New Case Studies for Technical and Professional Communication Courses" should help point the way to the proper creation of case studies for our four core master's courses.

The discussion questions are these: What is the wisdom of allowing a research-stimulated funding opportunity to determine part of the content of the core courses of a graduate program? What are the implications of allowing one person's research interests (which are conveniently suited to the NEH grant) to direct faculty training and to change a master's curriculum?

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Growing Pains: Implementing a New Doctoral Program

Janice Tovey, East Carolina University

With a new PhD in Technical and Professional Discourse in our department now a year old, a review of the implementation and results of the first year is appropriate. Evaluation and review of a new program brings to light its successes as it raises questions.

Among the issues that have to be considered are the admissions process and the students themselves: their expectations and abilities as well as their experiences. The faculty also brings its own expectations, often conventions, to the process. Some faculty prefer to deal with the familiar; that is, they would like the graduate school experience to mimic their own. They were comfortable and successful in their programs and want—or even expect—their doctoral level students to have the same experience. But intervening years bring about change: new ideas and theories and conventions. Programs, at all levels, must reflect not only the past but the present as well.

Among the many issues to be considered with a new program are the changes that it brings to an entire department. A doctoral program that focuses on one or two disciplines in a multi-discipline department, such as is often the case with English departments, can be a disruption. Even though a doctoral program, in theory, might encompass all discplines in a department, some of the individual faculty could feel as though they have no contribution to make.

Creating a program of coursework and research that encourages new and creative ways of thinking about a discipline and its relationship to other disciplines is one key to success. Involving all faculty in aspects of the decision-making process for the coursework in a doctoral program could also make the transition easier.

Possible questions in reviewing a doctoral program are: By what criteria are the students chosen for admission into the PhD program? What requirements have been established and how are the courses and faculty chosen? What research methods are emphasized? Who determines course content: are faculty involved in the decisions, or is it mandated? Who advises the students and who has access to them? What opportunites for research do the students have and who makes those decisions? What effect or influence does the new doctoral program have on the masters and undergraduate programs? How is the organizational communication handled?

These questions provide merely a starting point for discussion for many aspects of academic programs. As a program grows, we must continue to evaluate, review, and adjust so that faculty, students, departments, and the profession all benefit from these PhD programs.

E-Learning: Research and Curriculum/Program Development

Sherry Southard, East Carolina University

In Fall 2000, technical and professional communication (tpc) faculty at East Carolina University began offering online courses for a 15 s.h. post-baccalaureate Certificate in Professional Communication. The faculty now also offer the MA in English, concentration in Technical and Professional Communication, as both campus and online programs.

In order to provide e-learning that meets the needs of students, tpc faculty have consulted appropriate research, as well as conducted their own research. Those intertwined research agendas have been at the heart of course and program development.

At first, and continuing to some extent, faculty found that their students often faced technology difficulties. Those difficulties were investigated in Rubens and Southard's "Students' Technological Difficulties in Using Web-Based Learning Environments." The book chapter was informed by what was occurring in the virtual e-learning environments, but also produced results that then informed those same environments, leading to course revisions.

Many of the online courses use discussion, but also use it in a variety of ways. Faculty wanted to determine how to most effectively use discussion, but also discover some theoretical underpinnings for that discussion, thus the work appearing in Henze and Southard's "Electronic Discussion as Genre in Distance Learning." Professional Studies Review: An Interdisciplinary Journal.

Another concern has involved students and faculty establishing community and a "sense of community" in both courses and programs. Currently, in progress is "Establishing a 'Sense of Community' in Academic Distance Education Environments" [Christine Cranford, Sherry Southard, and Josh Woods]. In this study of e-learning environments, faculty view them as discourse communities containing several types of community that contribute to students' sense of belonging and participation (community of person, community of support, and community of learning), all based on students' developing a sense of trust and respect.

In addition, to present needed content, faculty currently are investigating multimedia discourse and how to best incorporate it into the curriculum of online courses.

The 5-minute presentation would focus on emerging technologies as a driving force for change and innovation in East Carolina University's technical and professional communication e-learning environments, not on a specific faculty or faculty's research.

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Research Questions, Identity, and Survival

Carolyn Rude, Virginia Tech

A colleague in engineering, meeting me and learning for the first time of an academic program in technical and professional communication, asked: What are the research questions in your field? I mumbled an uncertain answer and immediately wondered how many of us would answer his question in a way to suggest the purpose and coherence of our separate projects. Would we agree about our overriding research question or questions? The engineer's question is a profound one for the identity of programs. One of the ways in which we know any academic field is by the research it conducts. In a communication field, the question is particularly challenging because of overlaps with other communication fields and with content areas. To have an academic identity, we need some consensus on the value we bring to knowledge and a sense of sustained inquiry that gives our specific questions meaning beyond specific practices.

To get a sense of how the field is currently framing its research questions, I examined the calls for papers or proposals posted on ATTW-L for the past 18 months, as well as two calls for research grants programs (CPTSC, STC). The ATTW-L calls were for seven special issues of journals—TCQ (3), JBTC, IEEE, and TC (2)—as well as for two collections and three conferences. (Several other calls were not targeted to technical communication.) These calls might point to questions that the field thinks are important for the near future. Individually, each one poses interesting and contemporary problems.

Collectively, the calls point to change as the circumstance driving our current inquiries, with the dominant changes being technology and globalization and particular changes being online education, outsourcing, technology transfer, distributed work, new skill sets, accessibility, information design, and content management. These changes are related to professional practice and secondarily to pedagogy. From one perspective, the calls are reason for optimism: envisioning the future and preparing for it. The dark side of change is anxiety about survival. From this perspective, the research question is this: How can we adapt practice to continue to have jobs? One answer is expansion of the spheres of influence and practice: global settings, interface design, technology transfer.

If I had been the engineering professor trying to learn about this field from these calls, I might have concluded that it is engaged by questions of professional practice, but I might not have been able to answer what the field adds to the world's knowledge and work. What would be lost if our work vanished? What do we bring to usability studies, information management, and interface design that psychologists, librarians, and instructional technologists do not? What do we bring to communication that journalism and composition do not? Our dominant research question lies in these gaps.

This field grew up because of jobs. But an academic field survives because it has an identity based on the knowledge it generates, in turn based on the research questions asked. We need to ask questions about professional practice so that we don't become obsolete in a changing world, but we also need to define our identity in comprehensive research questions.

Morphing the Image of the English Scholars in Technical and Professional Communication Programs

Kelli Cargile Cook, Utah State University

Image one: Traditional English Scholars

Consider this image of traditional English scholars. Like their patron saint, The Clerk from Chaucer's Canterbury Tales, traditional English scholars live their lives in quiet contemplation: "For he would rather have at his bed's head/ Some twenty books, all bound in black and red,/ Of Aristotle and his philosophy/ Than rich robes, fiddle, or gay psaltery…./ But all that he might borrow from a friend/On books and learning he would swiftly spend…" Secluded—reading, annotating, and writing, by hand, analyses of dusty literary texts—traditional English scholars need little more than solitude, library archives, quiet offices, and writing materials to conduct their research.

Image two: Technological English Scholars

Now consider this image of scholars in the same English department: The scene shifts from a solitary scholar ensconced in a library to a group of scholars in a computer lab. The lab is filled with hardware and the software that drives it—multiple computer stations, flat-screen monitors, scanners, printers, and audio and video equipment. Fractals spin and dance across one monitor as the latest mp3 release plays. A researcher composes a hypertext at a nearby machine, editing images and music with the click of the mouse. On the other side of the lab, a second scholar consults as three students design a video game, planning the narrative and debating the rhetorical moves that will keep players engaged.

While the first image may seem stereotypical, recent literary studies hires in our department are somewhat similar. Often they require little more than a computer (not necessarily a fast one), a budget for travel and book purchases, and an office for planning classes and meeting with students. Research start-up packages and new faculty grants awarded to English faculty are typically spent on travel abroad to visit libraries and other archives. Our hires in professional and technical writing and computers and writing, as depicted in image two, have vastly different research needs, involving significant technology purchases rather than travel funding. These needs, in reality, are more comparable to the laboratories provided for scientists and engineers than those of a traditional English scholar. To be fair, I concede that even literary studies faculty members' research and teaching needs are changing as they rely more heavily on electronic resources to conduct their research and teach their classes. Perhaps, considering these changes, the first image of the cloistered English scholar is completely outdated, no longer accurately depicting even our literary studies faculty. Yet it is still alive and well, we have discovered, in administrative minds when they describe how they believe we, as English scholars, conduct our research. How can we, as faculty and program directors, change their mental image from the stereotypical one to one that more accurately reflects our current visage?

Educating our university administrators about our research and, therefore changing our image as English scholars, has become a major undertaking in our program. We think of this process as morphing our image. In the most general terms, morphing is a process that transforms one image, through a series of almost imperceptible changes, pixel by pixel, into another image. Along the way, innumerable images are created, each one slightly different from the one before and after. From beginning to end, morphing moves from one image to another, but the first image is not always subsumed by the second. The final product may lie somewhere in between with features derived from both the beginning and ending images.

We have used the term "morphing" to describe our efforts because it depicts the slow and incremental process of educating our administrators. It also suggests that we, as the most technological faculty members in our department, are different but not indistinguishable from traditional English scholars who work with us.

We share many characteristics—a desire to study texts (however they are defined) and a willingness to share what we know and have learned with others. We are not entirely unlike them or Chaucer's Clerk, for that matter, for gladly will we learn and gladly teach.

Consequently, the process of morphing our image has required us to draw upon our best practices as rhetoricians, making arguments for significant investments in our new faculty. At the same time, it has required us to accept the burdens of these significant investments—if we require more research investment, then our research must return more investment to the University, as a whole, through grants and other funding sources. Our research agendas must now not only produce knowledge for the field, but also bring in dollars to sustain themselves. This requirement has brought its own challenge as we struggle to find sources of outside funding that will support research in technical and professional communication.

As chair of the undergraduate program in technical and professional communication, I work with my senior colleagues to articulate our research agendas to administrators who still think of us as traditional English scholars and who question the relevance of our research to English Studies. I also support my junior colleagues as they seek the resources they need to do their work. We all continue to work with our research office administrators, educating them about the research we can and will do and mining their knowledge of grant-making resources to identify more opportunities that will fund our work. Our greatest challenge, as yet unresolved, remains the consistent identification of grants that will support our research.

As this morphing process continues, we recognize that these shifts may transform us as a faculty, a program, and a department. How these subtle shifts will finally transform the face of our department we do not yet know.

What we do know is that we have more work to do. I would like to discuss questions related to this work with CPTSC participants:

1. What can junior and senior faculty members in technical, professional, and scientific communication programs do to raise our research profiles within our own department and throughout our university?
2. How we can become more adept and successful at grant-making?
3. How can senior faculty members better mentor and collaborate with junior faculty members in developing external funding expertise?
4. How can we, as a field, raise the profile of technical, professional, and scientific communication to promote more external funding opportunities?

Connecting Programs and Research Through Political Economy Analysis

Ryan M. Moeller, Utah State University

One way to connect technical writing programs with English departments and humanities colleges and with the scholars who are conducting research in both is through political economy analysis (PEA). I will briefly define what I mean by PEA, provide examples from my own situation as a new faculty member in an English Department, and pose some questions to the audience for discussion.

In his *Politics of Letters*, Richard Ohmann explicates the basic methodology of PEA as placing the object of study against a superstructure that mediates culture and ideas through ideological institutions which serve as a means of preserving and reproducing class structure (1987). By superstructure, he means laws, institutions, culture, beliefs, values, customs, etc. Similarly, Sarah Collinson defines PEA as "[focusing] on the distribution of power and wealth between different groups and individuals, and on the processes that create, sustain and transform these relationships over time" (2000). When we apply PEA to the research paradigm in the humanities, and to English departments in particular, several challenges for researchers in technical writing arise.

Often in English departments, power and wealth are distributed along the same lines as tenure and promotion are rewarded. This means that teaching and publications are the name of the game. But more and more, external sources of funding are needed to accomplish basic teaching and research outcomes. And external funding benefits the departments we serve and the universities we work under. For example, one NSF grant in our department funded our travel money for several years. But this type of activity—locating, applying for, and securing external grants—is not often rewarded beyond itself in terms of the material conditions for tenure and promotion. Moreover, our work is easily dismissed as being too theoretical, too practical, too technical, and so on by our colleagues in English departments. We certainly have different needs and study different "texts" than those whose research is based purely within the discourse of the book. Bernadette Longo has argued that cultural studies—the analysis and critique of situated, institutional relationships based upon power and knowledge—can turn our attention to our own situations within programs, departments, and institutions as a way of connecting our research to our communities (1998). And this panel is an example of just this connection.

So, as my excellent mentor and co-presenter Kelli Cargile Cook has said, we need to be ethnographers, field workers who scour our programs and departments for clues as to who the insiders are, how they are getting money and support for their research, and how to become an "insider" (or "powerholder," or "stakeholder," or "faculty"—choose the term that best fits here). But, we also need to realize that as we move into positions of power ourselves, we will be changing the class structure of the institutions we align ourselves with—technical writing programs, English departments, colleges, universities, etc. And while this may ultimately be a good thing, we need to be self-reflective in the process in order to understand how those changes affect others, possibly in negative ways. And this self-reflective process will be helpful in understanding the challenges we face while negotiating the material conditions of tenure, promotion, research, and collegiality.

Questions for discussion

· What are some ways that we are incorporating PEA and self-reflective practices into our research lives productively? Are there other ways to do this?

· I have argued that research in the technical writing field is more dependent upon external sources of funding and requires additional technologies and research support than most other areas with English departments. What changes will our success as researchers have on the institutional culture of

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our departments and programs as we currently experience it? What form might resistance to these changes take?

· Do the sciences and engineering offer better models for thinking about our relationships to our own programs? Should factors like major grants awarded and lab research be weighted more heavily in our tenure and promotion decisions than teaching or publications? What will be the long-term impact(s) of this change on our research outcomes?

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Designing Educational Spaces for Students and Colleagues

Cheryl E. Ball, Utah State University

My title is assistant professor of computers and writing. When I arrived on campus, my startup package included a computer and an iPod to continue my multimodal composition research. But the teaching part of my research quickly became problematic. My colleagues weren't sure of my research and so they couldn't understand my teaching. For example, I was asked to teach a video-editing class, but there were no video cameras. And no access to a computer lab. Later in the semester, I wondered why students in the class couldn't save Photoshop files to the server. The system administrator explained that students only have 8 megs of space, "Large enough for the Word docs they write in English classes," he said.

What I had been hired to do versus what I could do reversed the chronology of English scholarship that Kelli Cargile Cook presented earlier and made me wonder whether I would get tenure. A story, no doubt, that many of us face as we struggle to figure out how to make our nontraditional teaching and research doable amidst the poor political economies of our departments as played out in the lack of funding in traditional English Departments for new technologies.

Ryan Moeller and I (with the indispensable help of Kelli and Mark Zachry) realized we had to educate our administrators about the research roles of professional writing faculty. With one week's planning, we walked into a meeting with the VP of Research to ask for more start-up funds, funds inline with but not nearly the amount a science faculty member would expect. We explained our research collectively as studies on the impact of technology on culture. We were a united front, demonstrating a new wave of research, and we could point to our new PhD program as evidence of that morphing scholarship.

We received $50,000 from our department head, dean, and the vice president for research and enough hardware, software, and video cameras to do our research until we could write enough grants to maintain a sustainable budget for a small multimedia lab. This means writing more grants than we'd expected, which changes our research topics in some subtle and not-so-subtle ways, but isn't that part of our changing research roles? (And should it be?)

We convinced the administration, but we still have to educate our English department colleagues as to what our research is. Some of those outreach possibilities include informal faculty colloquia to share research ideas, volunteer technology workshops, and a more open lab environment. I am also working on explaining my research agenda in small, fun ways – ways that don't involve too much technological jargon and that help colleagues see that some of my research looks like theirs, such as the articles I write for scholarly journals. One of these projects I call "Explore the Door," in which I post my current research and teaching projects on the door of my office, with short narratives that describe how my work coheres to my research agenda. As part of the experience, I have open areas for comment and have invited my colleagues to stop by, explore my door, and provide feedback, comments, or critiques.

I would love to hear other suggestions for education and visibility, as well as how you are morphing or have morphed into tenurable faculty members without sacrificing nontraditional research agendas.

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Incorporating and Compensating: Some Challenges of Interdisciplinary Research on Programs Inside and Outside of Technical Communication

Ann Brady, Robert R. Johnson, Thomas Vosecky, Charles Wallace; Michigan Tech

Speaker 1 (Bob Johnson) will explain the theoretical and methodological back ground of our National Science Foundation-funded project* to provide a context for the CPTSC audience. The field of technical, professional and scientific communication (TPSC) has for most intents and purposes always been an interdisciplinary enterprise. It might even be more boldly said that we ARE interdisciplinarity incarnate as we have always worked in, around, and through other disciplines because we deal with a technology fundamental to their work, namely language. Given these strong links to interdisciplinary work, however, you might expect that we would have contributed regularly to the knowledge and practices of those disciplines with which we have engaged. Unfortunately, this has rarely been the case. Instead, we seem to continually borrow from other disciplines to shape our own practices, but seldom do we have impacts on those other disciplines (computer science, engineering, life sciences, and so on) in ways that help them shape their practices. In short, we have played the service role quite well, but we seldom go beyond it.

In our presentation, we will address what George Steiner has called "the act of translation" in interdisciplinary work. Steiner provides a four-stage model for interdisciplinary work that consists of 1) an initiative trust, 2) an incursive and extractive act, 3) an act of incorporation, and 4) a compensatory act of reciprocity (Johnson, 1998). In brief, Steiner's model attempts to explain how multidisciplinary and interdisciplinary research can create commonly shared spheres of meaning. We wish to demonstrate how our research project moves strongly in this direction.

Specifically, we will focus on the final two stages of his model: the acts of incorporation and compensation. Incorporation is the act of taking what meanings have been extracted from another discipline and then placing them into a new arena. Compensation represents the activity of returning and restoring new meaning to the original source.

Drawing upon our experience between our technical communication program and computer science faculty and students at MTU, we will describe some of the ways that technical communicators can actually incorporate our knowledge and practices into the practices of software engineering pedagogy. Conversely, we will also discuss how such research comes full circle and brings new insights back to the TPSC field, as well.

Speaker 2 (Charles Wallace) will describe the discipline in which the act of translation is taking place. At Michigan Tech, an undergraduate degree program in software engineering has been in place for several years. The number of institutions in the United States with degree programs in this field is still small, but growing. Software engineering is an attempt to bring to software development a notion of "repeatable process" and a body of "best practices," in the tradition of other engineering disciplines. Students receive traditional instruction in computer science, but they also get a higher-level perspective on the software process.

Software products generally have deep ties to their underlying domains of use in ways that other engineered products like computer hardware do not. Consequently, much of the software process focuses on the software's customers and users: gleaning their formal knowledge and informal "know-how", and eliciting their requirements for a "satisfactory" product. The cost of modifying a software design to reflect changes in requirements increases dramatically with time.

Within a software firm, the evolution of products over time, in the face of employee turnover, creates a need for a shared history. Furthermore, the need for communication extends beyond the boundaries of the firm; much of today's software development is component-based, the result of a synthesis of semi-independent software pieces, all developed at different places and times.

By and large, the importance of communication in the software process is not adequately reflected in current computer science and software engineering education. There are practical challenges: pairing students with

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real customers is difficult and time-intensive. There also are problems due to the legacy of computing pedagogy. For instance, in introductory programming courses, collaboration among students is often viewed as plagiarism, not as a natural simulation of real software development. The software engineering research in this area has historically been rigid and formal in nature. Only recently have efforts begun to develop more natural and inclusive modes of communication.

I see several ways in which technical communicators engaged in this multidisciplinary project can "give back" through compensatory acts. Software engineering students need an appreciation of the value of communication, moving beyond the cubicle-centered vision of software development and into a more humanistic process of active inquiry. They need to develop a sensitivity to the format, time, and place of communication, and the perspectives of others must be instilled. Perhaps most importantly, they need concrete examples of strategies for encouraging and enriching communication.

Speaker 3 (Ann Brady) will describe how interdisciplinary translation is being enacted by the Scientific and Technical Communication (STC) and Software Engineering (SE) programs at Michigan Tech.

I will first explain how STC programs have incorporated concepts from the field of computer science. Problem solving, for instance, with its emphasis on planning, designing, producing, and revising, has influenced the teaching of writing in significant ways. Two of these are particularly relevant to our understanding of interdisciplinary work because they foreground its reciprocal and compensatory nature.

First, problem solving has offered STC teachers a way to talk about audiences as central to document production and review. Strategic document planning requires that writers familiarize themselves with the needs of their users and the contexts in which users will be working, that they design documents that aim to meet those needs, and that they produce prototypes and revise them based on the feedback their users provide. Those of use involved in the STC/SE project at MTU reciprocate by fostering the growth of SE students in three ways, all of which depend on audience awareness: an increased awareness of the needs and knowledge of all stakeholders, an increased

ability to communicate with stakeholders, and to communicate with stakeholders.

Second, with its inclusion of review and reflection, problem solving provides a rationale for using academic writing portfolios to assess students' writing achievements. The portfolio process includes having students collect their written work during instruction and then review it as the term ends. Portfolios always include statements students write explaining their document selections and how their choices demonstrate their rhetorical skills. Students compile their portfolios based on pre-established criteria, usually focusing on rhetorical strategies and writing that demonstrates quantifiable growth over time. In this particular MTU project, the portfolio process is used both to foster and to assess the progress students make in communicating precisely and effectively with a variety of stakeholders as they develop software for them.

Speaker 4 (Tom Vosecky) will provide concrete examples of how our project accomplishes Steiner's four-stage "act of translation." I will describe how we can enhance Software Engineering programs by incorporating disciplinary methods of Technical and Scientific Communication programs.

My incursion as participant-observer into a Software Engineering Senior Design class allowed me to extract and bring back their viewpoints and place them in our Technical Communication pedagogy as real world examples framed within case studies. Case studies can also be used to advantage in engineering pedagogy, as Kardos and Smith described at the ASEE National Conference on Engineering Case Studies (1979). But as they say, to develop a good case requires a "different mind-set and approach." In Technical and Scientific Communications, our focus on the users of a product (and its documentation) reflects that different mind-set, and we have developed substantial methods to elicit and communicate formal and informal "know-how". Our first act of reciprocity, in compensation for the information we have taken away, is to develop case studies for use in computer science classes. More importantly we have provided those methods to Software Engineering students and faculty, to aid them in developing future

cases.

In our discipline, communication is foregrounded. We record and disseminate information following accepted ethnographic techniques. To answer the need of improved communication in Software Engineering, while at the same time respecting their values and time constraints, we have developed a Primary Research Handbook that provides an entry into effective communication techniques. I will discuss how that handbook will enable computer science students to find their voices, and help them get the information they need from clients and users, and become more sensitive Software Engineers.

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Unexpected Outcomes of Program Collaboration: Opportunities for Research

Michael J. Salvo and Tammy S. Conard-Salvo, Purdue University

We started our project with a simple proposition: Effective collaboration between a Professional and Technical Writing (PTW) program and a Writing Lab benefits both partners. We designed our collaboration to better support two populations: Undergraduates enrolled in PTW service courses and PTW majors in the English Department. Some of the outcomes of collaboration were anticipated, like more efficient cost-sharing, development of Writing Lab pedagogy for technical writing, and integration of PTW curricular goals in tutorials. Some valuable outcomes, particularly for graduate students, were not anticipated. These include: creating research opportunities, using expertise in collaborative projects, cross-program mentoring, and more diverse pedagogical training for graduate students. This presentation argues for the value of intra-program engagement and focuses on the benefits to the PTW program.

Some of the initial outcomes of this collaborative relationship include:

- Training in document design, visual rhetoric, and PTW course documents for Writing Lab tutors;
- Access to computers with advanced software in the Writing Lab for PTW students;
- Facilitation of collaborative projects through an undergraduate liaison internship;
- Development of professional writing experience for students by contributing;
- Discipline-specific materials for the Online Writing Lab; and
- Design methodology and critique for the Online Writing Lab.

In addition, PTW faculty members have acted as usability consultants during the Online Writing Lab's recent website redesign. As a result, the Writing Lab is integrating visual design into tutorials–and teaching user- and reader-centered design across the writing curriculum.

The collaboration between the PTW program and the Writing Lab has generated opportunities for effective mentoring and preparation of graduate students, especially for those interested in pedagogy in multiple modes of writing instruction. Graduate students play administrative roles in both programs, preparing the next generation of writing professionals to effectively collaborate across program boundaries.

As we develop and document our collaboration, we seek answers to recurring questions:

- Have members of the council had applicable experiences that can inform our collaboration? What pitfalls should we take care to avoid?
- What outcomes of the collaboration would be most interesting to teachers of PTW?

We have been surprised to find that cross-program collaboration is not as common as we had believed when we started working together and wonder if institutional barriers hinder effective collaboration. Our goal is to distinguish unique benefits to our institution from those that may be more generalizable so that we may begin to address this question:

- Why establish a collaborative relationship between the Writing Lab and PTW?

A Research-Based Model for Negotiating Workplace Standards in a Client-Based Program

Summer Smith Taylor, Clemson University

In client-based technical communication programs, courses are based on completing deliverables requested by clients, such as a local business or organization. The advantages of this approach for the school to work transition are well-documented (Sapp & Crabtree, Wickliff, Henson and Sutliff, Blakeslee), as are drawbacks that stem from overlapping school and work activity systems (McEachern, Munger, Kastman Breuch).

One of the benefits, and problematic aspects, of client-based programs is their ability bring faculty and workplace standards together for side-by-side examination. In order to make a successful transition from school to work, students need to learn to identify and meet workplace standards. Students in client-based programs frequently fail to understand or accept clients' standards, however (Dannels, Brinkman & van der Geest, Kastman Breuch, Barton and Evans). When students are not learning to identify, accept, and meet workplace standards, client-based programs are not achieving the goal of transitioning students from school to work. Client-based program administrators need to train faculty to negotiate standards with clients and teach students to identify and meet them.

Through research on my award-winning client-based technical communication program, I have identified two frequently used, but unsuccessful, models of negotiating and teaching standards: client-driven and student-driven. I have also developed a new collaborative model that has been successful in my program and have trained faculty in the use of this model. It addresses the two main problems with the existing models: the lack of negotiation in the client-driven model and the lack of guidance for student discovery of standards in the student-driven model. In addition, it not only facilitates assessment of student writing but also formative and summative course assessment by program administrators. In brief, the model involves negotiation of standards by the faculty and client prior to the start of the course, emphasis on teaching students how to identify standards at the beginning of the semester and on accepting the inevitability of changes in those standards during the semester, an expectation that students will use these skills to identify both the client's and the teacher's standards, clear connections between course material and standards, and clear connections between standards and assessment.

Beyond improved student performance and client satisfaction, the collaborative model also helps program directors argue for the worth of client-based projects. The model is more clearly formative and education-focused than common existing models, and helps answer concerns that client-based projects might benefit clients more than students or that the client's role in assessment might be too strong. The model also involves participants in developing a measurable set of outcomes at the project's beginning, enabling summative assessment of the effectiveness of both the project and the course at the semester's end.

The model was developed through research on what worked in my program. It also facilitates assessment research on the program. In discussion, I could address questions such as: How might what works in my program differ from what works in other programs, and how could other program directors design research to find out? How have I trained faculty to use the model I developed? What are some of the formative outcomes of research on their effectiveness?

Technology Transforming Assessment: How E-Portfolios May Change Our Processes and Our Data

Karen Kuralt, University of Arkansas at Little Rock

For the past 12 years, our department has assessed its BA and MA programs in Professional and Technical Writing using portfolios produced by students during their final year of study. The portfolios are comprised of clean paper copies (and occasionally CDs) of projects written for our program's core courses and two elective courses of the students' choosing. Students preface their portfolio selections with a reflective essay and compile their selections into a binder, which is then submitted to the assessment committee for evaluation. This year we are changing our BA assessment process from a paper-based system to a web-based system, using portfolio software from the Open Source Portfolio Initiative (OSPI) and groupware from Sakai. The change is more than cosmetic. Because of the possibilities this new technology offers, we are rethinking our entire assessment process. We believe we can use web-based e-portfolios to enhance our students' learning and get richer data about how well our program is achieving its objectives. In our current process, students often don't hear about "senior portfolios" until the semester they are expected to produce the binders. They are told that the portfolios should demonstrate what they have learned during their time in the program, but the learning objectives measured by our rubric are rarely directly explained. In adopting e-portfolios, we will have to change this process, because the OSPI software is designed to be used all the way through the program, not just at the end. Every student will be made aware of our program's goals from the first time they log into the portfolio system (during the first course they take in the program). Faculty will devise reflective prompts that ask students to explain how they did or didn't meet the learning objectives; students will respond to the prompts and upload documents each semester to make their case. Students can upload as many documents as they want into a private workspace, then customize "presentations" and publish them to different audiences (including the assessment committee, study groups, employers, etc.). Because students will be encouraged to persuade our committee that they did or didn't meet the program's learning objectives – rather than relying on us to draw those conclusions from looking at the papers alone – students will become collaborators in the assessment process. Starting in their very first course, they will have a sense of what we think every college-level writer should know, and they will be actively involved in assessing their own learning every semester, not just at the end of their degree program. The software will also help our assessment committee examine the data in a number of ways. Currently, we look only at how the portfolios demonstrate proficiency in each rubric category. The OSPI software will make it easier for us to see patterns of performance across specific courses and to chart trends in those performances over time. (Unlike paper portfolios, e-portfolios don't disappear at the end of the semester.) We're now working on the challenges of implementing our e-portfolio system: both technical (getting the server working, designing a GUI that works with our rubric, getting access to the system for all our majors) and rhetorical (writing reflective prompts, getting faculty buy-in, training faculty members, and preparing to train our first student users). We're also using this opportunity to reflect on our learning objectives and possibly revise our assessment categories. At this year's conference, I will share our progress and pitfalls so far. What do we like and dislike about the technology? What does our custom interface look like? How are faculty members, both technical and non-technical, responding to the new process? Is this really worth all the trouble? This presentation will promote a discussion of the relationship between technologies and the processes and products of assessment.

Technical Communication Programs: The Need and Struggle for Continual Revision

Elizabeth Pass, James Madison University

In an era of economic and political unrest, student populations are on the rise, creating a crisis of bursting demand and few resources. Couple this problem with the global problem of industries outsourcing and companies downsizing, and the market for graduating seniors looks dimmer than past forecasts.

Technical communication programs have an internal and an external issue: how to serve our students—our constituents—and how to serve ourselves in order to thrive. I believe that programs must continually revise their curriculum and administration to address both internal and external issues; however, their administrative-academic environment typically doesn't allow this.

Internally, for programs to ensure their success, they require continual balancing of many forces. There are political and economical issues to consider; student (and parent), faculty, administration, and taxpayers interests' to weigh; and resource, curriculum, faculty line, and equipment needs to balance. All of these issues (plus many I've surely missed) must be effectively managed while pushing forward into a tenuous future for many academic departments.

Externally, the Institute of Technical and Scientific Communication believes we have an ethical duty to prepare our students for current marketable careers; however, in light of the current political, economic, academic, and administrative environment, we have to choose our programmatic path carefully. We use a multi-pronged approach, using several sources for program research to inform our program administration and programmatic decisions:

- Goal setting and program analysis/market analysis (Allen)
- Assessment analysis
- Traditional research from field and related fields (Henze).

This process has allowed us to make changes and additions to our program, vertically and horizontally, and I will quickly give some specific examples in the five minute presentation.

I believe that for programs to survive—and thrive—in the lightening fast pace of the industry our students will enter we must be in continual revision. The trick comes when programs, burdened with the strings of bureaucratic administrations, try to respond too independently. What does a program choose to weigh more when considering its future? When, despite all the programmatic research and now push comes to shove, who/what loses and who/what wins? Can we put too much emphasis on students when we are trying to meet the demands of the future? Or can we put too much emphasis on staying steadfast to our goals and mission in light of the changing landscape of industry?

I would like to engage the audience in a discussion of how their departments make programmatic decisions when faced with such issues and concerns. Do they find the programmatic research process circumvented? Or is it even more important to them? How do they work around academic bureaucracy in times of tightening budgets and swelling demands?

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Preparing for Innovation in Teaching Online Technical Communication Courses: An Evaluation and Planning Study

Wanda L, Worley, Purdue School of Engineering and Technology

The Technical Communication program is located in the Purdue School of Engineering & Technology. One of the largest academic units at Indiana University- Purdue University Indianapolis (IUPUI), the Purdue School of Engineering & Technology's degree programs are accredited by the Accreditation Board for Engineering and Technology (ABET).

Students in these engineering and technology programs are required to complete one or more Technical Communication (TCM) classes during their programs. TCM courses are also taken as electives by many students in others programs at IUPUI, including Informatics, English, and Computer Science. Additionally, TCM offers a Certificate in Technical Communication, in cooperation with the international Society for Technical Communication and the Departments of English and Communication.

Approximately 15 TCM online sections are scheduled each year. TCM uses IU Oncourse to provide its courses.

> "Oncourse is an online course environment that allows Indiana University faculty and students to create, integrate, use, and maintain Web-based teaching and learning resources. Oncourse offers a straightforward way to create a Web site for every course offered at the university. For students, Oncourse presents learning tools in a single, consistent Web interface. For faculty, Oncourse provides a framework for building teaching environments that can include multimedia content and a wide range of online tools, without requiring knowledge of programming or HTML…." ("What is oncourse?" 1997).

Oncourse is well-used by faculty and students at IUPUI. "As of spring 2004, Oncourse usage exceeded 80,000 users, encompassing an all-campus average of 77% of the faculty and 83% of the students" ("The oncourse story," 2005).

However, the program has its drawbacks and so in early 2004, the Sakai Project was announced. "The Sakai program has its drawbacks and so in early 2004, the Sakai Project was announced. The Sakai Project is a collaboration amongn Indiana University, the University of Michigan, MIT, and Stanford to develop open source software for the needs of higher education. The project was launched with a $2.4M grant from the Andrew W. Mellon Foundation" ("Sakai project launched with Mellon grant," 2004).

As a result of the Sakai Project, IUPUI has a "new" version of Oncourse, called Oncourse CL to begin launch fall 2005 with those faculty who want "to try" the new environment. Mandatory use begins in spring 2006.

Given the extensive changes in Oncourse CL, a fresh assessment of the learners, objectives, desired learning outcomes, activities, and the new tools themselves will be necessary before the Technical Communication program (TCM) can plan the transition to and effective use of the new environment. I will discuss the evaluation I did of Oncourse CL and will present a set of objectives and strategies that will provide the basis of a transition plan for moving TCM online modules and courses to the new environments.

Although my position paper talks specifically about my is a collaboration among Indiana University, the University of Michigan, MIT, and Stanford to develop open source software for the needs of higher education. The project was the issues involved here are the same no matter the program or the university. The larger questions: how is technology driving technical communication program design and curricula design?

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Locating the Service Course: Discerning Disciplinary Patterns From Local Differences in Curricular Placement

Michael Knievel, University of Wyoming

This year's CPTSC call for papers highlights connections between disciplinary research and the academic programs emerging in the wake of, or alongside, such research initiatives. While CPTSC is ostensibly concerned with programmatic concerns in professional and technical communication, the most prominent curricular manifestation of the field at many institutions is oftentimes not "programmatic," but is, rather, a single course: the venerable service course, which is frequently the extent of most students' interaction with technical communication.

Because of this, the course becomes iconic—a singular representation of our field.

Such unique status makes various iterations of the service course—oftentimes relatively similar across institution types—particularly interesting in terms of its differences. In this paper, I am specifically interested in examining and generating discussion about a particular variable across institutions: the curricular placement of the service course. When I refer to "curricular placement," I mean, more precisely, that point in a college or university curriculum at which the service course is offered or required. For instance, some institutions, like Texas Tech, offer theirs at the 2000 (sophomore) level, while others, like the University of Wyoming, offer theirs at the 4000 (senior) level. Many of these differences can be attributed simply enough to institutional idiosyncrasies. At the University of Wyoming, for example, our service course is part of the university's WAC program and fills a particular niche as a W3/WC senior-level writing course.

However, I argue that close attention to differences in curricular placement might help us understand important assumptions held by teachers, scholars, and program directors about technical communication, its disciplinary and institutionally-situated complexity, the desired outcomes of the service course, and the role of student preparation in such a course. Beyond this, curricular placement raises important questions about the relationship between research and the content and purpose of the service course. For instance:

· What impact does a bona fide "programmatic presence" at the undergraduate level have on the service course and the range of topics and literacies it addresses? Given that such programs often rely on a nucleus of faculty members with specialized training in technical communication and, frequently, a research agenda that finds them actively consuming and producing disciplinary knowledge, is it realistic to assume that this work filters down to the service course? If so, does this reality impact curricular placement?

· Are service courses offered in English departments more or less likely to be located in a certain curricular space than those sponsored by other departments? Why?

· What about institutions featuring graduate programs in the field? Does this uniquely concentrated culture of research play a role in curricular placement of the service course? For what reasons?

In this presentation, I offer preliminary results from surveys conducted with program representatives from a range of institutions in an effort to understand the significance of service course placement.

"So What if Science is Rhetorical?" Assessing the Goals of a Rhetoric of Science Teaching and Research Program

Ken Baake, Texas Tech University

The rhetoric of science program has been around for more than 40 years, since Thomas Kuhn published his study of paradigm shifts in science. Yet, it remains unclear what the program's goals should be. English departments offer courses that examine scientific texts as rhetorical artifacts and even as literature. These courses abound with case studies of various scientific projects to show the potency of rhetoric among the scientists for knowledge creation and for distribution to policy makers and the lay public.

The rhetoric of science has its roots in studies of the history of science (science as a sequence of events through time), sociology of science (scientists as a "tribe" of knowledge makers) and the philosophy of science (scientists as dialecticians carefully trimming ideas from each side to arrive at insightful representations of the natural world). Still, as Collier argues, the rhetoric of science and technology "currently lacks the philosophical vision to synthesize its knowledge into a coherent story of science and technology" (2005). Essentially, what Collier argues is that our case studies of science in rhetorical action have proliferated splendid analyses without reassembling them into a synthetic whole—one that could answer the simply stated big question: "So what if science is rhetorical?"

An attempt to address this question and arrive at a meaningful goal for rhetoric of science studies was the 1997 book *Rhetorical Hermeneutics: Invention and Interpretation in the Age of Science*, edited by Gross and Keith. The first essay by Gaonkar in a section aptly titled "Provocations" revealed that when rhetoric is spread too thin in an attempt to cover all aspects of human thinking, its power to provide specific and useful insights is sapped (1997). Although Gaonkar's admonition was met with criticism (and still is), it must continue to be heard as a warning that we will provide little of value to students, fellow scholars, or society by repeatedly pointing out the presence of rhetoric in scientific texts and activities unless we also explain why it matters.

In a program more than a quarter century old, it is time to demand more meaningful outcomes from our studies. It is time to ask, perhaps in crass business jargon, what "deliverables" scholars of the rhetoric of science should provide to students and readers. What are the goals and objectives of a graduate or advanced undergraduate course in the rhetoric of science? Why would a student of technical communication benefit from taking a course in the rhetoric of science instead of, say, in Web design? What learning outcomes should our syllabi promise? Likewise, what are the rewards for reading rhetoric of science articles in Technical Communication Quarterly and similar scholarly journals?

Through this paper and the discussion I hope will follow it, I pose the above questions starkly for those of us who teach some version of the rhetoric of science in our programs of scientific and technical communication. The paper will begin with a brief survey of the syllabi of several graduate level rhetoric of science at major universities to develop points of comparison for teaching strategies. My goal is to discern clues from the syllabi about how colleagues in the field determine an overarching purpose for their rhetoric of science studies. I will also examine recent publication in the rhetoric of science in search of a pattern, both in the subjects of study and in the methods. I will ask in my analysis and discussion prompts if students and scholars who partake in such studies could agree that their lives—as professionals and as human beings—are better for the experience.

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Pondering Convergence: Research and Program Opportunities in Tech Comm Turn in Introductory Writing

Steven T. Benninghoff, Eastern Michigan University

What happens when your first year writing program starts to look like your technical and professional writing program? I'm exaggerating here a bit, but the point needs to be taken that a convergence of research and technical influences on introductory writing programs are shifting the common understanding of them in technical communication's direction.

For example, at my institution several moves currently in place illustrate the impact and issues, both positive and negative, of technical communication research and conceptions seeping into the first year writing program. First, in the past year English Composition I has moved to a genre-focused pedagogy built largely from the socially-embedded and negotiated views of genre (long tradition from Miller to Rude). Second, efforts have been systematically made, through a program called the Celebration of Student Writing, to see writing inside the classroom as functional in the local community. While not exactly our textbook definition of service learning, it is clearly an effort in the direction of a technical communication concept of seeing documents as sites of work in more broad social contexts. Third, a move is underway to deploy a content management system (CMS) as a means to provide online space and support for writing and community development. Employing CMS's in such a position is a recent site of research for Kitalong, Hart-Davidson, and Applen, among others. A fourth area of significant research in technical communication that hasn't yet worked into our introductory writing program, but is fast advancing in others, is visual rhetoric.

Now while I'm characterizing the issue here as a problem for discussion, as it should be, it should also be clear that this convergence is at least in part a mark of the success of our disciplinary and program development. But such success needs to be proactively managed to keep it on the liberatory, developmental, and humanistic course. Stuart Selber's recent work on multiple and digital literacies, attempting to recapture the fluid and situated practice since pejorated from the term functional literacy, is a timely example in this vein. Indeed, since TPC programs are pre-professional they bear a higher burden in technical training (as narrowly understood), and so need to work harder at maintaining flexibility and adaptability, let alone political and cultural situatedness, than introductory literacy courses. Up until recently, however, the introductory literacy courses, digital or traditional, suffered the opposite, being construed as so general as be inapplicable. I think it is fair to see introductory writing programs and parallel computer literacy requirements at universities moving into a technical communication moment, as it were, and this moment affords us a chance to discuss disciplinary and research positioning and goals comparatively, and of course to re-think the beginnings and ends of our programs, both in terms of narrow curricular contents but also broader goals.

Such a broad topic offers a wide array of directions the discussion could take, but here are a pair of starter questions:

1) What is the desirable amount of overlap? How much convergence is good, and when does it become problematic?

2) Where/how can productive research opportunities arise out of the convergence? Are there areas, such as assessment, where convergence hasn't been as quick? Do these provide better research opportunities?

Constructing a Theory/Pedagogy of Professionalism

Marcea K. Seible, Illinois State University

The practice of preparing students as professionals is one of the cornerstones of technical communication pedagogy. But how do we, as technical communicators and instructors, define professionalism? And how do our methods of preparing students to become professionals meet the needs of students in our service courses who come from other fields?

We all practice teaching what we believe to be elements of professionalism: understanding workplace cultures; identifying and writing for discourse communities; ethical and civic responsibilities; troubleshooting problems; and collaborative writing, but we do not all agree on these and other elements.

Moreover, our professional focus in technical communication may often dislocate us from the civic/liberal philosophy that continues to be valued in most universities. Thus, articulating a theory and pedagogy of professionalism that integrates civic studies with workplace discourses could be important to our ability to prepare students for their work as technical communicators and citizens.

In this session, I will discuss why such a theory/pedagogy has value for the service course aspect of technical communication program design by examining three issues:

1. Implications for a theory/pedagogy of professionalism for technical communication programs;
2. The role of teaching professionalism in service sources; and
3. How service learning can contribute to articulating a theory/pedagogy of professionalism.

In addition, I propose that we examine other key questions:

· How does the notion of professionalism subscribe to the philosophy and mission of higher education in terms of vocational vs. liberal education?
· How are we already working toward (or not) a pedagogy of professionalism in our classes and programs?
· What barriers to a theory/pedagogy of professionalism exist?

From here, we can begin articulating a theory and pedagogy of professionalism that will better serve our students, our programs, and our communities. Such a theory/pedagogy may also prove significant to professionalizing our field.

The STC Academic Community: Bringing Practitioners Into Programs

Thomas Barker, Texas Tech University

The profession of technical communication is multifaceted. The three primary professional organizations in our field seem to focus on broad areas that make up the professional concerns of academics: ATTW addresses the pedagogical dimensions of the profession; CPTSC addresses the programmatic dimensions of the profession; STC addresses the practitioner dimension of the profession.

The role of STC, in the eyes of many academics, has always been to provide access to practitioners, persons who are technical writers, illustrators, consultants, editors, and publications managers. Such persons relate to academics in complex ways: they were once entering professionals in academic settings, they understand the value of academic research in design and management to enlightened practice, and they look to the academic world for a source of new, entering professionals.

However, the relationship between academics and practitioners in STC has not always been simple. As R. Stanley Dicks shows in "Cultural Impediments to Understanding: Are They Surmountable," attempts to interact and collaborate between the two groups has often been "thwarted" by cultural differences. In addition, discourse conventions, workplace economic models, and relationships to technology have also impeded the effective collaboration of both groups.

Example 1: Sometimes the practitioner group will take the lead in an area of technology (the development of XML-related technologies is a good case in point), leaving the academic side at a loss for theoretical justifications and giving the appearance of blindly forging ahead, heedless of the larger questions of technological determinism that obsess academics.

Example 2: The academic side of the profession seems to have taken the lead in researching social constructivism, minimalism, and other approaches to software documentation that have not been taken up readily by practitioners and fosters an image of academics as hopelessly theoretical and arcane.

The proposed Academic Community in STC represents yet another attempt to bring academics and professionals into productive collaboration. Questions for discussion include the following:

· Given the differences between applied and basic research, how can the STC-AC set a research agenda that can foster a greater collaboration among academic and practitioner groups?
· Given the differences between the discourse of the academic ("pedagogy," "rhetorical," "colleague") and practitioner ("proactive," "empowerment," "coworker") arenas, how can the STC-AC attempt to foster a common language of cooperation?
· What might be the most productive strategy for the STC-AC to attempt to foster involvement of practitioners in academic programs?

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Connecting Programs and Practitioners Through Research

David Dayton, Towson University

A primary goal of the newly formed Academic Community of the Society for Technical Communication (STC) is to advocate and support research as a collaborative, communal enterprise involving academics, students, and practitioners. As Acting Research Coordinator of the Academic Community, my purpose here is to generate feedback about some proposed initiatives and to gather additional ideas for ways the community could support the CPTSC goal of connecting technical communication programs through research.

At the annual conference of the STC in May 2005, a panel of seven academics led a discussion on research-related issues that could be addressed by the STC Academic Community. The following are some proposed activities that I have selected and ordered from the many suggestions that emerged from that session:

· Form a committee to address issues of respect for academic discourse among practitioners;
· Set up a committee to advise the STC Board on current research grant procedures and ways the STC could help academics identify funding sources in government and industry;
· Organize a peer-reviewed panel at STC's annual conference to present papers on research involving collaboration between academics and practitioners;
· Provide funding specifically to support undergraduate and graduate student research projects focused on practitioners and industry settings;
· Organize poster sessions at STC's annual conference for showcasing research projects carried out by students and/or practitioners;
· Promote the publication in Technical Communication and Intercom of research reports and summaries by graduate and undergraduate students;
· Support the community's creation of a website that can be administered by a small group working through a content-management system, with areas specifically focused on information and conversation about research projects, methods, and funding sources; and
· Explore the feasibility of establishing a short-term grants development position in the STC office to be staffed on a rotating basis by an academic on sabbatical or other temporary leave, or by a recently retired academic.

Which of these objectives seem most worthwhile? Which seem capable of contributing most to our goal of connecting programs and research? What additional research-related initiatives might the STC Academic Community add to its short- and mid-range agendas?

The STC Academic Community: Encouraging Connections With Students and Alumni

Elizabeth O. (Betsy) Smith, Auburn University

The academic community and CPTSC members can strengthen ties to the Society for Technical Communication by encouraging students to participate in STC activities and to take advantage of the network of professional technical communicators—many alumni of a technical communication program.

STC supports students through scholarships and the honor fraternities Sigma Tau Chi and Alpha Sigma. STC members provide a network for information and contacts for employment. And, many STC members are alumni who are a potential source of scholarship money.

STC Honor Societies and Scholarship

The STC honor societies, Sigma Tau Chi and Alpha Sigma, recognize students for their academic achievement and contributions to STC chapters. The honor societies are the only international-level recognition specific to technical communication. Students as well as academic programs benefit from the recognition.

- What can CPTSC members do to encourage student participation in STC?
- What can CPTSC do to promote the honor societies?
- How can an academic program build upon STC's recognition of its students?

Academic Initiatives

Academics can initiate events that will bring professionals and students together. For example, members of the Birmingham chapter of STC and Auburn University faculty initiated an all day conference in the spring that brings students and professionals together. STC members from nearby cities who cannot get to professional chapter meetings also attend. From these annual conferences, students have found summer internships, leads to full time employment, and visits to job sites to see technical communicators in action.

- What types of gatherings have CPTSC members found successful?
- How can we get more faculty, students, and friends of the department involved?

Alumni Giving

Awards and scholarships recognizing student achievements rely on donations from alumni, faculty, and friends. For example, for the last five years, the STC Birmingham chapter has provided a scholarship to an Auburn University student. Many of the chapter members are Auburn alumni.

- What can we do to encourage our alumni to establish and contribute to scholarships?
- How can we encourage giving that complements our university's alumni association solicitations.

CPTSC members, especially those also members of the STC Academic Community, have multiple opportunities to connect students with professionals, particularly their alumni. These connections provide opportunities for enhancing students' experiences while in the program and developing strong advocates for the program as alumni.

The Academic Politics of Bringing Consulting Work into a Certificate Program

Tracy Bridgeford, University of Nebraska at Omaha

Deborah Bosley, in her chapter of Reshaping Technical Communication, recommends that technical communication researchers and teachers engage in consultant work in order to build boundaries between the world of work and the technical communication classroom (2002). I agree that these links can help enhance our perspective of workplace writing, provide strategies for communicating across them, and better inform curriculum and programmatic philosophies and practices in the classroom.

But my experience has proven to be different from Bosley's. For the past three years, I have been working as a consultant for UNO's Academic Affairs, designing and redesigning their current website, standardizing their forms, and training the secretary to maintain their Web site.

When I was first offered the position, I excitedly told my chair about it, emphasizing the wealth of information it would bring to the program, as well as to my teaching and research. Although he was happy for me, his first reaction was disbelief that the administration could find that much money for what he considered "extra" activities, but when it came to adding sections of composition or a new tenure line, they had no money.

It was from that perspective that he advised me not to publicize my work with Academic Affairs among my English colleagues, especially the salary. Now, I might not have shared the salary, but I would have liked to talk with my colleagues about the value of such consulting, both to students in the certificate program and to the department as a whole. My colleagues tend to regard the technical communication courses, and the Technical Communication Graduate Certificate program, as "practical" (in the low sense). By asking me to keep quiet about my on-campus consulting activities, my chair was in essence asking me to be complicit in the continued marginalization of my program.

What bothers me about this situation, and what I would like to discuss, is a missed opportunity to actively engage my colleagues in ways that may help them to see beyond the perceived "mere technological skill" in my work and that of certificate students. I'm particularly interested in discussing how to develop a more "programmatic voice" in discussions with my colleagues in ways that will help them understand the certificate program as theoretically informed practice.

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Musical Chairs with More Chairs Than Players: Challenges and Solutions for Hiring Professional & Technical Communication Specialists at Teaching-Focused Universities

Kaye Adkins, Missouri Western State College; Molly Johnson, University of Houston – Downtown; Bruce Maylath, University of Wisconsin – Stout

The ATTW listserv witnessed a flurry of discussion in March 2005 when a Ph.D. candidate identified what she saw as "a troubling trend…a tendency to try to push the timeline, by having early phone interviews and even campus visits or offers extended, pre-MLA, which speaks to a lack of a consensus on what the timing should be for hiring in our field" (Carter, 2005). Several respondents, including this paper's authors, pointed out that this trend was fueled by a labor shortage. With many more professional and technical communication positions than qualified candidates (Cook, 2002; Cook, Thrall, and Zachry, 2003; Rude and Cook, 2002), universities with lower teaching loads were succeeding at hiring from a limited candidate pool while universities with higher teaching loads had less successful— often failed—searches. One of us asked the listserv audience, "Are we simply unable to compete with 'bigger' programs to attract faculty? In other words, are we out of luck?" (Adkins, 2005). In this paper and discussion, we wish to point out the challenges for teaching universities competing with research universities for professional and technical communication specialists when the positions open around the continent outnumber the qualified candidates. Further, we will point out the natural reactions and propose what we hope are more equitable solutions.

Challenge 1: Modern Language Association hiring guidelines for English departments
Presenter: Bruce Maylath
Challenge 2: Attracting qualified candidates
Presenter: Kaye Adkins
Challenge 3: Altering hiring and tenure practices
Presenter: Molly Johnson

Challenge 1: Modern Language Association hiring guidelines for English departments

Because the majority of professional and technical communication programs are housed in English departments, most positions in professional and technical communication adhere to the MLA hiring guidelines for the scheduling of advertising and interviewing. The MLA guidelines were developed during the last decades of the 20th century in response to the labor glut (oversupply) and position shortage (underdemand) in English and American literature. The guidelines do not take into account a reverse situation, which professional and technical communication has been experiencing (along with composition/rhetoric, to a lesser extent). The labor shortage has affected technical communication programs at teaching universities and colleges severely enough to prompt some to abandon the guidelines, namely by advertising positions, scheduling interviews, and extending job offers before the MLA convention, in order to gain a jump on other schools. As this practice has gained notice and spread, it has led to charges of unfairness by those still adhering to the guidelines and by candidates who would like to pick and choose from near-simultaneous, multiple job offers extended in the weeks following the MLA convention.

Specifically, the challenges of the MLA hiring guidelines are as follows:
- The MLA's guidelines for scheduling the interviewing and hiring of faculty candidates do not acknowledge the Law of Supply and Demand, particularly in the field of technical communication. Moreover, funding for positions does not always align with the MLA's hiring calendar.
- Other academic disciplines are not bound to interviewing and hiring schedules that conflict with their universities' and colleges' needs or funding. Deans unaccustomed with MLA do not consider the guidelines wise or even legitimate. To boot, some of the most successful academic

technical communication programs are not housed in English departments at all or even colleges of arts and sciences, but in colleges of engineering, agriculture, and the like. These departments and colleges have a long history of ignoring MLA membership and guidelines.

- MLA guidelines assume a pledge of fealty to the MLA over universities' and colleges' own missions, boards of regents or trustees, students, and administrations.
- MLA guidelines favor universities and colleges with large treasuries over those without. Many universities and colleges lacking sufficient treasuries are already forced to avoid interviewing at the MLA convention and instead conduct telephone interviews before the convention.

To date, departments, programs, and colleges have been responding to these challenges in their own ways. A better solution may be for professional and technical communication organizations to take their own stand, apart from MLA's. With this in mind and with the approval of their executive committees, the outgoing and incoming presidents of CPTSC and ATTW met on 17 March 2005 in San Francisco to discuss the possibility of their organizations' drafting a joint position statement on academic hiring in professional and technical communication. Part of this session will focus discussion on the statement drafted.

Challenge 2: Attracting qualified candidates

When an English department announces a position in literature, it may receive nearly a hundred applications. However, when that department announces an opening in technical communication, it may be lucky to hear from a dozen qualified applicants. When Carolyn Rude and Kelli Cargile Cook identified this problem in their 2004 article in *Technical Communication Quarterly*, they discussed its effects on the entire field, including its effect on doctoral programs. However, the shortage of candidates in technical communication makes it especially difficult for smaller institutions to compete with larger, more well-known programs.

Ph.D. candidates come to the job market fresh from Research I institutions, where they have been focusing on research, conference presentations, and even publication. They may be unfamiliar with the smaller schools, unaware of how extensive the undergraduate degree programs are at these schools, and unacquainted with these programs' emphasis on preparation for careers in professional and technical communication. Many are surprised to discover that, in the aggregate, teaching-focused universities and colleges hire more faculty members than research institutions do.

Smaller schools face additional challenges in hiring faculty. They often have 4/4 teaching loads and expect all members of the English Department faculty in English Departments to teach freshman composition as part of their regular load.

Because of the tight job market for technical communication faculty, hiring committees at teaching universities face special challenges:

- Hiring committees must write a position announcement that will attract qualified candidates and honestly reflect the expectations and mission of the institution.
- Hiring committees must choose not only candidates who are qualified but also those who seem truly interested in a small-campus setting. Such considerations can steer committees to decide not to interview outstanding candidates who may seem destined for "big-name," research-centered programs, even if the candidates seem to be superior teachers.

Because those outside of technical communication may be unfamiliar with the field and with its labor situation, technical communication faculty may have to educate colleagues and administrators about the competitive nature of the field and about the challenges of a technical communication faculty search.

- English departments may be reluctant to use a tenure line to hire a technical communication specialist, especially if the department has had unsuccessful technical communication searches recently or has had high turnover in the field.
- Administrators may not understand that salaries for technical communication faculty are generally higher than salaries for many disciplines in the humanities.

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• The tight market can require successful searches to take more than one hiring cycle.

A key challenge for smaller, teaching-focused universities is to communicate their advantages to job candidates: teaching is usually highly valued, faculty members have the opportunity to mentor undergraduates and, once hired, those undergraduates strengthen a program's ties to industry. Research expectations at teaching universities are less pronounced than those at larger institutions. Part of this session will focus discussion on hiring strategies that can be used by teaching institutions and on ways that graduate faculties at Ph.D.-granting institutions can help teaching universities identify qualified, interested candidates.

Challenge 3: Altering hiring and tenure practices
As we have already established, the limited number of technical communication Ph.D.s produced each year cannot fill the present needs of the discipline. In addition, encouraging these few doctoral students to seek positions at research institutions further limits the applicant pool for teaching institutions. Under these constraints, hiring committees at teaching institutions may find themselves in the difficult position of recruiting from doctoral programs in other disciplines or developing tenured colleagues from subject-matter experts (SMEs) with relevant terminal degrees. Because these alternatives radically alter traditional search and tenure practices, hiring committees may be unwilling or unable to consider applicants without technical communication degrees.

In a recent *Chronicle of Higher Education* article, "Outside, Over There" (13 May 2005), Alexandra Lord suggests that many in humanities, science, and technology are leaving academe because they cannot find tenure-track jobs that "draw on their education, reflect their values, and enable them to pay their bills." Our teaching universities certainly have tenure-track positions and students who could benefit from content specialists. Why not actively recruit these disenchanted subject matter experts into technical writing programs, which would value such expertise?

Recent applicants to the University of Houston – Downtown's program have come from cultural studies,

education, discourse studies, and law. Although these applicants have not had academic credentials in technical communication, they have had technical writing experience, a combination that increases their potential as valued colleagues. However, mentoring faculty with neither technical writing degrees nor experience, as suggested above, would undoubtedly require alterations in traditional tenure process, such as:

a) Delaying the start of tenure-track. One technical university hires non-technical writing faculty, then creates tenure-track scholars through a formal, 2-year training program. Once applicants complete the training phase, their position automatically converts to tenure track, creating, in essence, an extended tenure process.

b) Altering the tenure-track process. SMEs with industry experience and a master's degree in technical writing or related field might be hired in tenure-track positions, with the stipulation that they complete a relevant doctoral degree within six years. The required tenure-track publication might be a completed dissertation, reducing or replacing other publication requirements during the traditional tenure process.

c) Developing a formal tenure-track mentor program. To integrate non-technical communication tenure-track faculty into the scholarship of the discipline, a department could institute a formal mentoring program, such as appointing a mentor or mentoring team, funding conference and workshop attendance, and participating in faculty reading and writing groups.

Part of this session will focus discussion on the challenge of weighing the ethical and practical implications of altering current recruitment and tenure practices for our discipline, our programs, and our faculty.

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"We Support New Media": But as Teaching, Research, or Just Service?

Geoffrey Sauer, Iowa State University

Technical communication programs have incorporated increasingly impressive technologies into our curricula, particularly in the past few years: emerging new media genres such as video documentation, interactive multimedia, and database-driven web design have been integrated into many programs. But in order to research in these areas, faculty require a larger technology infrastructure than required by traditional individual research articles. So is mere moral support for those faculty members who work in new media "enough"? Or does supporting research in the new media aspects of technical communication require more from our programs?

This paper contends that the way our programs tend to understand work with new media may constitute what Betrand Russell termed a "category-mistake." If we wish to support new media research in our programs, it may be necessary to rethink how we articulate new media's relationship to teaching, research and service.

Creating new media products is necessary to maintain current skills in teaching and researching for publication; one cannot maintain expertise in new media production merely by reading about hardware and software. But these "products" do not count for much within traditional tenure cases.

The teaching of new media can obviously be assessed using traditional means. Programs can develop plans for educational outcomes from courses, which can contain among them specific skills in development and/ or analysis of multimedia products. Faculty who specialize in new media production can teach these skills in courses, which can be assessed much like any teaching.

But it is obviously difficult and expensive for these instructors to keep up-to-date with the rapid changes: this year's numerous software packages for editing high-definition video (HDTV), the reinvention of Macromedia's new media suite as Adobe applications, and the more than 1,000 content management systems which compete for web designers' attention all require significant time commitments from faculty who teach and research new media production.

It would seem that researching new media could also be assessed by traditional means: published articles about issues related to new media theory and (to some extent) production can be measured by promotion and tenure committees using established guidelines. Peer-reviewed journals in technical and scientific communication will publish well-considered articles about this research, so there are certainly opportunities for success in traditional categories.

But the fact is that this research stands upon the foundation of time spent mastering software and hardware, developing new media projects which then lend themselves to the writing about the larger issues engendered in those projects. This would be reasonable if the time and/or costs of developing such projects were minimal, but often they are not.

The infrastructure needed to support new media production is more expensive and more time-consuming than much published research in English Departments. At Iowa State University, this entails an interdisciplinary institute called the Studio for New Media, and at other universities there are comparable commitments: the Laboratory for Usability Testing and Evaluation at the University of Washington-Seattle, the Open Source Development and Documentation Project at Purdue, the Multimedia Authoring Teaching & Research Facility at Clemson, the Writing in Digital Environments Center at Michigan State, the Computer Writing and Research Lab at the University of Texas-Austin, and the Interactive Media Research Laboratory at Utah State University, to name just a

few. This infrastructure isn't maintained by I.T. staff; it requires active management by faculty, involvement which takes enormous outlays of time and effort and tends to be counted as "service" by promotion and tenure review standards, despite their importance (necessity?) for scholarly work in the field of new media.

The question to ask is how our programs assess this sort of labor.

And it seems that this is the essence of the category-mistake I mention above: because our field of study is publishing, some in our field must practice online publishing as part of researching it. But because the practice seems identical to same as the object of study, new media products may appear merely as 'unreviewed publications' or 'service.' In a way, this seems unlike the labor of research in literature, rhetoric, or creative writing programs.

This practice doesn't fit neatly into the traditional teaching/research/service model. Research in new media requires reading new media theory, garnering and managing significant resources (and therefore a significant dedication of time and energy), learning/practicing new media production, then writing about it—a seemingly disproportionate amount of labor for little result.

It seems unlikely that universities would revise their promotion and tenure policies to accommodate such specific disciplinary issues, or that individual programs could each develop policies that would appropriately measure such work. The benefit CPTSC offers programs in our field lies in recommendations the organization makes to the directors of programs about "best practices" in the field. I would suggest, for discussion, that we consider in discussion at the conference how to evaluate the labor our faculty exert in managing essential infrastructure to research in new media, in ways that more adequately assess the foundational work necessary for quality research in this area.

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Recognizing the Programmatic Advantages of a Bliki Blogiverse: Using Blogs to Connect TC Faculty, Students, and Corporate Board Members

Rick Mott and Julie Dyke Ford, New Mexico Tech

Because individual writers have used web logs (blogs) to disseminate ideas, generate feedback, and establish small online communities for many years, most internet-savvy citizens associate blogs with individual personalities, with a single person, rather than with groups of people. Blogs, in effect, have become online (and thus public, unless password-protected) versions of private journals, exclusive travel diaries, personal political rants, and unique philosophical musings.

Recently, however, more and more groups of people – not just individuals – are redirecting the function and focus of blogging. Rather than using blogs as a forum to distribute individual messages and personal beliefs, these groups use blogs to maintain connections and foster communication within the group. Recognizing the advantages that blogging holds over list servs, e-mail, and synchronous discussions, these groups have structured their blogs to facilitate interaction among group members.

In our brief presentation, we will initiate a discussion about the ways that a TC program blog has the potential to create a social learning environment for faculty, students, and corporate advisory board members. At our program's annual corporate advisory board meeting in April 2005, one of our board members gave a presentation on the potential of blogs to open up lines of communication between faculty, corporate board members, and students. A TC program blog, she argued, would have the potential to create an online environment that extended beyond campus and the annual meeting. Through this medium, faculty and board members could have conversations about curriculum, students could receive feedback on portfolios and theses, students could showcase projects, faculty and board members could link to articles, and all members of the community would have a way to connect to other members.

To initiate a conversation about using blogs as programmatic tools, we will share a few of our TC program's positive – and not-so-positive – blogging experiences including:

· How, and with whom, to set up a blogging account (aka, Negotiating [or not] the technical, legal, jurisdictional, and political hurdles of setting up a blog on the university server)

· Ways to encourage participation by all group members (including, but not limited to, students, faculty, corporate advisory board members, and alumni)

· Examples of students benefiting directly or indirectly from postings they have made to the blog

· Ways the program has been – or may be – affected by using the blog to connect the disparate members of our TC community

Multimodal Contexts: How Can Our Classrooms Better Reflect Our Research and Practice?

Katherine S. Miles, Iowa State University

Two challenges that instructors face in preparing diverse student populations for academic and workplace communication have received increasing scholarly attention: understanding the role of context on communication practices and integrating multimodal communication practices into instruction. Much research about context (e.g. Dias et al 1999; Freedman & Adam 1994) focuses only on textual practices and little scholarship look at how physical/sensory characteristics of environments affect students' interpretations of context. Although recent scholarship on multimodal communication addresses visual rhetoric (Wysocki 2002; Kostelnick & Hassett 2003); hypertext and multimedia (Johnson-Eilola & Kimme Hea 2003; Wysocki 2001); and gesture, action, and sound (Kress et al 2001; Jewitt & Kress 2003; Sauer 2003), the scholarship does not include a sufficient focus on the physicality of new media contexts, particularly virtual and/or augmented reality contexts, or how physicality affects the communication process.

My position paper presentation seeks to accomplish two interrelated goals: extend current rhetorical notions of context to include the inherent synergy between individual communicators and the physicality of surrounding contexts, especially the contexts in which new media are used, and discuss the integration of multimodal communication practices in curricula—an increasingly challenging task in light of simultaneous budget cuts and technological innovations.

The research supporting my position paper presentation focuses on students' transactions within a virtual reality CAVE (Cave Automatic Virtual Environment). My study compares the processes and products of two technical communication classrooms as they complete a communication assignment: creating instructions for filming in a virtual reality CAVE. Students in both classrooms received a case study assignment that presents the abstracted virtual reality context: textual descriptions, pictures, and resources for more information. However, only one classroom was taken on a virtual reality tour. Thus my study allows an investigation into how individuals react to unfamiliar contexts, particularly contexts that represent new conceptualizations of space and reality, and whether or not access to particular contexts, especially contexts that produce physical reactions (i.e., a virtual reality CAVE), affects the communication process.

In presenting my research on context and multimodal communication practices, I hope to discuss how technical and professional communication programs can utilize and authenticate new media contexts in order to create a more fully integrated multimodal communication curriculum.

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Integrating Single Sourcing Into the Curriculum

Dan Riordan, University of Wisconsin-Stout

The presentation will propose that Technical Communication Programs insert single-sourcing components into their curriculum. The presentation will explain the need for single sourcing, briefly define it, explain its benefits to students in the courses, and explain how to use a wiki to replace a data base, if a data base is not available.

Interest in single-sourcing has reached a level at which Technical Communication programs must begin to consider introducing their students to this concept. Recent books Managing the Enterprise Content, by Anne Rockley, Single Sourcing: Building Modular Documentation by Kurt St. Amant, and a special issue of Technical Communication (August 2003) have placed both the need and the methodology into general circulation. In addition the 2004 ATTW conference keynote speaker, Dr. James Romano, President and CEO of Prisma, Inc. and a member of the Board of Advisors of the Technical Communication program at the University of Wisconsin-Stout, called for a revisioning of technical communication programs, with single sourcing and content management functioning as core concepts.

Single sourcing stresses reusability and separation of form and content, making it a unique challenge for instructors and students. This presentation will explain how one instructor, following the definitions and guidelines in Anne Rockley's "Single Sourcing and Information Design", implemented a single sourcing unit to advanced technical communication students. The separation of form and content was achieved by dividing students into groups, then pairing the groups and requiring each group to create its own content while the other group created the form for that document. The more difficult issue of reusability, usually solved by access to a data base, was solved by using a wiki.

As a result of this project, students learned to create formats independent of content, learned to write "audience neutral" content, learned to use wikis, learned to work in groups. Students expressed a good deal of satisfaction with learning this new area of technical communication and with being exposed to wikis. The program has decided to incorporate a course in content management into its next curriculum revision.

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"'OpenTechComm': The Impact of Open Source Software (OSS) Development Philosophy on Technical Communication Education"

Brian Still, Texas Tech University

A derivative of the free software movement, open source software (OSS) has been highly influential since its beginning in 1998. And that influence is not limited just to software. The guiding principle of OSS, that all ideas be open for exchange and modification, has had a profound impact beyond software. Everywhere "open" ventures are at work, from open democracy to open publishing, and even open education. MIT, for example, in recent years has made its courseware open and thus freely accessible and downloadable.

How does this growing trend in openness impact technical communication education? One clear example is the increasing adoption of OSS tools for course management. In fact, many institutions are turning to Moodle, as well as similar OSS education or content management systems, to do the job of proprietary alternatives, such as BlackBoard or Web CT.

But the proposed focus of this paper, and the discussion it hopes to stimulate, goes beyond OSS tools. Specifically, it looks at the feasibility of a community of technical communication educators at institutions across the world to collaborate, similar to how developers collaborate to support OSS projects, in the production of a constantly updated online resource that would serve as a free or open textbook for technical communications. Already, as technical communicators, we share ideas at conferences, in informal gatherings, and via listservs, as well as refereed and non-refereed publications. What if we contributed to an online resource that would function as a textbook, for example, for introductory technical writing?

I propose that the best ideas, the best examples, the best of everything, would win out in a meritocratic environment, and students, as well as faculty, would have access to the most comprehensive pedagogical resource available regarding technical communications. In this collaborative "openTechComm" effort, students would benefit because the resource would be free and it would represent a collection of best practices. Instructors would benefit because they could access materials to supplement their own teaching. They would no longer be limited by copyright, by their existing library resources, or by the one textbook that they ask their students to buy and use. Researchers of technical communication would also benefit because they would have constant access to what would be "the resource" on technical communication pedagogy.

Would technical communication program administrators benefit as well? Could the quality of the material accessible be maintained if not improved? When faced against institutions protective of their intellectual property and publishers protective of their profits, could "openTechComm" succeed? My proposed paper argues that if Linux, the OSS operating system, can continue to maintain its superior quality and increase its market share while relying on an international collection of unpaid hobbyists, then a committed group of technical communication experts can and should produce a Linux-equivalent for technical communication. I believe that argument should spark useful discussion on a subject not really considered before.

The Place for Theory in a Tech Comm Program

Keith Gibson, Auburn University

Technical communication is a field focused on practical matters: design, usability, clarity, etc. But practice is necessarily informed by theory, and we will be better practitioners if we are familiar with the theoretical foundations of technical and scientific communication. Stuart Selber and Johndan Johnson-Eilola have recently published a collection of the articles they believe make up these theoretical foundations, but, as in the debates over "canonical" literature, a book titled `Central Works in Technical Communication` is certain to start more discussions than it ends. For instance, how large a role should rhetorical theory play in technical communication courses? Is there a place for ancient rhetorics, or is our field necessarily reliant on modern rhetorical theory? What is the place for scientific expertise in a tech comm program? Should we require our students to take some general science courses to help them communicate with subject-matter experts? In this position paper, I will discuss the recent graduate course I taught on Tech Comm Theory, describing the content this interdisciplinary group of students found most helpful and what we thought may have been missing.

The content of a theory course, though, is only part of the discussion. An important part of designing a theory course is deciding how it fits in the program. Should students be required to take a theory course? Should this course come early in the program, as a prerequisite for the more skills-based courses, or should it appear at the end of the program, when students will have more experience with which to confront the theory? How, if at all, should theory interact with the skills students learn: should each course have a theory component, or should there be a semester (or more) devoted solely to the study of these theories? I will briefly describe how theory fits into the MTPC program at Auburn University, and I hope to stimulate discussion from faculty and students regarding BA/BS programs, PhD programs, and Minor/Emphasis programs. Theory is clearly not the only part of a technical communication program, but it is an important part of one; to make it an effective part for us and our students, we need to think and speak specifically about it.

Ensemble Teaching for Ensemble Learning: A Paradigm from/ for Technical Communication in an Engineering Setting"

Margaret Hundleby, Alan Chong, Amy Franklin, Robert Irish, Katherine Tiede, and Deborah Tihanyi; University of Toronto

Engineering work is often described as "team" – where individuals each do a discrete portion, and someone draws the pieces together – or "collaboration" – where a group works through issues together by ongoing consensus. We propose a third model, "the ensemble." By analogy with something like jazz or situation comedy, the ensemble is a group of players who collaborate – they play together – but each works within a particular sphere or type: just as the saxophone cannot replace the violin, the rhetorician does not replace the linguist.

We work in an engineering communication program within an engineering school at a large public university. In numerous courses, we work as an ensemble – a non-hierarchical group of instructors who work together to create a unique learning environment for our students.

The major claim we make in this position paper is that by working as an ensemble we can teach better, and students can learn more, because we have been able to multiply the advantages of having theoretical and practical outlooks that are both broadly and deeply conceived. The approach is one we call "ensemble teaching for ensemble learning" wherein an ensemble of instructors from widely varying academic and industry backgrounds (Rhetoric, Linguistics, Theatre Arts, Literary Theory, Sociology, Cognitive Science, Evaluation and Measurement, and Education) collaboratively teaches students who themselves are learning/working in ensembles/teams on projects.

In working out the idea of working in ensemble, we have identified three interrelated issues: roles, voice, and ownership. Certain roles are defined by university hierarchies – course coordinator, teaching assistant etc. – however, we can begin to work against such dominant ideas by rethinking how we occupy such roles – who is the best soloist in any given situation? –

and what kinds of improvising we enable within them.

In terms of voice, any ensemble has stars and supporting players; we aim to interrogate what group dynamic enables/prevents voices from being heard/ articulated. By becoming aware of such dynamic, we can give voice to supporting players, which at once improves their performance and enriches the performance of the whole.

Obviously ownership is tied to voice, so who "owns" teaching methodologies or materials done collaboratively? At what point is an idea no longer "mine"? We are keenly interested in how to shape answers to these questions because as the ensemble continues to work together the thinking becomes interrelated, but even as it does so individuals' investment in the ideas deepens. This last has been the strongest benefit of the ensemble's working together: we have a collective ownership of ideas that surpasses the greatest possible work of any one instructor, however diligent.

Ultimately, this theory of building a teaching ensemble to foster ensemble learning enables us to:

· Examine how our own learning impacts on how we teach;
· Identify inhibitors to learning and teaching in this or other group contexts; and
· Situate our approach, so that in addition to knowledge gained from varying experiences is added rich theoretical underpinning adapted to the particular setting.

Negotiate concepts of ownership among ourselves and our students, in order to foster the individual voice as a contributor to group accomplishments.

Talking About the Text: Bringing the Culture of Response Into the Workplace

Katrine Dahl, University of Copenhagen

The Section of Philosophy, Education, and Rhetoric at the University of Copenhagen, Denmark, offers a full undergraduate/graduate program in rhetoric. At the rhetoric program, a strong culture of response pervades. Giving and receiving response on texts and presentations is the rule, not the exception. Once employed in the industry in a variety of positions, rhetoric graduates report back to the department that the single most useful skill they learned while studying rhetoric is the ability to give colleagues accurate, kind, and constructive response on both written and oral communication efforts. Their employers agree. The readiness to receive response is an additional characteristic of our graduates. Writing groups and working with peer response are teaching modes described in the literature on composition in the classroom, perhaps most compellingly within creative writing as advocated by Murray (1968) and Elbow (1974). The usefulness of peer response in collaborative learning is described by Bruffee (1984) and Fulwiler (1987) among others. From this body of thought stems the inspiration to establish writing groups in composition classes at the rhetoric program. Course designs also place the emphasis on creative writing. What happens, however, is that the culture of response finds a strong resonance among students, as well as faculty, and permeates the entire rhetoric program; students form reading and writing groups independent of curricular requirements and voluntarily and enthusiastically engage in giving and receiving response on expository writing, papers, and presentations. In fact, they embrace the culture of response so gladly that they help each other to produce texts outside of their academic life, for example job applications and CVs. In the five years that the full program takes, students have become keen and able communication reviewers with a strong sense of decency and respect for the uniqueness of each communication effort which they provide feedback on. It has become clear to us that this very quality is what distinguishes our graduates from their competitors in the recruitment race. I believe that we should shift the programmatic focus on response and writing groups from creative writing to a more workplace oriented one. For two reasons: 1) As outlined above there is clearly a need for competent constructive criticism of communication efforts in the workplace. Our graduates must be even better at providing response to texts produced in a professional setting. 2) Research on professional writing demonstrates that the majority of writing in the workplace is done collaboratively in one sense or another (Ede and Lunsford 1990; Lay and Karis (eds.) 1991; and many more). For collaboration to succeed, the ability to talk about the text in an accurate and constructive manner is fundamental; the ability to give and receive response. Looking ahead, more research is needed on response in the workplace and how to teach the necessary skills.

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Directed Research Groups at the University of Washington

David K. Farkas, University of Washington

Since 2001, faculty in the Department of Technical Communication at the University of Washington have been conducting Directed Research Groups (DRGs) (explained in detail by Turns and Ramey). This is the course description:

> Students, working in teams under the supervision of individual faculty members, review relevant literature, pose research questions, design and conduct studies, and present the results in papers prepared either for submission to a professional journal or for presentation at a professional conference. 1-3 credits. Credit/No Credit (2005).

DRGs have quickly become an important part of our curriculum. Ten DRGs are scheduled for fall '05, and DRGs often continue from one quarter to the next. Undergraduate and masters students receive elective credits; Ph.D. students are required to take 12 DRG credits. There is usually one meeting per week, though further communication takes place through digital means and informal meetings.

Some typical subject areas for DRGs are the effects of graphic variables on comprehension, memory, and performance (Tom Williams); the socio-economic impact of information and communication technologies in developing countries (Beth Kolko); and new directions in software user assistance (Dave Farkas). In many instances, DRGs are closely tied to a faculty member's ongoing research interests, and some of the students in a DRG may be writing a masters thesis or doctoral dissertation related to the DRG topic.

Key goals of DRGs are to increase students' understanding of the research process and specific research areas and methods, to improve students' ability to evaluate published research, and—especially for graduate students—to build a record of publications and conference presentations. Publication credit depends on the nature of each individual's contributions.

We feel that DRGs have been successful in fulfilling these and related goals. Among the problems are the complexity of coordinating the efforts of multiple individuals, the possibility that a student may slack off, and the tendency for students to concentrate their energy on only one aspect of the research effort.

Turns and Ramey take note of the considerable flexibility within the DRG model. DRGs reflect the many different kinds of research undertaken by TC faculty, and some DRGs emphasize design over research. In some instances, individual students or pairs of students pursue separate, but closely related projects. It is also possible for a DRG to incorporate a syllabus of readings and discussion topics. The DRG model, then, is inherently flexible and can be adapted in many ways to meet the needs of very different technical communication programs.

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Directions, Directives, and Our Programs: How Do We Match Up?

Jennifer Bowie, Georgia State University

Many technical communicators have argued for increasing the quality and quantity of our research. Sullivan and Spilka argue that we need a strong body of research "to be considered a profession" (1992), and similarly MacNelay suggests "the development of research is essential to growth as a profession and discipline" (1992). Pinelli and Barclay propose that, due to the "increasing significance" of research in technical communication, we need regular reviews of our research to consider where we are and where we need to be going. Blakeslee and Spilka suggest that the many attempts to assess the state of research in technical communication emphasize the desire for a "common understanding of the questions, methods, and direction that are needed for our research" (1992). Many of these authors and researchers point out the directions we should to be moving both in our research and as a field to develop our research. Some scholars have even examined what we are publishing for research; however, there seems to be limited connections, or at least limited discussions of the connections, between our technical communications programs and these directions and directives for research.

In this position paper presentation, I examine the argument for increased quality and quantity of research and look at where the researchers are formed, our programs. I analyze the programs of the 18 schools with Ph.D. programs in technical communication, according to the ATTW website, examining how these programs handle research. My analysis looks not just at the Ph.D. programs, but also at the relevant Master's and Bachelor's degrees to understand how research is handled through the various levels of education. The research training at the Bachelor's and Master's levels is particularly important as this is where many of our practitioners come from. While analyzing the programs at these schools, I will examine:

· Research requirements for each degree level;
· Types of courses required;
· Types of courses available; and
· The multidisciplinarity of the requirements and courses.

I will compare my findings from these 18 programs to the directions and directives offered by our scholars and researchers, such as the suggested types of research. I will present what we are really teaching and explore how these courses and methods fit with what our discipline is calling for. I will present, for discussion:

· The areas in which our research programs match what our researchers and scholars are calling for;
· The areas in which our research programs do not match what our researchers and scholars are calling for;
· New research directions for our programs; and
· Ways we can make our programs more responsive to the needs of the field.

In presenting these areas, I hope we can discuss what directions and directives our programs should follow; and also explore how the research in our programs matches up to what we need as researchers, scholars, teachers, and program administrators, and to what we need as a discipline and profession.

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Research on the Ethical Responsibilities of Disciplines: Implications for Technical Communication Programs

Kenneth T. Rainey, Southern Polytechnic

This presentation will examine the research about the ethical responsibilities of disciplines and apply that research to technical communication, with particular focus on how those ethical responsibilities (should) influence programmatic decisions.

This discussion is a continuation of what one reviewer called "my high horse without legs"—that is certification for technical communicators. In an article in Technical Communication Quarterly [13(2), 211-234], Turner and I laid out the argument for certification and proposed twelve steps that must be accomplished in order to realize certification, which we see as an essential element in the professionalization of the discipline. We also proposed possible approaches to realization of each step. I re-emphasized that process in a presentation to the IEEE/PCS in 2004 in Minneapolis.

Earlier this year at the IEEE/PCS Conference in Limerick, Ireland, I discussed the first of the twelve steps—codification of the bodies of knowledge in an encyclopedia of technical communication. Here, I will discuss the second of the twelve steps:

Step: Identify professional and ethical responsibilities.

Approach: Establish a representative task force of major technical communication professional organizations to identify and describe ethical responsibilities for the profession. Documents such as the Society for Technical Communication Guidelines for Technical Communicators provide a beginning point; but these focus on individuals. We need a document focusing on the profession.

In developing this topic, I will examine the guidelines of all of the major professional organizations about professional responsibilities and assess the implications of these statements for the discipline as a whole. We will need to understand the distinction between discipline and profession. Thus, I will describe what makes a discipline and what makes a profession.

Toulmin defined these two concepts more than thirty years ago. E.O. Smith used Toulmin's work in her study of the forums, profession, and discipline of technical communication. To use Smith's words, based on Toulmin, a discipline is "a communal tradition of procedures and techniques for dealing with theoretical or practical problems." A profession is "the organized set of institutions, roles, and men [and women] whose business it is to apply or improve those procedures and techniques." "A discipline is the set of collectively agreed upon concepts, or ideals, for a given time and context" (the content of an encyclopedia).

Discipline refers to the concepts and procedures used by professionals to solve problems (as detailed, for example, in an encyclopedia). How, then, does discipline differ from profession? "Profession represents the authority and judgment of the discipline." "Profession refers to the forums for discussing the concepts, and professionals are the individuals who create and use the knowledge for problem solving." A discipline is built upon and produces a "body of knowledge."

I will propose a representative task force of the major stakeholders in the discipline to identify and describe ethical responsibilities for the profession. Also, I will propose some tentative statements/guidelines of the ethical responsibilities of the profession. My argument will be that professionalization requires certification, and that certification is ethically right, indeed, that a discipline or profession cannot be such unless it has an established, accepted, and legitimate procedure for entry, advancement, and exit. Every other established profession has accepted this ethical responsibility.

Professional technical communication societies would
fulfill their ethical obligations to the profession—and
to their clients—by beginning the movement towards
an objective, fair, and meaningful system of validation
of those working in the profession.

Investigating Professional Development of Program Administrators

W. J. Williamson, Saginaw Valley State University

This paper presents the first of two stages of a research project that investigates the professional preparation of program administrators in technical communication and related fields.

Forty distinct faculty positions were posted on the CPTSC website during the past academic year. Seventy percent (28 of 40) of those openings included program administration among the responsibilities listed in the descriptions. These responsibilities represent a broad range of expectations, from course development to program development, from student advising to program assessment. Despite the significant demand for administrators in our discipline, technical communication programs seem to have no systematic approach to fostering effective professional development for meeting these often daunting duties. I have begun a project aimed at investigating the philosophical roots and daily realities of administrative theory and practice in technical communication and related fields. This paper will report on the first stage of this research: a series of interviews with current program administrators from around the country. I am particularly interested in tracing three influences on their work: (1) their intellectual debts to other scholars and disciplines; (2) their formal, programmatic preparation to serve in administrative roles; and (3) the significance of professional/scholarly bodies such as the CPTSC to their ongoing work.

Economics, Technology, and the Management of Technical Communication

Stevens Amidon and Stuart Blythe, Indiana University-Purdue University

Members of CPTSC routinely cite the importance of teaching management skills to our students. This range can extend from the short-term focus of project management to the more long-term focus of organizational management (see Anderson and Dicks). Furthermore, these skills may be taught throughout the curriculum or increasingly in courses devoted to management. This raises the issue, what should be taught in a management course? Any answer should be based in part on what counts for acceptable management practices, and that depends on numerous factors, especially economic and technological realities. Consider just three things: First, as Faber noted in his 2001 CPTSC presentation, management trends come and go (one could even call them fads). Second, continuing trends toward globalization, with the concomitant phenomenon of outsourcing, make the ability to manage projects and teams more crucial. Third, changes in digital technologies have, in part, fueled changes in corporate structure, which presents two challenges to technical communicators. These changes may make older management principles obsolete and they may present new opportunities for technical communicators (see for example Johnson-Eilola and Wick).

In an effort to examine current management practices that relate to technical communication, we are interviewing managers in the field about the competencies that they think they themselves need. These managers have varying levels of responsibility, from leading technical communication projects to managing entire departments. They also work within a range of organizations, including defense contractors, logistics consultants and service providers, creators of billing systems for wireline and wireless telephone companies, and developers of customer reward and billing systems for major retail chains. The point of this CPTSC-funded research is to explore the managerial demands that practitioners face and to consider what that means for the teaching of management skills, whether in a single course or as a concept that crosses course boundaries.

Preliminary interviews have been open-ended to allow practitioner concerns to emerge through thick narrative. The records of each interview will eventually be coded. In the meantime, some preliminary findings can be detailed. First, all practitioners we interviewed expressed concern over the marginalization of technical writing as a profession. However, practitioners disagree about the causes of this marginalization and are responding with a variety of management strategies and tactics. At the strategic level, some managers are responding by flattening their writing organizations and assigning their writers to work relatively independently as writing experts within multi-disciplinary project teams. Yet others, working within a more traditional hierarchy, are building disciplinary ethos by attempting to piggyback the need for better documentation on existing corporate quality improvement efforts. Still others are attempting to redefine the nature of their work and the value that work adds to the organization by characterizing their efforts as "information design" or "communications consulting." Second, a significant number of interviewees have stressed to us that initial planning documents such as project plans, letters of understanding, and "e-mail contracts" are crucial genres in the workplace—genres that should be taught in technical communication programs. Third, developments in technology (such as NetMeeting and Microsoft Project for the Web) are changing the way some managers understand organizational structure and negotiate their ways through it.

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Stevens Amidon and Stuart Blythe were an invited presentation at the 2005 Conference. They were the winners of the CPTSC research award

Tech or Research in Programs: Where's the Line?

Libby Allison and Miriam Williams, Texas State University; Meloni McMichael, Texas Tech University

In January 1993, representatives from universities with technical communication programs, large high-tech companies, and the Society of Technical Communication (STC) Board met to "define broad curricular concerns" about technical communication education (Geonetta 256). At that meeting, according to Hayhoe, Kunz, Southard, and Stohrer, "The ideal curriculum in information product development [would] include writing, transferable lifelong learning skills, software tools, communication theory, the history and impact of technology on culture and human lives, and internships or practica which sharpen students' focus on tasks they will perform in industry" (qtd. in Geonetta 256).[1] The kind of curriculum envisioned here incorporates a strong humanities perspective with technology and practical experience. Some ten years later, a survey by Allen and Benninghoff found that the 42 schools surveyed, from a wide range of locations and sizes, had indeed met the challenge of "maintaining a humanities perspective while also changing to meet new demands from science and technology" (2004). But as Allen and Benninghoff note themselves, "Our programs are attempting to build on constantly shifting sands of new expectations for design, project management, and information management, along with the technologies they involve" (2004). In addition, there has been a surge in the growth of undergraduate and graduate programs (Cook, Thralls, and Zachrey; 2003; Harner and Rich, 2005; Latterell, 2003), and the vast majority of faculty, teaching in many kinds of universities and colleges, continue to struggle with if and how to include technology and software tools into what are often humanities-based programs. Moreover, the issue becomes increasingly complicated when considering how technology and software might influence or be influenced by research efforts whether the efforts are for academic and/or industry purposes, how to incorporate software into programmatic research goals, and if and what to teach students about research and technology. The issue also came to the forefront when the STC Board announced in January 2003 that research would be one of the organization's highest priorities (Society for Technical Communication).

It is our panel's contention that the boundaries between technology and research for technical communicators and technical communication students have become so obscure it is meaningless to try to determine where they start and end. We believe that there should be meaningful and educational dialogue about the relationship of research with technology for faculty involved with program development. We take the next step beyond Gurak and Duin's position that the discussion about "the impact of the Internet and digital technologies on teaching and research in technical communication . . . move away from the double-edged sword metaphor: evangelizing about the power of the Internet and digital technologies on the one hand or criticizing and dismissing them on the other" (2004) to the position that we must now accept that technology and research are indeed inextricably linked. But we will pose questions to our audience of if, how, and should technical communication programs help students deal with the wide range and variety of technology "out there" for research endeavors. Our panel will present three examples of research that demonstrate just how close the two have become.

In the first case, Miriam Williams, a faculty member in the graduate Technical Communication program at Texas State, will describe how her research on public policy writing and multicultural audiences now must include e-rule making and how these technological changes have influenced her research. These kinds of technologies are becoming so commonplace in the development of public policies that technical communication programs must find ways to teach the genre, as well as the technologies used to invent it.

In the second case, Libby Allison, Director of the graduate program in Technical Communication at Texas State, who submitted a proposal to the National Science Foundation (NSF) with a graduate student as

part of an interdisciplinary doctoral course, will discuss software now used by federal agencies for grant submissions and how that software constructs content. In addition to setting programmatic goals and research agendas that include grant-seeking by graduate students, programs must couple instruction on writing persuasive proposals with training on negotiating the technologies designed to frame grant submissions.

In the third case, Melonie McMichael, a doctoral student at Texas Tech, will discuss how her research interests involve listservs, which are becoming critical to track issues and opinions for many research activities, particularly in the field of technical communication. McMichael will show examples in which information from listservs are invaluable to research and as such need to be included in program curriculum development. Her presentation comes from research about online communities, such as TECHWR-L, CPSTC, and ATTW listservs.

Notes

1. Geonetta notes that this is from a 1993 STC unpublished manuscript, "Growing to Fit the Future: An STC White Paper on Academic Programs in Technical Communication."

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Guark, L. & Hill Durin, A. (2004). The impact of the internet and digital technologies on

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Latterell, C. (2003). Technical and professional communication programs and the small college setting: Opportunities and challenges. `Journal of Technical Writing and Comunication`, `33.4`, 319-335.

National Science Foundation FastLane. From <https://www.fastlane.nsf.gov/ fastlane.jsp.>

Society for Technical Communication. From <http://www.stc.org>.

Thursday, October 20
6:00 Registration Courtyard, Foyer, Lecture Hall 001
6:00 Opening Reception Courtyard, Foyer, Lecture Hall 001
7:00 Keynote Address Lecture Hall 001

Friday, October 21
• Breakfast on your own—Hawthorn Suites complimentary breakfast
• Coffee and email access available in Room 353 during concurrent sessions
• Posters on passive display in the Atrium during concurrent sessions
• Book exhibits on display in the Lecture Hall foyer for a half day in the morning, moving to 353 after 10 am
• New CPTSC Website will preview in Room 353

8:00 Coffee & Registration Courtyard, Foyer, Lecture Hall 001
8:30 Plenary Session Lecture Hall 001
10:00 Concurrent Session 1 Rooms 303, 352, 357, 358
11:00 Break 3rd Floor
11:15 Concurrent Session 2 Rooms 303, 352, 357, 358
12:15 Lunch on the grounds English/Philosophy Courtyard
2:15 Concurrent Session 3 Rooms 303, 352, 357, 358
3:15 Break TCR Pod, Room 363
3:30 Concurrent Session 4 Rooms 303, 352, 357, posters in Atrium
4:30 Administrators' Roundtable Room 201
6:30 Reception Merket Alumni Center
7:00 Annual Banquet Merket Alumni Center
9:00 Entertainment (live music) Merket Alumni Center

Saturday, October 22
• Breakfast on your own—Hawthorn Suites complimentary breakfast

8:00 Annual Business Meeting Room 201
Beverages in 2nd Floor Lounge
12:00 Excursions

Thursday, October 20

Keynote Address 7:00 pm, Lecture Hall 001
Keynote Speaker: Rachel Spilka
Technical Communication Research: A Call for Action

Friday, October 21
Plenary Session 8:30 am, Lecture Hall 001

Ann M. Blakeslee, Eastern Michigan University
The State of Research in Technical Communication: Perspectives from CPTSC and ATTW Research Forums

Brenton Faber, Clarkson University, and Michael J. Salvo, Purdue University
Nanoscience & the Symbolic Capital of Research

Kelli Cargile Cook, Utah State University
Common Threads: What Programmatic Research Reveals about Technical and Scientific Communication

Concurrent Session 1 10:00 am
1A. Room 303
Globalization, Pedagogy, and Research
Moderator: Natalia Matveeva, Texas Tech University

Proposal for a Summer School in Technical Communication and Culture
Yvonne Cleary, University of Limerick

Programmatic Responses to Offshoring: Future Directions
Clinton R. Lanier, New Mexico State University

Capitalizing on 'A Call for Leadership' to Strengthen Programs in Scientific & Technical Communication
Russel Hirst, University of Tennessee

Globalizing Distance Education: Re-thinking the Nature of Online Programs
Kirk St. Amant, Texas Tech University

1B. Room 352
Program Models for Supporting Faculty and Student Research
Moderator: Eunice Johnston, North Dakota State University

Faculty/Student Collaboration for Funding and Research
Dave Yeats, Texas Tech University

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Developing the Professor/Student Relationship Through Co-Authorship
Miles Kimball and Robert Waller, Texas Tech University

Recognizing Student Research
Nancy Allen, Eastern Michigan University

Passing the First Ph.D. Milestone: Student Research at the University of Washington Reflects Global Interests
Kathleen Gygi, University of Washington

The Capstone Course in Technical Communication as a Potential Site for Undergraduate Research
Russell Willerton, Boise State University

1C. Room 357
Research Risks and Research on Risk Communication
Moderator: Kathryn Northcut, University of Missouri-Rolla

Researchers' Role in Creating Public Awareness
Dale Sullivan, North Dakota State University

Calculating Risk: Communication and Perception of Risk
Rebecca E. Burnett, Iowa State University

Birth of a Research Center: Connections Between Hazards Research and Risk Communication
Jamie Brown Kruse, East Carolina University

Birth of a Research Center II: Leveraging Multi-Disciplinarity
Donna J. Kain, East Carolina University

1D. Room 358
Program Revision and Assessment I
Moderator: Elizabeth A. Monske, Louisiana Tech

Creating a Framework to Build On: Revising the Undergraduate Program in a Department of English
Michelle F. Eble, East Carolina University

Research and External Funding Can Change an MS Curriculum
Ann Jennings, University of Houston-Downtown

Growing Pains: Implementing a New Doctoral Program
Janice Tovey, East Carolina University

E-learning: Research and Curriculum/Program Development
Sherry Southard, East Carolina University

BREAK 11:00-11:15

Concurrent Session 2 11:15
2A. Room 303
Identity, Research Funding, and Political Economy
Moderator: Sherry Burgus Little, San Diego State University

Research Questions, Identity, and Survival
Carolyn Rude, Virginia Tech

Morphing the Image of the English Scholars in Technical and Professional Communication Programs
Kelli Cargile Cook, Utah State University

Connecting Programs and Research Through Political Economy Analysis
Ryan M. Moeller, Utah State University

Designing Educational Spaces for Students and Colleagues
Cheryl E. Ball, Utah State University

Interdisciplinary Curriculum Development as a Way to Promote Our Field Within Our Institutions
Joanna Castner Post, University of Tampa

2B. Room 352
Interdisciplinary/Inter-program Research
Moderator: Glenn Broadhead, Illinois Institute of Technology

Incorporating and Compensating: Some Challenges of Interdisciplinary Research on Programs Inside and Outside of Technical Communication
Ann Brady; Robert R. Johnson; Thomas Vosecky; Charles Wallace, Michigan Tech

Unexpected Outcomes of Program Collaboration: Opportunities for Research
Michael J. Salvo and Tammy S. Conard-Salvo, Purdue University

2C. Room 357
Program Revision and Assessment II
Moderator: Amber Lancaster, Texas Tech University

A Research-Based Model for Negotiating Workplace Standards in a Client-Based Program
Summer Smith Taylor, Clemson University

Technology Transforming Assessment: How E-Portfolios May Change Our Processes and Our Data
Karen Kuralt, University of Arkansas at Little Rock

Technical Communication Programs: The Need and Struggle for Continual Revision
Elizabeth Pass, James Madison University

Preparing for Innovation in Teaching Online Technical Communication Courses: An Evaluation and Planning Study
Wanda L. Worley, Purdue School of Engineering & Technology

2D. Room 358
Theory, Pedagogy, and Program Design I
Moderator: Timothy D. Giles, Georgia Southern University

Locating the Service Course: Discerning Disciplinary Patterns From Local Differences in Curricular Placement
Michael Knievel, University of Wyoming

"So What if Science is Rhetorical?" Assessing the Goals of a Rhetoric of Science Teaching and Research Program
Ken Baake, Texas Tech University

Pondering Convergence: Research and Program Opportunities in Tech Comm Turn in Introductory Writing
Steven T. Benninghoff, Eastern Michigan University

Constructing a Theory/Pedagogy of Professionalism
Marcea K. Seible, Illinois State University

LUNCH 12:15-2:15
English/Philosophy Courtyard

Concurrent Session 3 2:15

3A. Room 303
Bringing Practitioners into Programs
Moderator: George Hayhoe, East Carolina University

The STC Academic Community: Bringing Practitioners Into Programs
Thomas Barker, Texas Tech University

Connecting Programs and Practitioners Through Research
David Dayton, Towson University

The STC Academic Community: Encouraging Connections With Students and Alumni
Elizabeth O. (Betsy) Smith, Auburn University

Bringing Consulting Work Into a Certificate Program
Tracy Bridgeford, University of Nebraska at Omaha

3B. Room 352
Challenges and Solutions for Program Administrators
Moderator: William Klein, University of Missouri-St. Louis

Musical Chairs with More Chairs than Players: Challenges and Solutions for Hiring Professional & Technical Communication Specialists at Teaching-focused Universities
Kaye Adkins, Missouri Western State College; Molly Johnson, University of Houston—Downtown; Bruce Maylath, University of Wisconsin—Stout

3C. Room 357
New Media Technology I
Moderator: William Karis, Clarkson University

'We Support New Media': But As Teaching, Research, or Just Service?
Geoffrey Sauer, Iowa State University

Recognizing the Programmatic Advantages of a Bliki Blogiverse: Using Blogs to Connect TC Faculty, Students, and Corporate Board Members
Rick Mott and Julie Dyke Ford, New Mexico Tech

Multimodal Contexts: How Can Our Classrooms Better Reflect Our Research and Practice?
Katherine S. Miles, Iowa State University

Integrating Single Sourcing into the Curriculum
Dan Riordan, University of Wisconsin—Stout

'OpenTechComm': The Impact of Open Source Software (OSS) Development Philosophy on Technical Communication Education
Brian Still, Texas Tech University

3D. Room 358
Theory, Pedagogy, and Program Design II
Moderator: Amy Koerber, Texas Tech University

The Place for Theory in a Tech Comm Program
Keith Gibson, Auburn University

Ensemble Teaching for Ensemble Learning: A Paradigm from/for Technical Communication in an Engineering Setting
Margaret Hundleby, Alan Chong, Amy Franklin, Robert Irish, Katherine Tiede, and Deborah Tihanyi; University of Toronto

Hybrid Instruction: Just a Matter of Cost and Convenience?
Kendall Kelly, Texas State University San Marcos

Talking About the Text: Bringing the Culture of Response Into the Workplace
Katrine Dahl, University of Copenhagen
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BREAK 3:15-3:30

Concurrent Session 4 3:30
4A. Room 303
Programmatic Roles in Research, Professional Development, and Ethical Responsibility
Moderator: Paul M. Dombrowski, University of Central Florida

Directed Research Groups at the University of Washington
David K. Farkas, University of Washington

Directions, Directives, and Our Programs: How Do We Match Up?
Jennifer Bowie, Georgia State University

Research on Ethical Responsibilities of Disciplines: Implications for Technical Communication Programs
Kenneth T. Rainey, Southern Polytechnic

Investigating Professional Development of Program Administrators
W. J. Williamson, Saginaw Valley State University

4B. Room 352
New Media Technology II
Moderator: Angela Eaton, Texas Tech University

Economics, Technology, and the Management of Technical Communication
Stevens Amidon and Stuart Blythe, Indiana University-Purdue University
*Invited presentation; winner of CPTSC research award

Tech or Research in Programs: Where's the Line?
Libby Allison, Texas State University; Miriam Williams, Texas State University; Meloni McMichael, Texas Tech University

4C. Room 357
Facilitating Research on Global Partnerships in Technical Communication Programs
Moderator: Jeff Grabill, Michigan State University

Facilitating Research on Global Partnerships in Technical Communication Programs
Ann Hill Duin, University of Minnesota, and invited panelists: Debby Andrews, David Farkas, TyAnna Herrington, Ken Rainey, and Bruce Maylath

4D. 2nd Floor Foyer
Active Poster Presentations
Moderator: Rebecca Burnett, Iowa State University

Influencing Organizational Culture in a New Master's Program
Molly Johnson and Joe Strange, University of Houston-Downtown

Textual Coherence Indicators in Freshman Composition Writing: A
Coh-Metrix Analysis
Michael J. Albers and Danielle S. McNamara, University of Memphis

Program Assessment in a Small Program
Heather McGovern, Richard Stockton College of New Jersey

Testifying in the Anti-Terror Age
Catherine F. Smith, East Carolina University

Connecting Research With Curriculum Planning
Katherine Tiede and Alan Chong, University of Toronto

MBTI as Praxis: Connecting Program Tenets to Collaborative Knowledge-Making
Daphne Clements Ervin and Mialisa A. Hubbard, Texas Tech University

Variations on the Service Course: What Professional Writing Can Learn From (and
Teach to) Composition and In-House Technical Writing Courses
Aimee Kendall Roundtree, University of Houston-Downtown

Connecting Undergraduate Research and Curriculum Development in Technical
Writing Programs
Justin MacKinnon, Bill Karis, and Brenton Faber; Clarkson University

Applying Research on Bioscientists' Learning to Teaching Bioscientists'
Communication
Mary Purugganan, Rice University, and Julie Zeleznik, University of Wisconsin-Stout

1. Meeting called to order at 9:00 a.m. with 48 members in attendance.
2. Minutes from 2004 business meeting. The minutes were distributed and reviewed. Tracy Bridgeford made the motion to approve the minutes; Molly Johnson seconded the motion. The motion passed unanimously.
3. Standing reports
   a. Treasurer's Report—Jeff Grabill for Karen Schnakenberg.
      Report Jeff reported a balance on-hand of $24,000.
   b. Secretary's Report—Kelli Cargile Cook
         No report except for minutes (See agenda item #2).
   c. Publications- Jeff Grabill reporting for Jim Dubinsky
         Report. Jeff reported that the 2005 newsletter had been mailed, and the 2003 and 2004 proceedings were in press.
   d. Program reviews—Kirk St. Amant
         Report: Kirk reported that the program review committee had developed a five-point plan for updating the program review process:
      1. Item one: In the short term, the committee will identify reviewers geographically
      2. Item two: In the short term, the committee will develop a list of reviewed programs and develop guidelines
      3. Item three: In the long term, the committee will revise the self-study process by conducting a literature review and gathering pdf copies of review documents
      4. Item four: In the long term, the committee will review other organization's guidelines for program review and make recommendations for change
      5. Item five: In the long term, the committee will propose a special journal issue to provide an overview and update of the revised program review process. The proposal will be submitted by Kirk St. Amant and Cindy Nahrwold.
         Discussion: A discussion followed about how the special issue would be edited. Kirk indicated that the issue would be edited by himself and Cindy, not by other members of CPTSC. Linda Driskill recommended that the revised program review guidelines include the connection between institutional accreditation review and the CPTSC program review. Dan Riordan and Dale Sullivan questioned whether all reviewers would be academic, and they suggested that institutions be allowed to choose whether they wanted only academic reviewers or academic and industry reviewers. Tommy Barker asked how many reviewers would be provided. Kirk indicated that the plan was for reviews to be conducted by 2-3 reviewers.
   e. Website—Jeff Grabill
      Report: Jeff reported that Tracy Bridgeford would be assuming the role of Chief Technology Officer. She will take over the website and oversee its development and maintenance.
   f. Distinguished Service Award—Bruce Maylath
         Report. Katherine Staples was awarded the DSA in 2005. Testimonials will be collected at the website.

g. CPTSC Research Grants—Kelli Cargile Cook
    Report. Kelli recognized this year's research grant recipients and announced that the CFP for the next round of funding would be distributed soon.
    Action. Kelli will send out CFP in the fall to announce the grant opportunity and solicit proposals.
4. Other Reports
    a. STC—Sandi Harner
        Report. Sandi requested that CPTSC members nominate students for the STC student honor societies—Alpha Sigma for two-year colleges and Sigma Tau Chi for four-year and graduate colleges. She also requested that members nominate faculty members for the Jay R. Gould award. Nominees must be members of STC for ten or more years and must have taught for fifteen or more years. She announced a student reception at the STC conference and announced that the Phoenix Chapter would be holding the first annual college international competition. Finally, she noted that the STC board had approved three proposals for the research grant competition.
    b. CPTSC/ATTW Roundtable—Bruce Maylath for Doreen Starke-Meyerring
        Report: Bruce announced that the next opportunity to participate in the Roundtable would be Forum 2007 in Amsterdam.
        Action: The CPTSC executive committee will need to plan ahead for the one-day roundtable event.
    c. ATTW—Bill Karis
        Report Bill described the March 2006 conference in Chicago and invited CPTSC members to come.
5. Old Business
    a. Committee for Diversity—Jeff Grabill
        Report Jeff discussed the executive committee's commitment to following up on the topic, which was introduced at the Clarkson business meeting in 2003. He announced plans to extend diversity in the following ways:
        ·   Recruit members at 4Cs
        ·   Emphasize diversity in the research grant CFP.
        ·   Track diversity and minority students in the programs.
        Other ideas were discussed for increasing diversity, including summer camps for high school students, connecting technical communication students to centers for minorities, and continuing to support diversity through graduate student recruitment at 4Cs.
        Action: Jerry Savage will act as the contact person for additional ideas.
6. New Business
    a. CPTSC website and its functions—Jeff Grabill
        Report. Jeff reported that the new website was online, thanks to the work of Geoff Sauer. He described the workflow document that he developed that would direct the way website content is developed and deployed. He noted that executive committee members will be adding content and reminded members that Tracy Bridgeford will now be in charge of overseeing all development and maintenance.
        Action. Bruce Maylath suggested that the executive committee continue to research possibilities of using website for elections.
    b. Joint CPTSC/ATTW statement on hiring—Bruce Maylath

Report. Bruce and Jeff discussed the statement and provided background on its development. The document was drafted to explain how hiring in our field is different from other areas of English Studies. They discussed the problems that arise from the MLA statement and presented the document draft to the members for discussion.

Discussion. Members expressed concern that CPTSC not replace the MLA statement until CPTSC and ATTW had an approved statement of their own. They noted the protections that the MLA statement provides for graduate students on the market for the first time. Other members noted that the MLA statement was most problematic because of the calendar and deadlines it stipulates.

Action. Nancy Coppola moved that the membership table the current discussion and move it to CPTSC listserv before going forward with the statement. Ann Jennings seconded the motion. Motion passed.

c. Policy on E-mail Addresses—Jeff Grabill

Report. Jeff Grabill reported the organization's policy for selling email and postal addresses, and reminded members that they can opt out and restrict their information from sale.

Action. Dale Sullivan moved that the executive committee be allowed to sell email addresses for research purposes so long as the membership has the opportunity to opt-out or remove their addresses from the list. George Hayhoe seconded. Motion passed.

d. Upcoming CPTSC meetings—Jeff Grabill

Report. Jeff reported that the 2006 meeting would be held in San Francisco, and the 2007 meeting would be scheduled at East Carolina University following Jan Tovey's invitation. The 2008 meeting will be held in Minnesota. He reported that the University of Arkansas—Little Rock would like to be considered for future meeting.

Action. Geoff Sauer moved to ratify San Francisco as the 2006 site. Dale Sullivan seconded the motion. Motion passed.

e. Shared CPTSC and ATTW meetings—Jeff Grabill

Report: Jeff asked the membership for its sentiments on combining the CPTSC and ATTW meetings.

Discussion. The members discussed the different conference formats and wondered if both conferences could maintain their current configuration. Others were concerned about ATTW breaking away from 4Cs, and noted that local hosts will be most affected by such a change. Members suggested that the following scenarios be considered:
- Combine meetings every five years
- Combine CTPSC with Forum, rather than ATTW, and hold meeting internationally
- Appoint a task force to study different schedules and recommend different ways to combine meetings

Action. Elizabeth Pass moved to table the issue and ask ATTW about its interest in combining with CPTSC in a joint meeting. Michael Salvo seconded. Motion passed.

f. 2006 meeting site—Lu Rehling

Jeff Grabill extended an invitation for all members to join CPTSC in San Francisco in October 2006.

Meeting adjourned at 12:00.

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CPTSC Treasurer's Report

	Subtotal	Total	Balance
Balance forward from 2004			**$ 22, 577.71**

INCOME

2004 Conference @ Purdue	1790.45		
Dues paid via conference (105)	2100.00		
Dues paid individually (44)	880.00		
Institutional dues (1)	100.00		
Mailing List Rental (Erlbaum)	150.00		
Total Income		5020.45	$ 27,5988.16

EXPENSES

'04 Conference			
Keynote Speaker honorarium	150.00		
Refund of conference registration	330.00		
(3 @ $110) for plenary speakers			
'05 Limerick Conference	617.89		
2 Research Grants @ $500	1,000.00		
Executive Board			
Board Meeting in San Francisco	144.16		
Newsletter printing & postage	241.27		
Exec Bd copy charges	31.75		
Award plaques	31.88		
Ex Bd Meeting inLubbock	60.82		
Total Expenses		(2607.77)	

BALANCE ON HAND AS OF SEPTEMBER 30, 2005   **$ 24,990.39**

2005 CPTSC Officers

Officers

President
Jeff Grabill
Department of Writing, Rhetoric and
American Cultures and Co-Director,
WIDE Research Center
Michigan State University
235 Bessey Hall
East Lansing, MI 48824
grabill@msu.edu

Vice-President
James M. Dubinsky
Department of English
Virginia Tech
Blacksburg, VA 24061-0112
dubinsky@vt.edu

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

Secretary
Kelli Cargile Cook
Utah State University
3200 Old Main Hill
Logan UT 84322-3200
kcargilecook@english.usu.edu

Members-at-Large

- **Nancy Coppola**
Department of Humanities and Social
Sciences
- New Jersey Institute of Technology
- Newark, NJ 07102-1982
- coppola@njit

- **Linda Driskill**
- Jesse H. Jones Graduate School of
Management
- Rice University
- P.O. Box 2932
- Houston, TX 77252-2932
- driskila@rice.edu

- **Jerry Savage**
- Department of English 4240
- Illinois State University
- Normal IL 61790-4240
- gjsavag@ilstu.edu

CPTSC Members

Adams, David
Adkins, Kaye
Agena, Kate
Allen, Nancy
Allen, Jo
Allison, Elizabeth
Andrews, Deborah C
Atkinson, Dianne
Balkema, Sandra
Ball, Cheryl
Barker, Thomas
Beasley, Amy
Benninghoff, Steve
Berncik, Philip
Black, Suzanne
Blair, Kristine
Blakesley, David
Blankert, Jennifer
Bleetman, Jacqui
Blythe, Stuart
Bokor, Michael
Bowie, Jennifer
Brasseur, Lee
Bridgeford, Tracy
Burnett, Rebecca
Carnegie, Teena
Carter, Locke
Clark, Lawrence
Coney, Mary B.
Cook, Kelli Cargile
Coppola, Nancy
Coulson, Heath
Dautermann, Jennie
Ding, Huiling
Dragga, Sam
Driskill, Linda
Dubinsky, James
Edminster, Jude
Feinberg, Susan
Filimon, Stephany
Flinn, Tony
Franke, David

Gehrs, Scott
Griggs, Karen
Harley, Kay
Harner, Sandi
Hart Davidson, Lillian
Hovde, Majorie
Jabusch, William
Jennings, Ann
Jindal, Divya
Johnson, Evelyn
Johnson, Molly
Johnson, Robert R.
Johnson-Winston, Pat
Kaempf, Charlotte
Karis, Bill
Kastberg, Peter
Kemble, Jennifer
Kimball, Miles
Kitalong, Karla
Knievel, Michael
LaGrandeur, Kevin
Lax, Joanne
Linsky, Elisa
Loane, Kevin
Lutz, Jean
Maid, Barry
Mara, Andrew
Maylath, Bruce
McGovern, Heather
McNair, Lisa
Mikelonis, Victoria
Morgan, David H.
Morgan, Margaret
Mott, Richard
Nagelhout, Ed
Nardone, Carroll
Northcut, Kathryn
Orr, Thomas
Oswal, Sushil
Platten, Tricia
Rainey, Kenneth
Rehling, Louise

Riordan, Dan
Rodgers, Ida
Rude, Carolyn
Salvo, Michael
Sapp, David Alan
Sauer, Geoffrey
Savage, Gerald
Schnakenberg, Karen
Seible, Marcea
Sharpe, Victoria
Simmons, Michelle
St. Amant, Kirk
Staggers, Julie
Starke-Meyerring, Doreen
Stevens, Amidon
Stolley, Karl
Sullivan, Dale
Thatcher, Barry
Tovey, Janice
Vande Brake, Katherine
Vosecky, Tom
Walikainen, Dennis
Warren, Thomas
Watt, Anneliese
Wickliff, Gregory
Willerton, Russell
Williams, Sean
Williamson, William
Worley, Wanda
Worley, Rebecca
Yeats, Dave
Zappen, James
Zeleznik, Julie
Zoeteway, Meredith
Zuidema, Leah