

Volume 4 Issue 1

# Programmatic Perspectives

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# Programmatic Perspectives

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Front Matter..... i

## From the Editors

Issue Preview ..... 1

*Tracy Bridgeford and Bill Williamson*

## Articles

Evaluating the Effectiveness of a Network of Communication ..... 5  
Channels: Lessons Learned from a Communication Survey  
in Technical Communication Programs

*Susan Popham, Lora Arduser, Kelli Cargile Cook, Marjorie Rush Hovde,  
Amy Koerber, Scott A. Mogull, and Pavel Zemliansky*

The Role of Historical Study in Technical Communication ..... 42  
Curricula Technical Communication Programs

*Edward A. Malone and David Wright*

NSF ADVANCE Grants and Technical Communication Faculty..... 88

*Kathryn Northcut*

## CPTSC 2011 Keynote

Crossing the Not-So-Great Divide: Academics as ..... 107  
Technical-Communication Practitioners

*Hillary Hart*

## Program Showcase

Moving On and Beyond: Technical Communication ..... 113  
Program Assessment at Michigan Technological University

*Ann Brady and Erik Hayenga with Jingfang Ren*

## Guest Editorials

An Editorial Introduction: A New Curriculum Showcase ..... 136  
Section for *Programmatic Perspectives*

*K. Alex Ilyasova*

A Call for a Coordinated, Inter-organizational ..... 143  
Exploration of Current Arrangements

*Stuart Blythe*

**Book Review**

*Performing Feminism and Administration in Rhetoric . . . . .* 149  
*and Composition Studies*

*Alex Layne*

**Announcements . . . . .** 152

## Issue Preview

### **Tracy Bridgeford**

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**W**e are pleased to present the first issue of 2012. It's hard to believe that the journal is already beginning its fourth year of publication. How did we get here so quickly? This year brings many changes to the editorial staff.

First, we'd like to share that program showcase articles will now be peer reviewed. With that change, we are pleased to introduce Kirk St. Amant from East Carolina University who will take on the position of the new Program Showcase editor. Upon receiving a submission, Kirk will seek out reviewers from our existing review board or from his own list of reviewers. If you are interested in reviewing or submitting a program showcase, contact Kirk at <stamantk@ecu.edu>.

Second, we're excited to introduce an upcoming new section of *Programmatic Perspectives*—the Curriculum Showcase. This section resulted from a conversation with K. Alex Ilyasova at the most recent annual meeting in Harrisonburg, Virginia, who started us thinking about how different institutions design particular courses such as a Diversity and Technical Communication course. Subsequently (or is it consequently?), we asked Alex to write the first curriculum showcase article to be published in the September 2012 issue. In the spirit of "be careful what you ask for," we then asked her to become editor of the new section. These articles will be peer reviewed, and like Kirk, Alex will draw from our existing or her own lists of reviewers. If you are interested in reviewing or submitting a curriculum showcase, contact Alex at <kilyasov@uccs.edu>.

Third, in the same vein as "be careful what you wish for," Donna Kain, East Carolina University, offered her services to the journal. We're starting to think that there was something in the water in Harrisonburg. To this end, we are pleased to welcome Donna to our editorial staff as copyeditor.

Fourth, we are pleased to have a former associate editor return to our editorial staff, but now as Book Review editor. Welcome to Laurence José from Grand Valley State University in Michigan. Karla Saari Kitalong, one of the founding editors, who moved into the book review editor position two years ago, will be stepping down effective with this issue. But in true Karla fashion, she recommended Laurence, former associate editor at Michigan Tech. We are very happy to have Laurence back in the editorial family. If you'd like to review books, contact Laurence at <josel@gvsu.edu>.

Finally, we are sad to say goodbye to Michael Salvo as editor. Michael has assumed the graduate program director position at Purdue University, severely limiting his time and energy for the kind of tasks required of editors. Michael brought to the journal a fresh perspective that most recently led to articles on diversity, a welcome addition to our subject index. Michael delivered on the promises he made in Issue 2.2: "to listen closely to CPTSC members" and "to act in service to our scholarly voice and need." We are sorry to see him go, but, as the community understands, administrative positions can be demanding. We wish him the best of luck.

Now on to the current issue. We're excited to present such a robust issue. Leading this issue is an article by a collection of scholars well known to all of us in the CPTSC community report on the results of a survey they conducted about the ATTW communication channels. These authors—Susan Popham, Lora Arduser, Kelli Cargile Cook, Marjorie Rush Hovde, Amy Koerber, Scott Mogull, and Pavel Zemliansky—all members of the Association of Teachers of Technical Writing's (ATTW) Communication Committee, asked survey participants about the effectiveness of ATTW's print publications (*Technical Communication Quarterly* and the ATTW Series in Technical Communication), its *Bulletin*, [attw.org](http://attw.org), and the ATTW listserv. They provide guidance to program administrators and organizations (such as CPTSC) for thinking about the effectiveness of their own organizational communication structures.

Also drawing from a survey, Edward Malone and David Wright report on the importance of history courses to our programs. Locating the beginning of the technical communication curricula in the 1950s, these authors make recommendations for integrating the study of technical communication history as a practice, a profession, and a discipline into our program curricula. Program administrators who responded to the survey indicated the value they placed on including historical sources in existing courses or on creating new history-focused courses using sources already available. It is clear from their results that program administrators value the study of history as a part of their programs.

Shifting our attention outside academia, Kathryn Northcut provides an overview of the National Science Foundation ADVANCE program, explor-

ing ways non-Science, Technology, Engineering, and Mathematics (STEM) faculty, especially women, can take better advantage of this grant program and possibly integrate NSF ADVANCE initiatives on our local campuses. She offers ideas for this integration and provides an overview of the program, how it works, ways technical communication faculty can fit into the goals of the program, and how the interdisciplinary nature of our work makes for a natural connection.

We're thrilled to publish the keynote address from the 2011 CPTSC annual meeting by Society for Technical Communication's (STC) current president, Hillary Hart. In this talk, Hart invited us to reconsider three main debates that have occupied the field for decades. She explores how differing perspectives about areas within these debates—namely, the academy-industry dichotomy, the idea of certification, and STC engagement with academic practitioners—have evolved over the years as part of efforts to strengthen the relationship between academia and industry.

In the interest of providing unique, engaging program showcases, we are eager to present a discussion of Michigan Technological University's (MTU) formative program assessment practices offered by Ann Brady, Eric Hayenga, and Jingfang Ren. They document a history of the Scientific and Technical Communication (STC) program assessment and chronicle its historical development, characterizing the progression of approaches to program assessment as, specifically, system-centered, user-centered, and most recently, participatory assessment.

In an engaging guest editorial, Stuart Blythe asks us to question both the quality and policies of the organizations most representative of the field of technical communication, CPTSC and ATTW, and their role in the field. From his vantage point as a former member of the CPTSC executive committee and current member of ATTW's executive committee, as well as past program chair for both organizations, Blythe asks us to consider initiating discussions about scope, role and sustainability.

Finally, Alex Layne reviews *Performing Feminism and Administration in Rhetoric and Composition Studies*, edited by Krista Ratcliffe and Rebecca Rickley, a new Hampton Press book. Layne deems the book valuable for program administrators, who likely will identify with the experiences recounted and perhaps find guidance when negotiating their values within organizational structures.

We'd like to end this preview with a reminder that we are still accepting logo submissions for this journal from undergraduate and graduate students. The winner will receive \$100. There is also the possibility for two honorable mentions to win \$50 each. Logos should be submitted to Tracy



Bridgeford (tbridge2@cox.net) in JPG, GIF, or PNG formats. We hope to showcase the best submissions on the <http://www.cptsc.org/pp> website. Winners will need to submit logos again in their raw format. The executive committee will review and vote on the logos. The deadline for submissions is April 1, 2012. Winners will be announced by the end of April.

Whew! That's it for this issue. Remember that we continue to seek submissions focusing on all areas of programmatic development and administration. Please consider developing your CPTSC position statements into a manuscript for future issues. Any and all commentary on this or previous issues is invited. Have a wonderful spring!

Tracy and Bill

# Evaluating the Effectiveness of a Network of Communication Channels:

## Lessons Learned from a Communication Survey

**Susan Popham**

*University of Memphis*

**Lora Arduser**

*University of Cincinnati*

**Kelli Cargile Cook**

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**Marjorie Rush Hovde**

*Indiana University-Purdue University Indianapolis*

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**Abstract.** The administrators of many programs, organizations, and associations often wonder if their program is functioning effectively and for the best purposes of the program's members. In this era of wireless, global communication modes and social network sites, these administrators may wonder if newer communication channels meet the needs of the members and the program. This study reports the results of a survey of a national organization of teachers of technical communication, a survey that asked the membership to report their perceptions of the effectiveness of the current communication channels and their interest in forging new, networked communication channels. The results revealed to

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*Programmatic Perspectives*, 4(1), March 2012: 5–41. Contact authors: <spopham@memphis.edu>, <lora.arduser@uc.edu>, <kelli.cargile-cook@ttu.edu>, <mhovde@iupui.edu>, <amy.koerber@ttu.edu>, <smogull@clemson.edu>, and <pzemliansky@gmail.com>.

## Evaluating the Effectiveness of a Communication Network

the administrators the changing population demographic of the membership, the members' willingness and interest in using newer communication channels, and their reasons for not using other channels of communication. Ultimately, the authors argue that such reflective analysis of communication channels is healthy for the continued success of a networked program.

**Keywords.** organization, networks, communication channels, membership, survey of membership, perceptions of wireless communication and social networking, membership demographics, programmatic reflection

## Introduction

**V**irtual networks have become ubiquitous in just the few decades since the invention of the Internet. They have found places in workplaces, nonprofit organizations, communities, and personal relationships, even our phones. The structures of such networks are comprised of various electronic media or channels that perform different communicative purposes for the networked members of organizations. The number of channels may not dictate the size of a network; for example, a large network comprised of many hundreds of people across the globe may use only email to perform the necessary communication involved in maintaining its existence. Conversely, a network comprised of only a few people may use many channels to maintain its cohesion. Recently, the rapid rise in the creation of popularly used virtual media has prompted many network administrators to consider implementing new channels to increase network size and network cohesion. Many network administrators see the use of new communication channels as a way to increase the popularity of their organizations and, thus, to increase membership in the organizations and to ensure that communication networks thrive. Networks, by themselves, cannot stay structurally stable; once created, regular use of networks helps them maintain purpose in organizations and gives rise to dynamism of networks. A static network atrophies as its members' lives change. As sociologist Anthony Giddens (1984) reminded us, structures as acted upon by purposeful agents—human beings—are reflexively and continuously monitored. Such monitoring is a necessary element of keeping a network purposeful and useful to its organization.

Organizational communication scholars, such as Wanda Orlikowski and JoAnne Yates (1992), often study the use of electronic genres within organizations and organizational structures, or like Jason Swartz (2011), study the technological literacy of network creators. This study takes a different approach in looking at the actual channels that structure the network for an organization, assuming that these channels, like organizational genres,

## Evaluating the Effectiveness of a Communication Network

both reify and are reified by the actions of the network members. For organizations that seek to maintain a purposeful and healthy network so that members can conduct and distribute their work effectively, monitoring and restructuring the network channels is a necessary part of organizational health. This study closely examines how communication channels are used by, and are of use to, the members of a networked community and how members' perceptions can help administrators restructure a network to enhance growth and future use.

To address these and other concerns, the Communication Committee of the Association of Teachers of Technical Writing (ATTW) recently conducted a survey assessing the effectiveness of communication channels and practices within the ATTW organization. The insights gained from the process may be useful to administrators in similar organizations and programs, especially those with a widely dispersed membership, as they regularly seek to determine whether their communication practices and channels are effective.

Communication exchange and support have been at the heart of ATTW from its inception in 1973. Since then, the associational life of ATTW has flourished through a network of communication channels, ranging from a print journal to an annual conference. These channels provide support, education, and scholarly venues for ATTW's members. At almost decadal intervals, however, the association has expanded and modified its network, usually by gathering feedback through business meetings and executive committee actions. This article reports the most recent survey of ATTW members to determine their communication needs and their attitudes about the current network and its channels. The survey findings reported here will guide organizational communication—including network updates, modifications, and additions—for coming years. Network changes wrought by the survey's findings will affect technical communication students, instructors, and programs affiliated with ATTW.

The need for a structure in which technical writing instructors could communicate with each other emerged in 1973 at the Conference on College Composition and Communication (CCCC) in New Orleans (Connors, 2004; Cunningham, 2004; Kynell & Tebeaux, 2009). The idea for the association was sparked in a discussion following Donald Cunningham's and Howard Estrin's panel presentations. By all accounts, the individuals who discussed this need found themselves isolated in departments where they had little support for the teaching they were doing. According to Cunningham, "The field lacked established forums for sharing of information, and people sought help in any ad hoc way" (p. 122). An organization,

## Evaluating the Effectiveness of a Communication Network

the founders thought, would serve as a clearinghouse, providing a more systematic way for individuals to share ideas, discuss syllabi and textbooks, and identify other teaching resources. Describing the individuals who formed the group, Cunningham wrote, "We were simply a small clutch of colleagues noodling over some recurring problems related to establishing quality in teaching technical writing" (p. 121).

Among the first communication channels of the new organization was *The Technical Writing Teacher*, a scholarly journal. Describing the earliest issues of the new journal, Robert J. Connors (2004) noted, "Though the early issues were somewhat crude, the journal underwent marked improvements through the decade" (p. 16). By the early 1990s, the journal's weaknesses in format and contents led ATTW members to discuss possible changes and improvements. Mary Lay (2004) described the discussions and their outcome as follows:

ATTW members were calling for several changes: The name of the journal no longer represented who we were and what we did; the cover and binding needed updating; and we wanted to see more interdisciplinary and theory-based articles. ATTW members concluded that we were not only teachers but scholars and researchers as well. And our research and teaching focused not only on writing but also on speaking and on visual design. Jack [Selzer] suggested that we publish four issues a year, and so we became the *Technical Communication Quarterly* (we all liked the sound of TCQ). (p. 109)

Self-published by the ATTW, TCQ was housed at the University of Minnesota from 1991 to 2003 with Mary Lay as editor. In 2003, the journal moved to Utah State University and was co-edited by Mark Zachry and Charlotte Thralls until 2006 when Zachry became editor. In 2008, Amy Koerber assumed the editorship and the journal moved to Texas Tech University. With each change in journal location and editorship, the journal has shifted in efforts to meet its readers' needs in better ways. Informing those changes in 2003 was an ATTW member survey conducted by David Dayton and Stephen Bernhardt (see Dayton & Bernhardt, 2004, for survey results).

This cycle of invention, development, critique, and reinvention has characterized not only the evolution of ATTW's journal but also the development and evolution of its other communication channels. Following the success of the journal, its first communication channel, additional channels were added to ATTW's communications network mostly in the 1990s. Among these additional channels were the *ATTW Bulletin*, the *ATTW Con-*

## Evaluating the Effectiveness of a Communication Network

*temporary Studies in Technical Communication* book series, the ATTW anthologies, two Internet channels—the ATTW Website ([www.attw.org](http://www.attw.org)) and a listserv (ATTW-L)—and an annual conference. Changes in technology during those years helped noticeably in making more channels available to members and potential members. Teresa Kynell and Elizabeth Tebeaux (2009) described the introduction of these channels as follows:

The *ATTW Bulletin* emerged (Jo Allen and Sherry Southard from East Carolina were the first editors) to take over some specific teaching issues and to help first-time teachers. The anthologies and book series became more important. The whole profession was growing and changing from its founding focus. (p. 135)

The *Bulletin* remains an active communication channel in the ATTW network. Editors have included Jo Allen and Sherry Southard, East Carolina University; Alice Philbin, James Madison University; Marjorie Rush Hovde, Indiana University-Purdue University, Ed Nagelhout, University of Nevada, Las Vegas; and Lora Arduser, University of Cincinnati, and Ryan Hoover, St. Edwards University. Like all of ATTW's communication channels, the *Bulletin* has changed over the years to meet membership and organizational needs. For example, during Hovde and Nagelhout's editorship, the *Bulletin* shifted from paper to electronic delivery to save the organization postage expenses. However, because of the introduction of communication channels in the late 1990s, such as the listserv and the website, the editors realized that some topics they had typically covered in the semiannual newsletter, such as calls and job announcements, were also being communicated in a more timely fashion in the listserv. They began to question how the role and the content of the newsletter might change. In addition, the editors raised questions about whether members read and valued the *Bulletin* and whether it had come to the end of its usefulness to ATTW.

The development of ATTW's book series and anthologies allowed the organization to support extended and scholarly research and to share it with interested readers. Both series covered a broad range of topics, but both significantly attended to the teaching, research, and professional development needs of the association's members. The anthologies covered topics ranging from pedagogical support for collaboration and assessment in the classroom to theory analyses and professional development. Before the ATTW Anthology Series ended, eight anthologies, with Donald Cunningham as the series editor, were published from 1985 to 1994. The subsequent *ATTW Contemporary Studies in Technical Communication* book series, edited by Stephen Doheny-Farina and Bill Karis of Clarkson Univer-

## Evaluating the Effectiveness of a Communication Network

sity, was published originally by Ablex and later by Greenwood. From 1997 to 2002, its 15 volumes covered a variety of issues in technical communication: pedagogical, theoretical, and professional. Neither of these books series is currently active, although a new series is under development with Taylor & Francis.

Fostered by innovations in technology, additional communication channels in the ATTW network allowed for interactive and timely communication among members and other interested individuals. Under the leadership of Sam Dragga of Texas Tech University, ATTW established a website in 1994 ([www.attw.org](http://www.attw.org)) and the ATTW-L listserv in 1997. The website was originally developed in static HTML pages, but in the early 2000s, website developers/administrators Craig Baehr, Susan Lang, and Sam Dragga redesigned the website platform from HTML pages to Plone to allow dynamic content. The website was housed at Texas Tech University until 2010 when it was moved to a commercial provider, and Pavel Zemliansky assumed the website administrator role. The listserv was also housed at Texas Tech University until 2011 when it was moved to Interservice.org, and Ryan Hoover became list administrator.

In 1997, the same year that the ATTW-L listserv was created, the annual conference was also established, thus providing an interactive, face-to-face communication channel for members and other interested individuals. According to Kynell and Tebeaux (2009):

After becoming ATTW president in 1997, Sam Dragga (Texas Tech) launched the first ATTW meeting in Chicago at CCCC in 1998. The announcement and call for proposals, entitled, "Remembering Our Past: Planning Our Future," focused on change: how will technical communication change in the next decades? (p. 136)

The conference continues to draw scholars nationally and internationally, giving them an opportunity to share their research and also to form and reinforce social connections with other members of the field.

As the organization has grown, ATTW members have made changes to organizational communication channels to make them more viable solutions to members' needs for support, education, and scholarly venues. Over time, however, some changes to these channels can only be described as *patches*, quick fixes that kept communication channels open but with limited efficiency. In these cases, the changes have weakened the viability of the entire network; for example, individuals have struggled to join or renew their memberships; the listserv's *reply* functionality has sometimes created unintentional spam, and the Plone-based website

## **Evaluating the Effectiveness of a Communication Network**

recently was taken offline for security violations. Problems such as these suggest that some parts of ATTW's organizational communication structure are showing signs of wear and even failure. Just as significantly, social media have changed the ways members interact with others, creating communication immediacy unimagined 10 years ago.

To maintain network strength, ATTW has a tradition of evaluating and reinventing its communication channels: the initial organizational discussions in 1973; the membership's call for change in the early 1990s that resulted in the creation of TCQ; Dayton and Bernhardt's (2004) membership survey that led to organizational, website, and journal revisions in the mid-2000s. In fact, ATTW's communication channels have historically undergone changes every decade, and the membership's needs have driven the creation, modification, and sometimes discontinuation of channels. The current need for changes to, and perhaps complete overhaul of, the communication network arose at the annual conference in 2010. At the annual business meeting, members strongly requested new Web-based means to pay their association dues and conference fees, and the executive committee noted considerable problems with membership tracking and website functionality, such as the security violations that precipitated the website's move to a commercial provider.

To respond to these needs and to evaluate the effectiveness of all of its current communication network configurations, the ATTW Communication Committee was formed. This article describes the committee's work developing, implementing, and analyzing a survey of the communication network within the ATTW organization. Building on Dayton and Bernhardt's (2004) scholarship, this survey examines the current communication channels of a professional academic organization in a Web 2.0 era. The survey and its results provide valuable insights to other organizations that wish to evaluate their communication channels carefully and make changes guided by broadly-based feedback from their audiences.

## **Methods**

### **Survey Development**

In March of 2010, ATTW formed a Communications Committee to help revise and rebuild the communications channels of the organization; committee selection included those who had a vested interest in improving specific communications channels: the president of ATTW, the communications officer, the TCQ editor and development editor, incoming and outgoing *Bulletin* editors, the incoming website administrator, and the



## **Evaluating the Effectiveness of a Communication Network**

membership coordinator. Such diversity helped to ensure gathering data that would help the organization in a number of ways. Students at Indiana University-Purdue University Indianapolis conducted pre-survey testing in early 2010 to help the committee identify common themes and strengthen our focus on important issues. From June to September 2010, the committee conducted at least 12 Skype meetings to develop survey questions (see Appendix A) focused on the specific organizational areas in which the committee members had responsibilities. As a team, they continually reminded each other of the goal of the survey and the purpose of each question: "How will we use this information gathered from this question to improve our communication channels and strengthen our organization?" The survey was created in Qualtrics, a professional-quality survey tool, and was pretested by the Executive Committee of ATTW at the end of October, 2010, after approval from the Human Subjects Board of the University of Memphis was secured in early October.

### **Survey of ATTW Members**

From November to the end of December, 2010, a link to the survey was sent to the registered members of ATTW. Instead of polling everyone participating on the listserv, over 680 people, the committee wanted to focus on registered members to understand their reasons for maintaining membership and to understand how those who had chosen to be members perceived the communication channels. Through an email blast conducted by Taylor & Francis, the publisher who maintained the membership roster, members were reminded three different times during seven weeks to complete the survey. Of the 300 registered members of ATTW at that time, 138 completed the survey, with more than 120 completing the survey before the second email blast was sent. In total, 46% of the registered membership completed the survey, compared to Dayton and Bernhardt's survey (2004) with a rate of 56%.

This decrease in the percentage of participants who responded could be explained in several ways. Membership has declined from 448 in 2004 to 300 in 2010; additionally, current members may be less likely to respond to online survey requests, perhaps showing what could be construed as request overload as many Internet, Web 2.0, and email users face an increasing number of requests to participate. Further, current members may believe that the association is stable or, more than likely, that their responses are unlikely to have a noticeable effect on the association structure or communication. Certainly, some comments to the open-ended question, "What other issues about ATTW communication channels would you like to share with the leadership?", reveal

## Evaluating the Effectiveness of a Communication Network

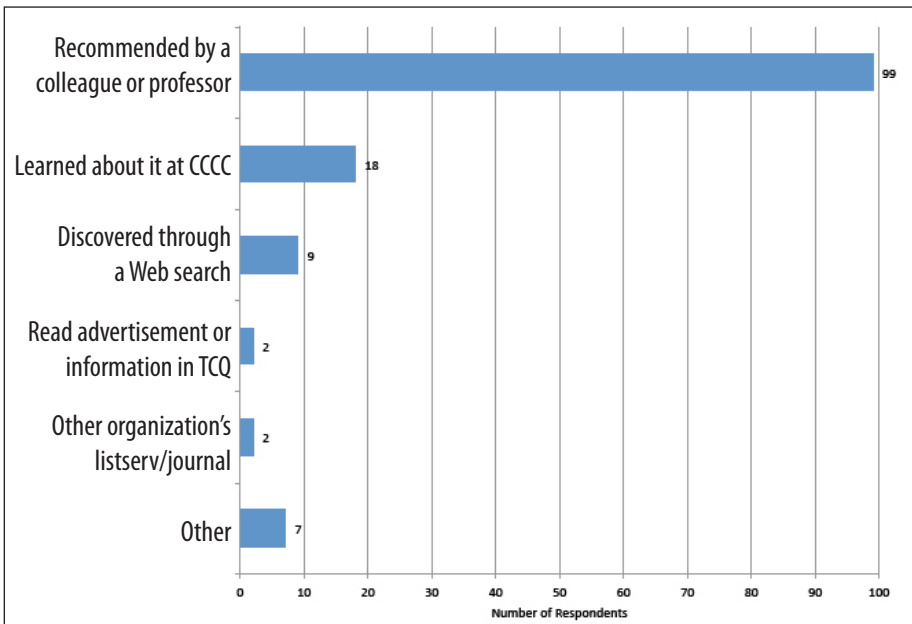
some negative perceptions of the association's current communication channels, for example: "I hate the methods . . . to renew," and "The ATTW Website is unresponsive . . . I do not use the Website or the listserv." Thus, the results from the survey, as reported below, and the decrease in membership, clearly showed that the ATTW organization needs to pay attention to member views, and the results helped to provide valuable guidance for changes in ATTW's communication channels to help re-engage the community's members.

## Results

### Demographics

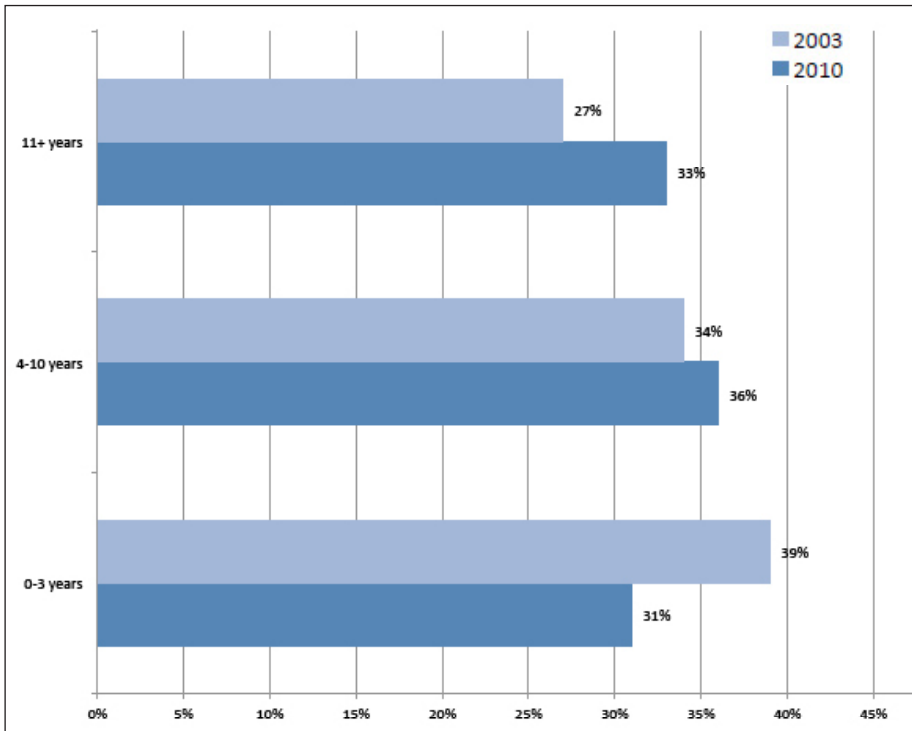
To guide the process of changing the organization's communication channels to better serve the members, leaders in ATTW first needed to know the ATTW audience. The following data gleaned from the 2010 survey provide a picture of ATTW's membership that can assist the organization in communicating more effectively with them and in enabling members to communicate more effectively with each other. This section, therefore, focuses on how respondents learned about ATTW, how long they have been members, what their educational backgrounds are, and what other professional affiliations they have. This section also compares several of these findings to the Dayton and Bernhardt (2004) survey of ATTW members.

Overwhelmingly, respondents learned about ATTW through a colleague or professor, as indicated in Figure 1. This finding suggests that



**Figure 1. Respondents learned about ATTW from others (n=137).**

## Evaluating the Effectiveness of a Communication Network



**Figure 2. Respondents are new, veteran, or long-term (n=138).**

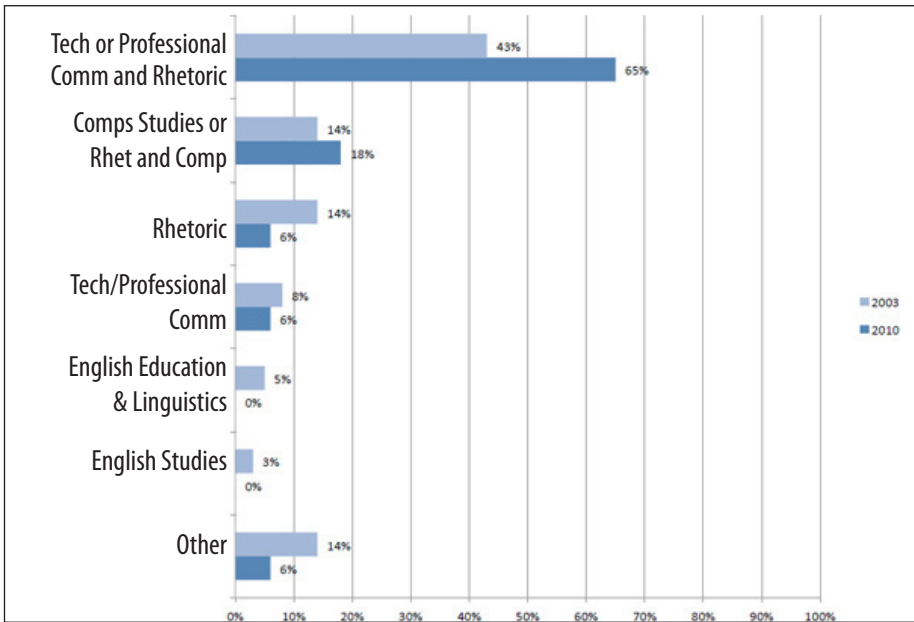
ATTW leadership may need to encourage members to recruit new members. However, the organization may be able to enhance recruiting to other groups of potential members as well.

Rates of memberships over the past seven years show that recruiting new members is a constant need as long-time members move toward retirement and others enter the field. Figure 2 compares the results to those of the Dayton and Bernhardt survey.

Current PhD students who have joined the association are mostly students in technical or professional communication (TPC) programs, a category in which ATTW might strengthen communication and recruitment efforts. Figure 3 suggests notable changes since the 2004 study.

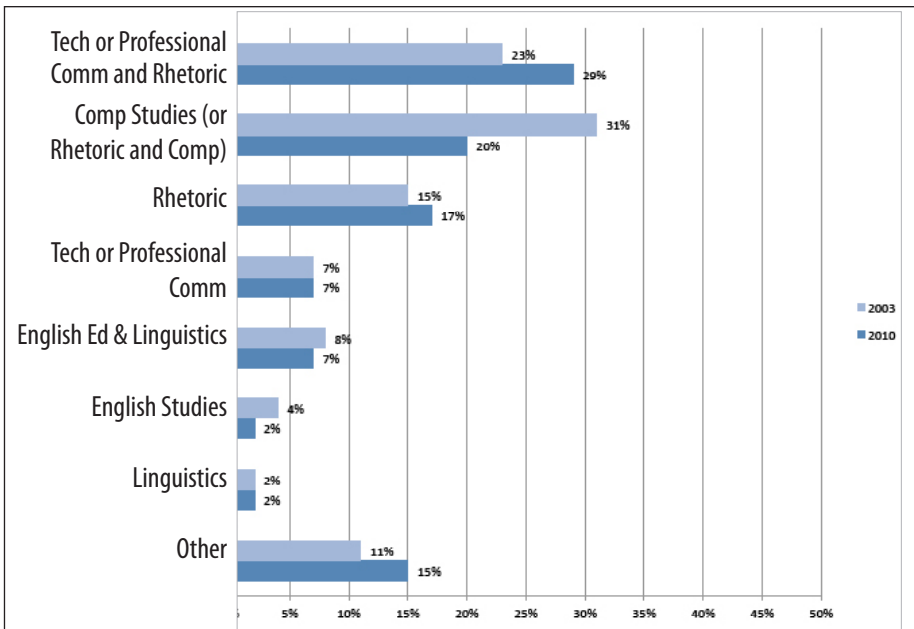
Contrary to what may have been the case in the past, respondents have earned their degrees in a variety of areas, as indicated in Figure 4. In the listing of other professional organizations of which respondents are members, one sees traditional "English/composition" organizations, but Figure 5 indicates more membership change in those focused on technical/professional communication, such as increases in memberships in the Council for Programs in Technical and Scientific Communication (CPTSC) and the Professional Communication Society (PCS) of the IEEE, and a de-

## Evaluating the Effectiveness of a Communication Network



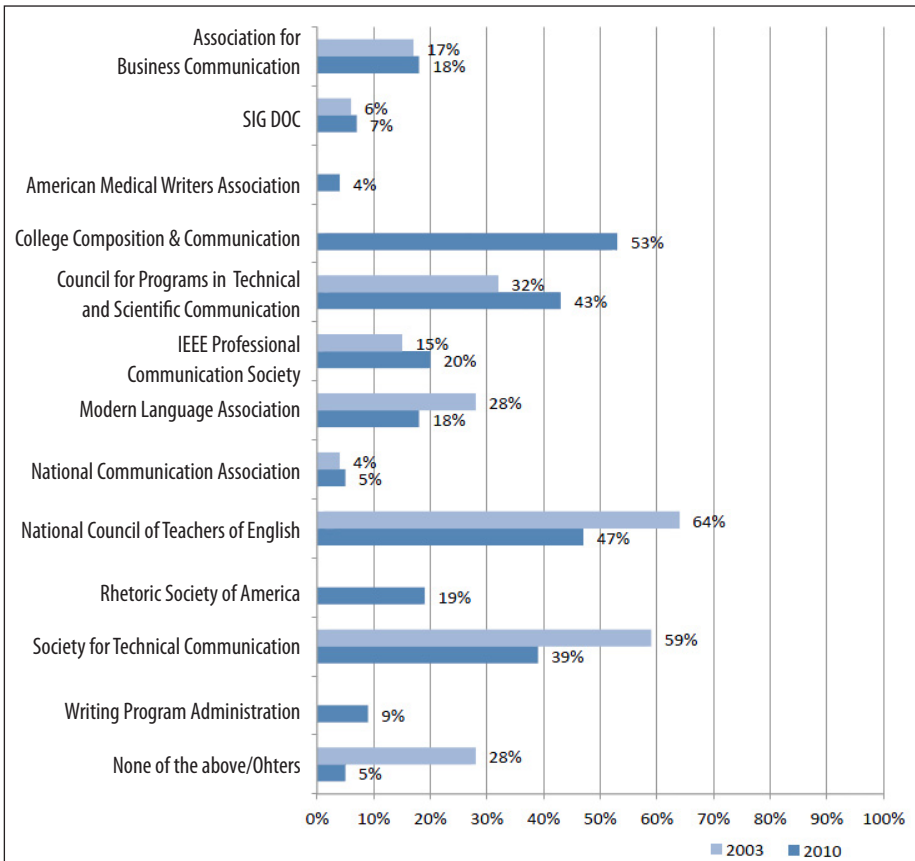
**Figure 3. Respondents who are currently earning PhD degrees (n=138).**

crease in membership in the Society for Technical Communication (STC). (Note: in 2004, National Council of Teachers of English (NCTE) and College Composition and Communication (CCC) membership were reported as a single category.)



**Figure 4. Respondents come from a variety of fields (n=17).**

## Evaluating the Effectiveness of a Communication Network



**Figure 5. Respondents belong to Technical/Professional Communication and traditional “English” professional organizations (n=137).**

Although the survey results confirmed the assumption that much of the membership is affiliated with traditional “English” organizations, a few details emerged that the team had not anticipated. For example, results indicate that members have a variety of backgrounds from multiple disciplines. The organization’s leadership may not be able to assume common expectations or needs from all members and should be willing to adapt information and media to better suit these diverse backgrounds. In the areas of recruiting, the survey showed that the organization needs to continue efforts to recruit new members, perhaps by encouraging current members to communicate the value of the organization to potential new members. One way to do this may be to create stronger ties with other professional organizations listed in Figure 5 with which the membership currently shares interests. The leadership may also need to consider other ways to communicate to potential members the value of the professional benefits that the association can offer.

## Evaluating the Effectiveness of a Communication Network

**Table 1. Academic programs where members teach.**

		BA	MA	PhD
Program or department dedicated to technical/professional communication	2003	—	30%	16%
	2010	—	36%	14%
Specialization, concentration, or major in technical/professional communication	2003	45%	12%	9%
	2010	47%	17%	7%
Certificate program in technical/professional communication	2003	5%	1%	—
	2010	15%	2%	—
Minor in technical/professional communication	2003	10%	—	—
	2010	29%	—	—
Some courses in technical/professional communication	2003	18%	14%	5%
	2010	30%	—	—
Service courses in technical/professional communication	2003	11%	—	—
	2010	46%	—	—

### Where do respondents work?

The survey results showed that members overwhelmingly identified themselves as teachers of technical writing (86% or 116 respondents), with 74% (or 83 respondents) reporting status as tenured or tenure-track. In Dayton and Bernhardt's survey (2004), members reported similar job descriptions: 93% described themselves as teachers rather than retirees or practitioners, and 72% reported working in tenured or tenure-track positions. For the most part, these teaching positions were primarily at the undergraduate and master's degree levels rather than at the doctoral level. Table 1 shows these data in comparison to Dayton and Bernhardt's survey results, suggesting that the teaching status of ATTW members has changed little in the past decade, and perhaps that colleges and departments may see little need to alter degree programs in the area of technical and professional communication. According to these results, the only academic program area to see growth over the interval between the 2004 and 2010 surveys has been that of undergraduate, nonmajor programs: service courses, BA minor programs, and programs with "some courses in technical and professional communication."

These data describing the respondents' institutions may indicate a trend to delegate a curricular focus on technical and professional communication to nondegree status, perhaps adjusting to student interest and demand, or bowing to other curricular demands that are more likely to claim degree status at the undergraduate level. At the graduate program level, these data

## Evaluating the Effectiveness of a Communication Network

suggest that the academic status in graduate programs of technical and professional communication teachers has remained relatively stable, and that ATTW might do well to maintain its commitment to encouraging and supporting new and veteran teachers of technical communication as they explore pedagogies, share resources, and create viable networks focused on teaching. As current academic environments change with fluctuating fiscal constraints for many universities and colleges, ATTW would benefit from resurveying its members in future years to see how the academic field changes for its members. This survey presents a baseline on which to gauge future programmatic changes in the academy. Further, although the survey targeted members of and issues of the ATTW organization, these programmatic data are likely of interest to members of CPTSC.

### ***What do respondents value in ATTW's communication channels?***

Overall, the survey results revealed that members valued the information they received from the various ATTW communication channels, and they noticed when these channels failed. The channels and content that survey respondents most highly valued were (in order of preference):

1. *Technical Communication Quarterly* (TCQ) (87%)
2. News and announcements (research and publication announcements & opportunities, developments in the field, new resources, job openings) (67%)
3. Annual conference (56%)
4. Discussions (scholarly issues, teaching support, technology updates, professional development) (ranging from 35% to 59%)
5. Ease of renewal and subscription (43%)
6. Static website content (ATTW bibliography, program profiles, organizational information, syllabi and teaching resources) (ranging from 9% to 36%)

In the following sections, we discuss the results of the survey questions for the existing communication channels (TCQ, the *Bulletin*, the listserv, and the website) in terms of how successful or unsuccessful members perceive each channel to be in delivering these categories of information.

## **TCQ**

The TCQ-related survey questions were designed in four categories to designate how people use the journal: to stay abreast in the field, to cite for individual research projects, to use as class reading material, and to submit articles for publication.

## **Evaluating the Effectiveness of a Communication Network**

The categories overlap in the sense that it is possible for an individual to use the journal in more than one of these ways. However, for simplicity's sake, the reporting and analysis of results is organized around these four categories of users.

### ***Category 1: General Readers***

Overwhelmingly, respondents indicated that the most important factor in determining whether they will read a particular TCQ article is the article's subject matter, with 100% of respondents rating this factor as either very important or important. "Clarity, style, and comprehensibility of language used in the article" followed closely, with 95% of responses rating this factor as either very important or important. Responses in the very important/important categories varied more on the three other article factors: presence and quality of theoretical ideas (90%), validity of research methods (89%), and presence and quality of practical implications (83%). The respondents indicated slightly greater attention to the theoretical ideas and research methods of the journal articles, although practical implications were also relatively important to readers. These variations reinforce the survey's overall findings about the diversity of membership, as discussed previously in the demographic section. In a related survey question, 89% of respondents answered that TCQ's current submission categories (original research articles, methodologies and approaches, and perspectives) "very effectively" or "effectively" meet their needs as readers.

### ***Category 2: Readers who seek TCQ articles for use and citation in their own scholarship***

As was the case for Category 1, the most important factor that respondents identified in Category 2 was the article's subject matter, with 100% of respondents identifying this factor as very important or important. With regard to the other factors, however, there are some differences between Category 1 and 2. Most notably, "validity of research methods and manner in which authors have described their methods" was rated a close second in this category, with 98% of respondents identifying this factor as very important or important. "Presence and quality of theoretical ideas" was the next most important factor, with 94% of respondents identifying this as very important or important. "Clarity, style, and comprehensibility of language" and "presence and quality of practical applications" were the two least important factors in this category, with 82% and 74% of respondents respectively rating these as very important or important.

### ***Category 3: Readers who use TCQ as a resource for assigned readings in classes that they teach.***

Similar to the other two categories, the article's subject matter was the top-rated factor for teachers to select an article from TCQ as an assigned reading



## Evaluating the Effectiveness of a Communication Network

in a class, with 99% of respondents identifying this factor as very important or important. Most respondents rated the other article factors as very important or important, with “presence and quality of theoretical ideas,” at 86%, the only factor rated below 90%.

### **Category 4: Scholars who write articles that they submit for peer review and possible publication in TCQ.**

In the final section of the TCQ portion of the survey, we asked respondents to evaluate various factors they consider when deciding where to submit an article. Respondents were asked to rank 9 different factors often mentioned to editors using 4-point Likert scales from “very important” to “very unimportant.” As shown in Table 2, the factor with the highest rating was “relevance of journal to research topic,” characterized by 98% of respondents as very important or important. In second place was “acceptance rate,” which 81% of respondents characterized as very important or important. Notably, respondents rated print publications more favorably than electronic, with 66% of respondents rating “print publication” as very important or important, and only 48% of respondents rating “electronic publication” as very important or important. Also notable in these results is that less than half of respondents (39%) rated “Impact Factor in the ISI rating system” as very important or important. Finally, in response to a question regarding the article submission categories, 91% of respondents answered that the categories very effectively or effectively meet their current needs as a potential authors.

**Table 2. Criteria for TCQ article submission.**

Topic	VI	I	UI	VU
Acceptance rate (n=123)	29%	52.0%	15.4%	3.3%
Electronic publication (n=121)	16.5%	31.4%	41.3%	10.7%
Print publication (n=122)	23.8%	41.8%	26.2%	8.2%
Relevance of journal to research topic (n-123)	74.8%	22.0%	1.6%	1.6%
Journal impact factor in the ISI rating system (n-119)	8.4%	31.1%	44.5%	16.0%
Readership Circulation of journal (n=121)	30.6%	45.5%	20.7%	3.3%
Turnaround time from submission to decision letter (n-122)	26.2%	54.9%	16.4%	2.5%
Turnaround time from date of acceptance to date of appearance in print (n=122)	17.2%	51.6%	20.5%	1.6%
Special issue topic (n=119)	15.1%	53.8%	26.9%	4.2%
VI=very important I=important UI=unimportant VU=very unimportant				

### **Open-ended comments**

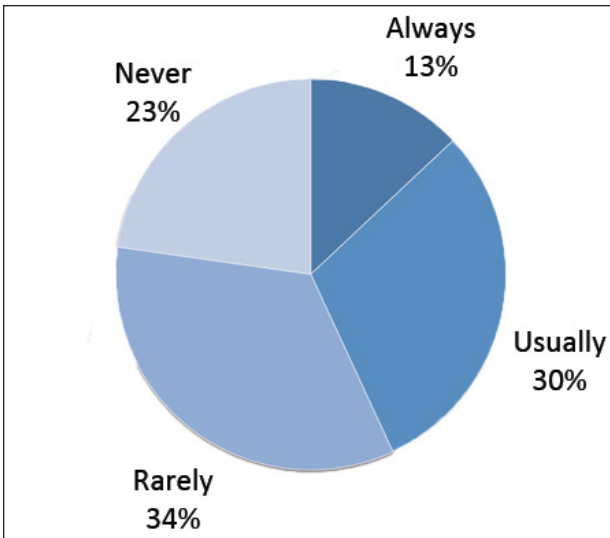
The survey, by design, solicited additional comments to allow respondents to explain their responses. The greatest number of open-ended comments was provided in response to the question, “If you have other comments about importance of other TCQ article features to your work as a reader, researcher, or teacher, please describe them.” Twenty-four comments were received in this area, and the content of these comments was wide ranging. Table 3 shows a rough breakdown of the categories into which these 24 comments fell. As indicated in Table 3, the largest number of comments (9) fell into the category of “Comment on overall journal focus.” Among these nine comments, four comments expressed the idea that TCQ has become too theoretical in its focus or that the journal needs to publish more empirical research. Two of these nine comments expressed the idea that the journal should return to a more pedagogical focus. These two ideas (that the journal needs to be less theoretical and that it should return to a pedagogical focus) were the only ones repeated more than once in the open-ended comments. In relation to article subject matter, three other topics that each received a single mention in the comments were “diversity,” “medical writing/communication,” and “health literacy.”

It is important to note that in a few cases the open-ended comments directly contradicted each other. For instance, one respondent said, “I wish TCQ had a less rhetorical focus,” whereas another said that TCQ articles “often get too focused on technology, fetishizing it to a fault, and forgetting about the rhetoric.” As another example of a direct contradiction, one respondent emphasized a preference for articles in which the author situates research claims in the available literature: “I look to see how well the author situates the discussion in the literature of TC, and the ongoing conversation about a topic.” Conversely, another respondent would prefer less of this background text so that articles could be shorter: “I think they tend to be too long. We really don’t need an exhaustive lit review on every aspect of the topic before

**Table 3. Open-ended comments about TCQ.**

<b>Coding category</b>	<b>Number of comments</b>
Overall journal focus	9
Additional factors that were not included in our survey choices	5
Desired change in article format or structure	3
Desired change in journal format or structure	3
New subject matter	2
Comment was incomprehensible or did not suggest any substantive change	2

## Evaluating the Effectiveness of a Communication Network



**Figure 6. Frequency of reading the ATTW *Bulletin* (n=123).**

getting to the study or point." Again, such contradictions are worth noting if only because they reinforce what the demographic data reveal about the diversity of ATTW membership.

The survey results suggest several interesting areas of discussion for TCQ editors. For the first three categories of journal users identified at the

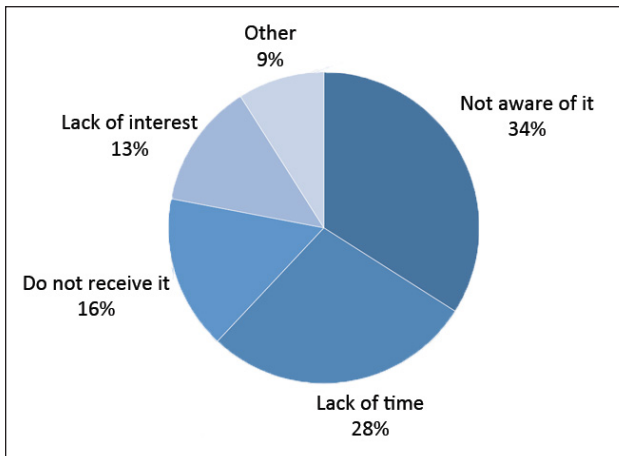
outset of the survey (scholars as general readers, scholars as researchers who cite TCQ, and teachers who use TCQ articles in the classroom), questions were designed to determine where to devote efforts to improve the quality of TCQ articles for these distinct, but overlapping, groups of users. Although the team anticipated some differences in reader values across these three areas, it turned out that subject matter of the article was the most important factor in all three areas. On the question of the journal's topical coverage, it should be noted that TCQ's statement of scope and submission categories has been revised within the last few years to prioritize research-based articles and to emphasize that the journal welcomes pedagogy articles that are based in research. It is hoped that these revised guidelines will eventually result in an increase in high-quality pedagogy submissions. (As noted previously, responses to the factors reported in Table 2 indicate general satisfaction with these revised categories, both from potential authors and readers of TCQ).

Looking beyond the question of subject matter, the other four factors of articles listed as possible responses to these questions were all deemed important enough in at least one category of use that the editors should continue to improve in these areas. Fortunately, these criteria are all explicitly addressed in the journal's current reviewer guidelines, so they are all important considerations that factor into every publication decision.

## Bulletin

The *Bulletin*, ATTW's organizational newsletter, is tasked with communicating news about members, the association, and the profession. Given the

## Evaluating the Effectiveness of a Communication Network



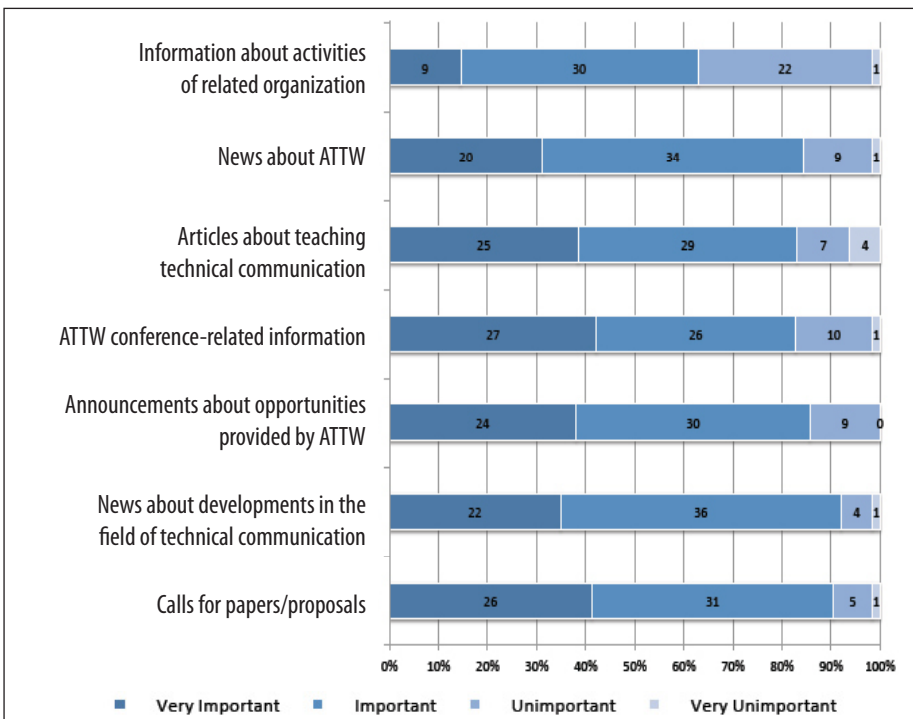
**Figure 7. Reasons for not reading the Bulletin (n=79).**

rapid pace of the flow information through virtual communication channels, however, the current editors of the *Bulletin* were concerned about the newsletter's ability to meet this function as a biannual publication. In designing the survey questions for the *Bulletin*, therefore, the areas of focus

were (1) whether people were reading the *Bulletin*, and if not, why not; and (2) what content readers found most valuable.

### Readership

Figure 6 shows the results of Question 21: "How frequently do you read the ATTW *Bulletin*?" Of the 123 respondents, 16 said they always read the *Bulletin*,



**Figure 8. Content members valued in the Bulletin (n=65).**

## Evaluating the Effectiveness of a Communication Network

37 said they usually read it, and 70 of the 123 respondents said they rarely or never read the *Bulletin*.

Question 22 was designed to determine the reasons members did not read the *Bulletin*. The responses (Figure 7) indicate that of the 79 respondents who fell into one of the two categories of rarely or never reading the *Bulletin*, 22 cited lack of time as a reason. A total of 10 respondents selected lack of interest as a response; 13 said they do not receive it; 27 said they were not aware of it; and seven responded with the category labeled as “Other.”

Responses to the “Other” category included:

- Offered no return on investment
- Doesn’t match my interests in visual [communication]
- Don’t recall if I receive it
- I’m a full-time administrator, much of it doesn’t directly apply to what I do
- I read TCQ; is that the Bulletin?
- Can’t log onto site and get no response to my requests for help

### Content

The third *Bulletin*-related question in the survey asked what content members valued in the *Bulletin* (Figure 8). According to the responses for Question 23, members do find value in all the current content. More specifically,

**Table 4. Reading preferences for ATTW *Bulletin***

	Always	Usually	Rarely	Never	Total
F/T or P/T undergraduate student	0	0	0	0	0
F/T graduate student	0	4	5	4	13
P/T graduate student	0	0	1	0	1
Graduate teaching assistant or instructor	0	1	5	2	8
Permanent F/T faculty (secondary or post-secondary)	15	29	28	21	93
Permanent P/T faculty (secondary or post-secondary)	1	1	1	1	4
Temporary faculty (secondary or post-secondary)	0	2	4	2	8
F/T professional practitioner	0	0	3	1	4
P/T professional practitioner	0	1	3	1	5
Retired	0	1	0	1	2

## Evaluating the Effectiveness of a Communication Network

83% of the responses rated articles about teaching technical communication as important or very important; 84% of the responses rated news about ATTW as important or very important; 85% of the responses rated announcements about opportunities provided by ATTW as important or very important; 83% rated ATTW conference-related information as important or very important; 92% rated news about developments in the field of technical communication as important or very important; 90% rated calls for papers and conferences as important or very important; and 63% rated information about activities of related organizations as important or very important. This last content category, news about related organizations, received the most unimportant or very unimportant ratings at 37%.

With regard to the *Bulletin*, some interesting themes emerged. A general outcome of the membership survey was to build better relationships between the organization and its members through improved communication. The survey responses have been particularly instructive in highlighting specific ways the *Bulletin* can help do this. According to the survey results, the *Bulletin's* main challenge is to find ways to encourage readership through better and more visible delivery. The full 50% of the survey respondents who said they did not receive the *Bulletin* or were not aware of it points to this challenge. Another issue noted was that mostly those members who were full-time teachers reported reading the *Bulletin* with frequency, suggesting that *Bulletin* editors need to consider ways to make the delivery of the *Bulletin* more accessible for those part-time teachers, practitioners, and graduate students who may have less time and/or opportunity for reading the *Bulletin* (see Table 4).

As a result of these findings, one goal will be to increase the *Bulletin's* visibility and streamline the way it is delivered to members. As a part of these efforts, the *Bulletin* was recently integrated into the organization's redesigned website as a blog feature. This new delivery system allows for more timely posts for time-sensitive news items, such as conference and paper calls, but it retains the ability to deliver the richer content the membership indicated they already place a high value on. These items, such as articles about teaching, will still maintain a semiannual schedule on the blog.

## Website

The ATTW website is potentially one of the main means through which the organization communicates with its members and through which the members of ATTW can communicate and interact with each other. The main purpose of the presurvey version of the website was to channel information from the organization to its members, but it allowed for little or no interaction among ATTW members and constituent groups. In addition to

## Evaluating the Effectiveness of a Communication Network

being a “Web 1.0” phenomenon, the presurvey version of the site was built on an outdated content management system (Plone), which also created numerous and serious security problems for its host, Texas Tech University.

It was clear, even before the survey, that a redesign of the site was needed to improve communication and to facilitate interaction among ATTW’s members. Preliminary conversations about specific functions of the new Website began before the survey was distributed. The general consensus was that, if the new site was to meet the organization’s communication needs, it would have to become more interactive and more social, offering users opportunities not only to view content but also to contribute and share content as well. In designing the questions for the portion of the survey focusing on the website, the team kept in mind the need for more interaction and collaborative contribution of content.

In addition to increasing and improving communication and interaction among members, the new website would bring under one “virtual roof” the communications in the organization and its online membership system. Prior to the redesign, members had to visit the website of TCQ’s publisher Taylor & Francis to subscribe to TCQ and join ATTW. This system, although working reasonably well, did occasionally create miscommunication and confusion for ATTW members. Bringing together as many parts of the membership and renewal process as possible in one online system within the ATTW website is intended to make the process more effective and usable for the users as well as for the organization. Finally, during the preliminary discussions of the website redesign, the idea to integrate the proposal peer review and registration for the ATTW conference was brought up. Such a change in the conference workflow was seen as a part of streamlining communication within the organization.

### **The Survey Results**

The section of the survey that focused on the website redesign included three questions (see Questions 24–26 in Appendix A). Importantly, the list of new website content and features offered to respondents (Question 24 of the survey) included such possibilities as membership self-enrollment and renewal, conference registration, member wikis and blogs, and so on. A select list of the options in Question 24 and a breakdown of the responses are available in Table 5. Roughly half the options were *function-oriented*, involving aspects of the site that enabled users to do something on the Website, and the other half were *content-oriented*, involving aspects of the site that allowed users to find information.

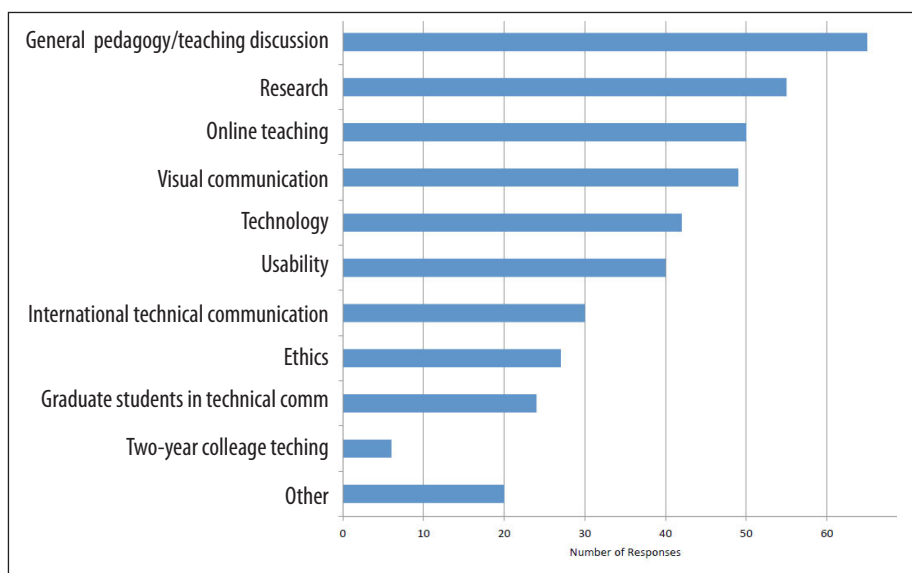
Before the survey was sent, the team predicted that membership self-enrollment and self-renewal would be a priority for many members, and

## Evaluating the Effectiveness of a Communication Network

**Table 5. New Web features desired.**

#	Question	VI	SI	SU	VU	Responses	Mean
1	Membership self-enrollment	74	32	11	7	124	1.60
2	Membership self-renewal	96	23	3	2	124	1.28
3	Listserv self-enrollment	70	35	13	4	122	1.6
4	Conference registration	86	25	7	4	122	1.42
5	Conference audio archive	37	50	20	14	121	2.00
6	Conference video archive	39	50	23	10	122	2.03
7	Online seminars	33	55	24	8	120	2.06
8	TCQ article search	86	27	8	1	122	1.38
9	Website link to TCQ articles	96	21	4	2	123	1.28
10	Online voting for bi-annual elections	41	50	26	5	122	1.96
11	Website search	64	40	16	2	122	1.64
12	RSS feed	16	44	47	15	122	2.50
13	Social media updates	18	34	49	21	122	2.60
14	Member wiki	16	45	44	17	122	2.51
15	Member blogs	14	38	44	25	121	2.66
16	Special interest groups	27	72	22	2	123	1.99

Q- question VI=very interested SI=somewhat interested SU= Somewhat uninterested R=responses



**Figure 9: Interest of members in joining special interest groups (SIGs).**



## Evaluating the Effectiveness of a Communication Network

**Table 6. Length of membership compared to SIG interest.**

	0–3 years	4–10 years	More than 10 years
General pedagogy/teaching discussion	22	27	16
Online teaching	14	24	12
Two-year college teaching	4	2	0
International technical communication	6	14	10
Ethics	11	9	7
Research	23	16	16
Visual communication	16	21	12
Technology	19	17	6
Usability	17	10	10
Graduate students in technical communication	10	9	5
Other	8	7	5
Total	36	40	34

the responses to this question confirmed that prediction. As is evident in Table 5, the top four features on the members’ “wish list” had to do with self-service tasks, such as membership enrollment or renewal. At the same time, content-oriented features such as the ability to listen to ATTW conferences’ audio and video archives were desired by more members than the ability to keep a blog or a wiki on the site.

The second question in the website section (Question 25 in the survey) asked respondents about their interest in joining a special interest group (SIG). Figure 9 represents a summary of the responses. Of particular interest are these data as compared with length of membership in ATTW (see Table 6).

**Table 7. Interest in social media links.**

N	Q	VL	L	UL	VU	Responses	Mean
1	Facebook	27	28	23	47	125	2.72
2	MySpace	0	0	16	108	124	3.87
3	Twitter	8	18	26	72	124	3.31
4	LinkedIn	14	31	31	48	124	2.91
5	Academia.edu	5	19	26	70	120	3.34
6	Ning	1	4	26	89	120	3.69
7	Google Buzz	2	5	22	92	121	3.69

VL=very likely L=likely UL=unlikely VU=very unlikely

## Evaluating the Effectiveness of a Communication Network

**Table 8. Social media preferences compared to length of membership.**

	0–3 years	4–10 years	More than 10 years
Facebook	11 very likely 10 likely	8 very likely 12 likely	8 very likely 6 likely
Linkedin	2 very likely 11 likely	5 very likely 8 likely	7 very likely 12 likely

These data suggest that newer members (those who have been members fewer than four years) are more likely as a group to prefer a SIG about ethics than their more veteran counterparts. Such data encourage consideration of the ways in which the organization might tailor its associations to meet the interests of newer members. Perhaps in line with the name and mission of ATTW, most members who responded to this question expressed an interest in joining a teaching-oriented SIG, followed closely by a research SIG, and SIGs on visual communication, technology, and usability. Notably, there was not much interest in a two-year college SIG, which perhaps reflects the current composition of ATTW's membership, most of which comes from four-year institutions.

The next and final question in the website section of the survey (Question 26) tried to gauge members' interest in the use of social media to communicate with each other and to receive updates from the organization. Table 7 represents the responses.

Facebook was a clear preference here, followed by LinkedIn and Twitter. The other social media outlets offered to members in this question did not gain much traction. Of interest, a cross-comparison of responses show that newer members of ATTW were more interested than long-time members in using Facebook as a means to connect to ATTW. However, newer members were less likely to report a preference for LinkedIn than were more veteran members (see Table 8).

Such data suggest that, although some may assume that newer members are more likely to use and appreciate social media connected to ATTW, that assumption may not hold true for all social media outlets. Program network administrators need to determine which social media outlets are preferred by which segments of the membership before jumping to conclusions about how those preferences will affect the network structure of the organization.

## Conclusion

As a result of the findings of this survey, the Communication Committee, in collaboration with the ATTW Executive Committee, has begun the process of making several changes in communication channels:

## Evaluating the Effectiveness of a Communication Network

- The website is being redesigned to include more interactive features and to be easier to navigate.
- Owing to a new membership feature on the website, current members will be able to renew their memberships and new members will be able to join more easily. A similar feature will be available to process conference fees.
- Committee chairs have been invited to submit materials related to their committee's work directly to the website.
- Some committees are moving to SIG-style membership. These committees have their own pages to publish content and host discussions on the new website.
- The *Bulletin* has been reconfigured to be available on the website and to contain mostly articles and announcements. It will also be offered in a blog format that will allow for participant responses and interactions. Calls for papers, job openings, and other more time-sensitive topics will be featured on the website, enabling editors to post announcements whose due dates will have passed before the publish date of the *Bulletin*.
- The ATTW listserv has been relocated to a new host that promises to provide more reliable and automated service to listserv administrators.

Many of these changes are intended to serve existing members, but the Communication Committee also perceived a need for attracting and recruiting new members from the generation of people completing graduate work in the field. Specifically, the committee is taking the following actions to attract new members and to raise the visibility of ATTW:

- A new Twitter account has been established to communicate developments to members, prospective members, and other individuals interested in technical communication.
- A presence on LinkedIn is being considered as a potential professional benefit to veteran members, to newer members, and to potential members.
- An ATTW Facebook page has been created to allow broader exposure of the organization and to provide a gateway for non-members who may wish to join.

Although the survey indicates that members might not use some of the more recent media channels, the committee sees these efforts as having great possibilities in recruitment and in generally informing the broader public about ATTW developments.

## Evaluating the Effectiveness of a Communication Network

Because communication is central to an organization's functioning and success, before making changes to communication channels, communication decision makers need to go beyond individual impressions to gain broad perspectives from audience members. As a result of the ATTW communication survey, the organization was able to have a solid foundation on which to base future communication practice, both for maintaining channels that were effective for and valued by members and for making changes that could serve members better, thus expanding the reach of the organization's messages and mission. In addition to benefitting ATTW members, the process and the results reported here provide useful insights to other organizations as they strategically plan for appropriate communication channels and practices. Moreover, administrators of other similar networked programs may find such a study both a model for their own network research and useful for ideas on how their membership may use component communication channels. Ultimately, a study such as this suggests that monitoring and recreating network structures in relation to members' views may help to keep an organization thriving in the future.

## Appendix A

### Survey Questions

#### ***Membership Demographics (page 1)***

7. How long have you been a member of ATTW?
  - o 0-3 years
  - o 4-10 years
  - o more than 10 years
8. How did you first learn about ATTW?
  - o Discovered it through a web search
  - o Recommended by a colleague or professor
  - o Heard about it at CCCC
  - o Read advertisement or information in *TCQ*
  - o Heard about it through another organization's listserv or journal
  - o None of the above
9. Have you ever allowed your ATTW membership to lapse?
  - o Yes
  - o No
10. If you answered "yes" to #3, what was your reason for allowing it to lapse? (check all that apply)
  - o Financial constraints
  - o Lack of institutional support
  - o Loss of interest with ATTW group
  - o Problems or frustration with renewal procedures
  - o Changes in career
  - o None of the above

## Evaluating the Effectiveness of a Communication Network

11. What is your age range?
  - 18-30
  - 31-40
  - 41-50
  - 51-60
  - 61+
12. What is your highest academic degree?
  - High school diploma
  - Undergraduate degree
  - Undergraduate certificate
  - Master's degree
  - Master's certificate
  - Doctoral degree
13. If you have earned or are currently earning a doctoral degree, in what specific academic area is your degree?
  - Composition studies (or rhetoric and composition)
  - English education
  - Literature
  - Creative writing
  - Linguistics
  - Rhetoric
  - Technical or professional communication
  - Technical or professional communication and rhetoric
  - None of the above
14. Which of the following employment roles describe your current status: (check all that apply)
  - Full or part-time undergraduate student
  - Full-time graduate student
  - Part-time graduate student
  - Graduate teaching assistant or instructor
  - Permanent full-time faculty (secondary or post-secondary)
  - Permanent part-time faculty (secondary or post-secondary)
  - Temporary faculty (secondary or post-secondary)
  - Full-time professional practitioner
  - Part-time professional practitioner
  - Retired
  - None of the above
15. To what other professional organizations do you belong? (check all that apply)
  - ABC: Association for Business Communication
  - AMWA: American Medical Writers Association
  - ACM-SIG DOC: Special Interest Group on Design of Communication
  - CPTSC: Council for Programs in Technical and Scientific Communication
  - CCC: College Composition and Communication
  - IEEE Professional Communication Society
  - MLA: Modern Language Association
  - NCA: National Communication Association
  - NCTE: National Council of Teachers of English
  - RSA: Rhetoric Society of America
  - STC: Society for Technical Communication
  - WPA: Writing Program Administration
  - None of the above

**If you do not identify as a full-time or part-time teacher, instructor, or professor of technical writing, skip to page 3, Question #17.**

## Evaluating the Effectiveness of a Communication Network

### TEACHING DEMOGRAPHICS for members who are teachers, instructors or professors of technical writing at in post-secondary schools (page 2)

16. What is your current rank or position title?
  - Lecturer
  - Instructor (including graduate teaching assistants and graduate teaching instructors)
  - Assistant Professor
  - Associate Professor
  - Full Professor
  - Other: \_\_\_\_\_
17. How would you describe your institutional status?
  - Already tenured
  - Tenure-track position
  - Non-tenure track position
  - Other: \_\_\_\_\_
18. In what specific area did you receive your highest academic degree?
  - Composition studies or rhetoric and composition
  - English education
  - English studies
  - Linguistics
  - Rhetoric
  - Technical/professional communication
  - Technical/professional communication and/or rhetoric
  - Other: \_\_\_\_\_
19. Which of the basic Carnegie classifications best describes your institution?
  - Secondary school
  - Associate's college
  - Bachelor's college
  - Master's colleges and universities
  - Doctorate-granting universities
  - Special focus institution
  - Tribal college
  - Other: \_\_\_\_\_
20. Categorize the undergraduate program in the department where you currently teach (check all that apply):
  - Service courses
  - English studies program with some technical/professional communication courses
  - Certificate program in technical/professional communication
  - Program with a minor in technical/professional communication
  - Program with a specialization or major for technical communicators
  - Other: \_\_\_\_\_
21. Categorize the master's level program in the department where you currently teach:
  - Do not have a master's program
  - English studies program with concentration in technical/professional communication
  - Certificate program only in technical/professional communication
  - English studies program with concentration in technical/professional communication
  - Program dedicated to technical/professional communication
  - Department dedicated to technical/professional communication
  - Other: \_\_\_\_\_

## Evaluating the Effectiveness of a Communication Network

22. Categorize the doctoral program in the department where you currently teach:
- o Do not have a doctoral program
  - o English studies doctoral program with some technical/professional communication courses
  - o English studies doctoral program with concentration in technical/professional communication and/or rhetoric
  - o Doctoral program dedicated to technical/professional communication and/or rhetoric
  - o Other: \_\_\_\_\_

### **ATTW BENEFITS (page 3)**

23. Of the benefits that ATTW membership offers, how important is each to you?

	ATTW Benefits	Importance to you			
		Very Important	Important	Unimportant	Very unimportant
	TCQ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Annual conference	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resources	Teaching advice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Teaching syllabi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Other teaching materials (links, assignments, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Assessment information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Annual bibliography	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Program profiles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Program contact information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Job announcements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discussions	Technology discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Scholarly issue discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Professional development discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Table continued on the next page...*

## Evaluating the Effectiveness of a Communication Network

News & Announcements	News about developments in the field of technical communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	News from related organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Research announcements (such as collaborative research and grant opportunities)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Publication announcements (such as a list of field-related journals, calls for proposals, and calls for papers)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Scholarship announcements (such as newly published books, journal announcements, journal tables of contents, invitations to other conferences)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organization	General ATTW information (officers, constitution, committee members)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Member contact information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Membership renewal notices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Organizational reports (financial, meeting minutes, committee reports)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## COMMUNICATION CHANNEL PREFERENCES (page 4)

24. Do you currently subscribe to the ATTW listserv?
  - Yes
  - No
25. If you subscribe to the ATTW listserv, how frequently do you read the posts from listserv members?
  - Always
  - Usually
  - Rarely
  - Never
26. How frequently do you read the ATTW Bulletin?
  - Always
  - Usually
  - Rarely
  - Never
27. If you rarely or never read the Bulletin, what are your reasons?
  - Lack of time
  - Lack of interest
  - Do not receive it
  - Not aware of it
  - Other \_\_\_\_\_



## Evaluating the Effectiveness of a Communication Network

28. If you read the Bulletin, rate the importance of the Bulletin's typical topics to you.

Bulletin topics	Importance to you			
	Very Important	Important	Unimportant	Very unimportant
Articles about teaching technical communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
News about ATTW	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Announcements about opportunities provided by ATTW	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ATTW conference-related information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
News about developments in the field of technical communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Calls for papers/proposals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information about activities of related organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

29. Please review the following list of possible new content or technological features for the ATTW Web site and indicate your interest in each feature:

Possible new features	Your interest in these features			
	Very interested	Somewhat interested	Somewhat uninterested	Very uninterested
Membership self-enrollment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Membership self-renewal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Listserv self-enrollment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conference registration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conference audio archive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conference video archive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online seminars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TCQ article search	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Web site link to TCQ articles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online voting for bi-annual election	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Web site search	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
RSS feed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social media updates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Member wiki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Member blogs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Special interest groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Evaluating the Effectiveness of a Communication Network

30. If you are interested in special interest groups, what kinds of special groups would you be interested in joining? (Check all that apply)
- General pedagogy/teaching discussion
  - Online teaching
  - Two-year college teaching
  - International technical communication
  - Ethics
  - Research
  - Visual communication
  - Technology
  - Usability
  - Graduate students in technical communication
  - Other: \_\_\_\_\_

31. Please rate how likely you are to utilize the following social media to communicate with ATTW members and to receive information about the organization.

Social media	Likelihood of use			
	Very Likely	Likely	Unlikely	Very Unlikely
Facebook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
MySpace	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Twitter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LinkedIn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academia.edu	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ning.com	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Google Buzz	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32. When you are deciding whether to read a particular article in TCQ, how important is each of the following characteristics?

Article characteristics	Importance to you as a reader			
	Very important	Important	Unimportant	Very unimportant
Subject matter of the article	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Validity of research methods and manner in which authors have described their methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clarity, style, and comprehensibility of language used in the article	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presence and quality of practical implications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presence and quality of theoretical ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. As a researcher who uses TCQ to find articles that you will use and cite in your own scholarship, how important is each of the following characteristics?

Article characteristics	Importance to you as a researcher			
	Very important	Important	Unimportant	Very unimportant

*Table continued on the next page...*

## Evaluating the Effectiveness of a Communication Network

Subject matter of the article	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Validity of research methods and manner in which authors have described their methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clarity, style, and comprehensibility of language used in the article	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presence and quality of practical implications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presence and quality of theoretical ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

34. As a teacher who uses *TCQ* as a resource for assigned readings in the class you teach, how important is each of the following characteristics?

Article characteristics	Importance to you as a teacher			
	Very important	Important	Unimportant	Very unimportant
Subject matter of the article	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Validity of research methods and manner in which authors have described their methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clarity, style, and comprehensibility of language used in the article	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presence and quality of practical implications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presence and quality of theoretical ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

35. If you have other comments about importance of other *TCQ* article features to your work as a reader, researcher, or teacher, please describe them. <comment box>
36. Currently, *TCQ* offers 5–6 book reviews per year. What is your opinion of the number of book reviews in *TCQ*?
- TCQ* should offer more
  - TCQ* should keep the same number
  - TCQ* should offer fewer
  - No opinion
37. Are there specific books or book types, you'd like to see *TCQ* review more often? If so, please identify them in the comment box. <comment box>
38. *TCQ* occasionally publishes review essays that evaluate and discuss three or more recently published scholarly books. What is your opinion on these review essays?
- TCQ* should offer more
  - TCQ* should keep the same number
  - TCQ* should offer fewer
  - No opinion
39. If there are specific topics you would like to see review essays cover, please indicate them in the space below.

Comment:

## Evaluating the Effectiveness of a Communication Network

40. When you are looking for venues in which to publish your own research, how important is each of the following factors?

Publication venue factor	Your interest in these features			
	Very important	Important	Unimportant	Very unimportant
Acceptance rate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electronic publication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Print publication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relevance of journal to research topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Journal Impact Factor in the ISI rating system	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Readership/Circulation of journal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turnaround time from submission to decision letter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Turnaround time from date of acceptance to date of appearance in print	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Special issue topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

41. How interested would you be in special issues on the following topics?

Special issue topics	Your interest in these topics			
	Very interested	Somewhat interested	Somewhat uninterested	Very uninterested
New technologies and media	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pedagogy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Historical studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Program assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rhetoric in specific fields (science, medical, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

42. If you have other special topic ideas, please describe them here. <comment box>
43. TCQ currently accepts manuscripts in three broadly defined categories, 1) original research articles, 2) methodologies & approaches, and 3) perspectives. (For descriptions of each category, see <http://tcqwiki.pbworks.com/TYPES-OF-SUBMISSIONS>).

Submission categories	Effectiveness			
	Very effective	Effective	Ineffective	Very ineffective
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Table continued on the next page...*

## Evaluating the Effectiveness of a Communication Network

How effectively do these submission categories meet your current needs as a potential author for TCQ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How effectively do these submission categories meet your needs as a reader of TCQ?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

44. What other issues about ATTW communication channels would you like to share with the leadership? <comment box>
45. You have completed the ATTW survey. Thank you for participating.

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# The Role of Historical Study in Technical Communication Curricula

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**Abstract.** Historical study within academic disciplines is often used to invest students in their own futures and to create a sense of community among practitioners. As technical communication programs continue to develop, program designers must make decisions about how much historical study should be included. The current study examines information about how much value teachers of technical communication place upon historical study and the reasons for its inclusion in or exclusion from academic programs. Survey results show that attention given to historical study varies by program but that a few resources dominate study within many programs. The authors make recommendations for integrating historical study into technical communication curricula and offer an outline for a technical communication history course.

**Keywords.** history of technical communication, teaching of technical communication, study of history, survey, professional issues

**T**echnical communication programs are frequently forced to make curricular decisions based on a variety of needs, wants, and desires. Students, employers, and administrators often have specific desires concerning student training, and those desires, taken as a whole, may outpace the available number of credit hours within any given degree program. Courses covering topics such as technical communication history are often not what students, employers, or administrators have in mind when they think of highly trained graduates who are “business ready.” Translated, the phrase “business-ready” usually refers to graduates trained in using the software of the moment and skilled in aiding production of various types.

Whether students need to be more skilled in these areas than they are in theoretical and historical concepts depends on whom you ask. Many academics see a value in studying theory and history, but these subjects often have to be justified to university outsiders. Even among academics, historical study is seldom given curricular priority: there are few university courses devoted to technical communication history or technical communication programs that weave historical study throughout their courses. In technical communication journals, historical studies have proliferated since 1990 (see, for example, the items listed in Rivers, 1999; and Tebeaux & Moran, 2011), but these studies have not found a firm place in our teaching (Todd, 2003).

We believe that the study of the history of technical communication is justified in academic programs, either as a stand-alone course or units within several courses in a curriculum. Students and faculty members alike need a sense of professional identity and purpose that cannot be derived from mere mastery of technical skills. Members of the profession require an understanding of the historical trends that gave rise to the practice, profession, and academic discipline to fully appreciate their value. Academics are fond of saying that theory is an integral part of technical communication study, but historical study moves even beyond the realm of knowing why we do things. It contributes to the profession's development of a shared historical consciousness: "the emergence of a particular collective, historical consciousness—in this case a professional consciousness—and the emergence of historical narratives that make a case for the legitimacy of the identity by which such consciousness is signified, are reciprocal" (Savage, 1999, p. 374).

This article makes a case for the integration of historical study into technical communication curricula. Although the Society for Technical Communication Technical Communication Body of Knowledge (STC TCBOK) includes not only the history of technical communication but also the histories of rhetoric and technology under "History," we use "historical study of technical communication" to mean the study of the history of technical communication as a practice, profession, and discipline. The practice of technical communication is ancient, no doubt predating the earliest written records. The profession of technical communication is relatively recent, emerging during and immediately after World War II. Although universities were offering courses in technical writing in the early 1900s, the academic discipline of technical communication began with the creation of the first university degree programs in technical writing in the 1950s.

We have divided our discussion into five main parts. First, we provide a review of the literature on our topic from the major journals and confer-



ence proceedings in our field. Second, we present and analyze the results of a 2007 survey of program administrators about the role of historical studies in their programs and the value of historical studies to teachers, students, and practitioners. Third, we examine online syllabi and course descriptions for evidence of current use of history in technical communication curricula. Fourth, we make recommendations for further integrating historical studies into technical communication curricula. Lastly, to illustrate how a stand-alone course might be structured, we describe a course in the history of technical communication at our university. We hope that our article will contribute to ongoing conversations about this topic and will inspire more teachers of technical communication to make pedagogical use of the growing body of literature about the history of technical communication.

## **Literature about Historical Study in Technical Communication**

Despite any misgivings that university outsiders might have, technical communication scholars have asserted the value of historical study. For example, in arguing for a more humanistic approach to technical communication, Russell Rutter (1991) claimed that, "One part of a broader, more liberal approach to technical communication is acquiring perspective that follows study of the profession's history and development" (p. 143). Rutter believed that historical study is necessary to retain in current practice what has been good about previous practice, both ethically and practically. R. John Brockmann (1998) made a similar argument when stating that, "in a profession that gets things done, the payoff for technical communicators is how to make decisions based on a perspective offered by historical analogies" (p. 391). Both Rutter and Brockmann viewed historical study as a means to improve current practice.

But if we assume that historical study is of practical value to current practitioners, is it necessarily of value to teaching and research? Jennifer Connor (1991) made a case for historical studies as a part of teaching:

In individual technical communication courses, they may help orient humanities students to the different cognitive approach required; at the same time, they can show technical students the important role that effective communication has always played in their fields. In an academic program devoted to technical communication, historical studies (including, perhaps, readings in the history of science, technology, and information) seem appropriate ways to examine in-depth the various issues identified in the field.

In short, the history of technical communication can be a “medium of education,” used to increase understanding and develop judgment. (p. 5)

This type of perspective can be used to instill in students, especially in new students, a sense of professional identity, and to clear up mistaken assumptions, such as the assumption that technical communication began after World War II (Brockmann, 1988). In fact, the practice of technical communication has a long and storied tradition that begins in ancient history or even prehistoric times. And there is some evidence (beyond what many of us suspect instinctively) that students lack this sense of historical identity. Roger Masse and Patrick Kelley (1977) noted many years ago that technical writing students at New Mexico State University lacked a sense of historical perspective concerning scientific and technical writing. In response, they assigned readings ranging from Hippocrates and Harvey to Copernicus and Kepler.

Carol Lipson (1982) lamented the glaring gap in our collective body of knowledge concerning technical communication history, stating that “I feel strongly that future teachers and scholars in the field need a background in the history and theory of our field, and books should be available to help them acquire it” (p. 5). Similarly, Robert Johnson (1994) called for “more broad-based implementation of theoretically and historically based curricula in technical and scientific communication programs” (p. 48). In a later article, Johnson (1998) reiterated his belief that technical communication programs would be paid more serious attention within academia if they were able to produce more historical research. Schnakenberg (1998) pointed out that staying current with recent technologies is “an endless task with relatively short-term benefits” (p. 65), while teaching the evolution of communication technologies and strategies produces more long-term, problem-solving skills within students.

Seemingly in response to these types of calls for more focus on history, studies into the history of technical communication have become prominent in recent years. Gerald Savage (1999) noted that “although we are in the early stages of historicizing technical communication, the relatively sudden appearance of so many ambitious historical studies may hold the greatest promise for the shaping of a professional consciousness in the field of technical communication” (p. 375). But this promise does not seem to be a sufficient justification in itself for publishing historical research. The authors of most studies continue to follow Brockmann’s (1998) recommendation that “if the field of technical communication is instrumental communication, communication that gets things accomplished, so

must its history” (p. 386). Max Loges (2011) suggested that his study of a Civil War general’s verbal abuse of his underlings may help workplace professionals “realize that cursing, threatening, and belittling are not effective measures for improving morale or efficiency” (p. 170). Elizabeth Tebeau (2010) challenged readers of her study to use history to find ways to produce more “effective tractor operator manuals and warnings” (p. 4).

There have been other attempts to justify historical study in instrumental terms. Edward Malone (2007), for example, identified four important uses of historical study under the headings of invention, precedent, distance, and context. Technical communicators can call upon history for inspiration and ideas, precedents to defend choices and proposed solutions, distance to gain better perspective, and context for understanding the evolution of current practices.

This literature hardly represents the complete body of ruminations about the value and place of historical study in technical communication, but the sources are representative of the attitudes concerning historical study in technical communication’s body of knowledge. History is seen as a relevant course of study for practitioners and academics alike, and one is hard pressed to find any direct challenge to this notion within the literature, despite our well-documented struggles to stay current with the technological pace of our times. Still, we wondered how these principles were being applied within technical communication programs, and to what extent this historical sentiment was being put into practice pedagogically.

## **Survey of Program Administrators<sup>1</sup>**

In 2007, the Council for Programs in Technical and Scientific Communication (CPTSC) funded a survey of technical communication program administrators in the United States to determine the role of historical studies in technical communication curricula. Survey Methods ([surveymethods.com](http://surveymethods.com)) was selected to host the survey, which was launched on September 16, 2007. Invitations were sent to 72 people who had been identified in either the STC Academic Database or the CPTSC Programs List as program administrators or points of contact for their programs. Several programs listed by STC and/or CPTSC were eliminated because they did not provide valid contact information. Our program at Missouri University of Science and Technology (Missouri S&T) was also excluded from the study.

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<sup>1</sup> A version of part of this section was published in the 2007 CPTSC conference proceedings (see Malone & Bryan, 2007). Former Missouri S & T graduate student Tara Bryan (now Tara Bryan de Cañellas) assisted with the design and implementation of the original survey.

Each invitation contained a unique link that took the recipient directly to the Web survey. Although the names of the recipients and programs remain confidential, they were not anonymous. It was possible to associate each e-mail address with a completed survey and to eliminate multiple surveys originating from the same email link. However, it was not possible to ensure that the person who completed the survey was actually the person listed in the STC database or CPTSC list as the program director or point of contact. At least one recipient of the invitation forwarded it to a colleague, who in turn completed the survey.

Before beginning the survey, each respondent was told that we were trying to determine the role (if any) of historical studies in technical communication curricula at colleges and universities in the United States. They were also directed to interpret the term *history of technical communication* to mean not only the history of the practice of technical communication but also the history of the technical communication profession and the history of the teaching of technical communication.

The 72 invitations mailed on September 16 yielded 33 fully completed surveys and 1 partially completed survey—a return rate of 47%. The partially completed survey is not reflected in the data or analysis that follows.

## **Survey Results**

The 33 people who responded to the September 16, 2007, invitation indicated that their programs offer one or more of the following degrees in technical communication or a closely related field:

Degrees Offered	Number of Programs Responding
BA	21
BS	9
MS	14
PhD	16
Other	13

The “other” category included undergraduate minors and graduate certificates. Examples of closely related fields are professional writing, science/scientific writing, English with a technical communication emphasis, rhetoric (or rhetoric and composition), and technical journalism.

Eighteen of the 33 respondents (55%) described themselves as the “official” directors of their programs, while four (12%) described themselves as the “unofficial” directors of their program. The remaining 11 respondents (33%) are assumed to be neither the official nor unofficial directors of their programs.

According to the responses, most programs are providing students with at least some exposure to the history of technical communication. Twenty-four of the 33 respondents (73%) said that their students receive "some" curriculum-based exposure to technical communication history; five said "much exposure"; and four said "no exposure."

Of the programs that answered "some" or "much" (29 of 33 or 88%), almost all said that they provide this exposure either "in a unit within a course devoted to a broader topic" (24 of 29 or 83%) or throughout their curricula (3 of 29 or 10%). Only 2 respondents (7%) selected "in an elective course devoted entirely to the history of technical communication," and no respondents selected "in a required course devoted entirely to the history of technical communication."

In fact, 23 of the 29 respondents (79%) said their programs "have never offered a course devoted entirely to the history of technical communication," while 4 said their programs have offered such a course at least once. Only 2 said their programs offer such a course on a regular basis.

Those who said their programs provide some or much exposure to technical communication history (29 of 33 or 88%) were asked why this exposure is provided. Twenty-seven people answered this question. Respondents generally believed that historical study provides context for both practice and the profession, provides precedents from the past for current problems, and will move technical communication toward recognition as a profession (see Appendix A).

The four people (4 of 33 or 12%) who responded that students do not receive any curriculum-based exposure to technical communication history explained that their programs have applied curricula with no time or space for the study of history. These programs seemed mostly concerned with providing employment skills (see Appendix B).

In a related question, all 33 respondents were asked what benefits (if any) a technical communication student derives from studying the history of technical communication. Eight respondents skipped this question, but 25 answered it. Respondents believed that studying history prepares students for the future, helps to refute the notion that technical communication began after WWII, and helps to integrate complex social, political, and economic factors into student strategies (see Appendix C).

Most respondents (97%) believed that historical studies are useful to practitioners, but they were divided about how useful these studies are. Eighteen of the 33 respondents (55%) said that historical studies are very useful to practitioners, while 14 respondents (42%) said they are somewhat useful to practitioners. Only 1 respondent felt that historical studies are not useful to practitioners. Fourteen respondents offered explanatory

comments. Those who believe in the usefulness of historical education for practitioners pointed to its ability to create a sense of self worth in practitioners, its power to prevent us from repeating mistakes of the past, and its inherent ability to provide practical examples within larger ethical contexts. The lone naysayer did not condemn historical study, but pointed out that students looking for job-related skills or promotion are often frustrated by theoretical courses (see Appendix D).

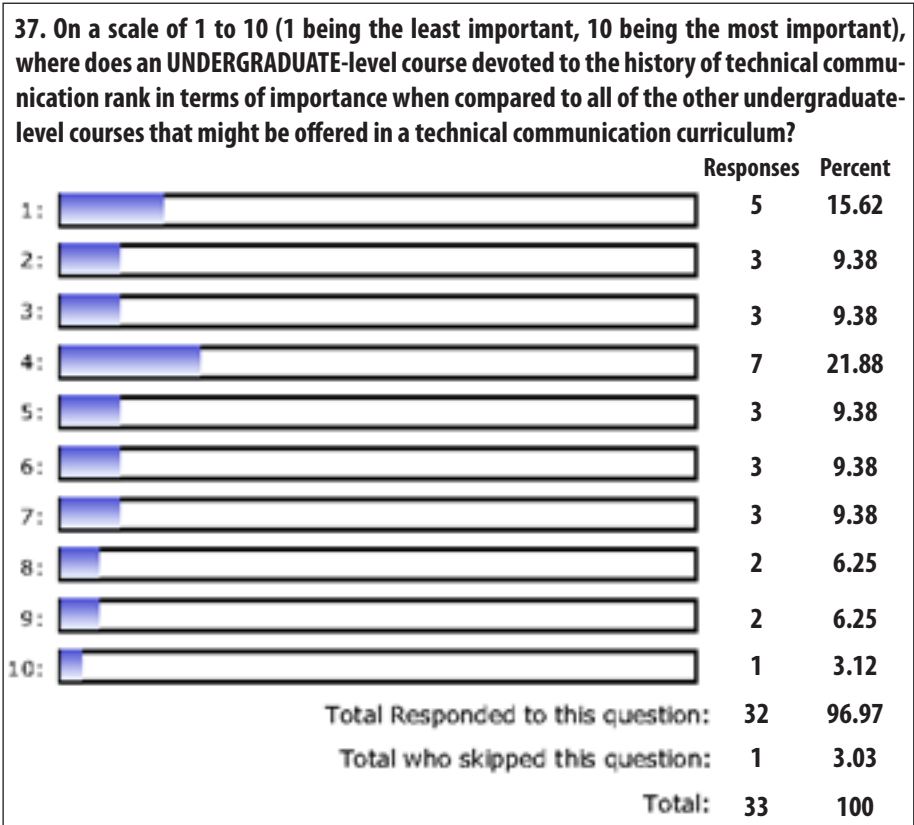
Most respondents (31 of 33 or 94%) also believed that the study of technical communication history was important in the training of technical communication teachers. Twenty-two respondents (71%) said it was very important, while 9 respondents (29%) said it was somewhat important. Only 2 respondents (2 of 33 or 6%) felt that it was unimportant. Only 7 respondents offered explanatory comments. Those supporting historical study for technical communication teachers felt that teaching practice should not be isolated from history and theory, that students need well-rounded instructors, and that student research without historical instruction is often narrowly focused (see Appendix E).

The respondents were divided about whether a technical communication program should create a course devoted entirely to the history of technical communication. Nineteen of the 33 respondents (58%) said that a technical communication program should not offer such a course on a regular basis, while 14 respondents (42%) answered that a technical communication program should offer such a course on a regular basis. Eighteen respondents offered explanatory comments. Those respondents opposed to a course focused on technical communication history cite already cramped degree requirements and the possibility of integrating historical studies into existing courses. Those in favor felt that PhD programs and programs devoted entirely to technical communication should offer the course to better prepare majors for the future (see Appendix F).

There were additional questions on the survey. Two of those questions focused on the relative importance of a stand-alone history course in a technical communication curriculum at the undergraduate and graduate levels. The responses are represented in the following bar graphs (see Figures 1–2). Although the responses indicate divergent views among program directors, in general the respondents felt that a stand-alone course was more important at the graduate level than the undergraduate level.

## **Analysis of Results**

Some survey results are more expected than others. The fact that a high percentage of respondents feel that technical communication history



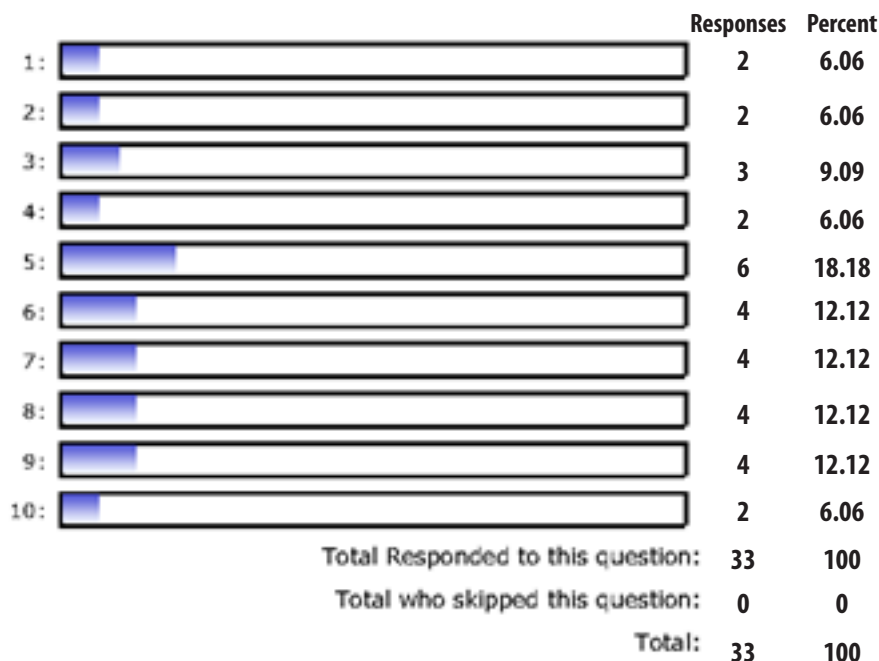
**Figure 1. Relative importance of an undergraduate-level course in technical communication history**

study is worthwhile seems expected, given the largely supportive literature base that exists. In addition, a large percentage of respondents report that historical study is included within their curricula, though usually as part of courses on other subjects, such as ethics or foundations. Very few programs currently offer a course devoted entirely to historical study. This finding is somewhat surprising, given the state of the literature in the field, and the comments from survey respondents. We might think that this enthusiasm over historical study would have led to more stand-alone history courses. Why has it not? Three distinct problem areas present themselves from the survey data.

**The Role of History in a Curriculum**

First, most respondents seem to believe that the historical study currently in place within other courses is sufficient, or that they are unable to offer an entire course on the topic for various reasons. Survey responses reveal

**37. On a scale of 1 to 10 (1 being the least important, 10 being the most important), where does a GRADUATE-level course devoted to the history of technical communication rank in terms of importance when compared to all of the other graduate-level courses that might be offered in a technical communication curriculum?**



**Figure 2. Relative importance of a graduate-level course in technical communication history**

that 79% have never offered a technical communication history course and 58% do not believe in offering such a course. Only two programs responding to the survey reported that they routinely offer a history course. Some reasons for the overall reluctance among faculty members to offer a history course are apparent from the survey comments. Respondents noted that fitting an entire course within the existing curriculum would be problematic because of credit-hour constraints. Many academics will recognize this situation both within their own discipline and without. Most of us teach courses designed for nonmajors from science, engineering, or agricultural fields. We routinely hear from colleagues in those disciplines that they would like to see their students become better communicators. But when we try to practically implicate more coursework into already crowded degree programs, things become more difficult.

Therefore, more research seems necessary to determine both technical communication history's place within academia and how best to imple-



ment historical study. Although the 2007 CPTSC survey and the literature in the field are largely supportive of historical study, the question of historical study within technical communication is by no means resolved. Questions about what qualifies as historical research and study remain. For example, we suspect that not everyone would regard the study of a company's communication practices over the last 10 years as a historical study. Should case studies of recent events, such as the communication failures during the Asian tsunami or Hurricane Katrina, be regarded as historical studies? (Some critics do regard them as such; for example, see Rivers, 1994, pp. 41-44; Kynell & Moran, 1999, pp. 8-9; Malone, 2007, p. 336.) What methods should distinguish historical research from other types of research? (Several critics have proposed methods for and/or approaches to historical research in technical communication: see Tebeaux and Killingsworth, 1992, p. 27; Connor, 1993, p. 212; Dillon, 1997, p. 72; Battalio, 2002, p. 23)

Also, we must question how valued historical study is outside academia. Most respondents (97%) agreed that historical study is either very useful or somewhat useful to practitioners, but do practitioners also believe that technical communication history is useful? How do practitioners actually use technical communication history? A survey of current practitioners might help us to answer these questions. A common response among the academics surveyed was that knowledge of history can help students (i.e., future practitioners) understand the present and predict the future. People in our profession are by nature prognosticators (Wright et al., 2011). Several respondents also noted that history can be used as a source of models for emulation, as evidence to support arguments, and even as vicarious experiences. (For discussions of the uses of history in technical communication, see Connor, 1991, p. 5; Brockmann, 1998, pp. 385-392; and Malone, 2007, pp. 342-344, among others.) But to this point, our understanding of exactly how those experiences are applied remains vague. An understanding of the actual and potential uses of history in the technical communication workplace might help us make better decisions about the role of historical studies in technical communication curricula.

Within academia, there is an ever-present pressure to maintain technical skill sets and practical applications that, on the surface at least, appear more directly tied to industry. Students are particularly aware of technical skills, especially if they plan to move into industry (rather than academia) upon completion of their degree. Comments from the 2007 survey indicating that credit hours "must address the skills and knowledge for creating technical documents," or that programs were originally introduced to

“provide viable career options,” show that administrators and faculty have taken notice. So if we are to add a course in historical study to an existing graduate or undergraduate program, there is a sense that “something has to go.” This belief may contribute to the fact that 93% of respondents report that students are receiving their historical education as part of an existing course such as pedagogy or foundations or from information dispersed throughout a curriculum.

However, we believe that administrators and members of our discipline are wrong to assume that students’ desires (as well as some employers’ desires for them) to become ever more technically literate will necessarily serve them better in the future. As authors have pointed out, problem solving and humanistic skill sets derived from historical study should be at least as important to students’ long-term productivity as technical skills that come and go quickly. Furthermore, electives are common within technical communication programs, and even if a history course cannot be required, many students are likely to take advantage of an elective history course if they are aware of its implications for their future (presumably beyond a simple survey of dates and names).

### **Resource Constraints**

A second reason for the lack of historical course proliferation appears to be a simple lack of resources. Teaching our history as a stand-alone course is the most divisive question within the survey, which shows 58% against stand-alone courses and 42% in favor of them. Respondents point to the fact that many programs have a limited number of faculty to cover numerous courses on a variety of subjects. Given this state of affairs, technical communication history courses may not yet have the critical mass needed to justify pulling instructor resources away from other subjects. Respondents against the inclusion of a full course clearly have a hard time seeing how that course would be justified under these circumstances, saying, “There are simply too many other areas to cover” and “Constraints of curriculum and faculty time make this nearly impossible.” Many of us can certainly empathize with this state of affairs, and there is no doubt truth to these comments.

There is clear disagreement among academics on this subject, though it is not the only subject in need of address. In addition to resolving the question of whether technical communication history deserves its own course designation, we must address other issues. For example, where should the study of technical communication history begin—in ancient cultures, or after the emergence of modern English, or after World War

II? Should faculty in US programs focus on American texts, authors, and practices? (Several critics believe so; see Todd, 2003, p. 66, for example.) The answers to these questions are important because the way history is conceived and defined affects the way it is valued and studied.

Because 58% of the program administrators surveyed in 2007 do not believe that technical communication programs should offer an entire course about technical communication history on a regular basis—despite the fact that 97% of respondents rank historical knowledge as “useful” for practitioners—we might ask ourselves how we make decisions about which subjects should be given entire courses within our curricula. We have heard colleagues argue that research methods should be taught throughout a technical communication curriculum rather than as a separate course, but many programs offer a separate course in research methods. Should subjects such as international technical communication, Web authoring, and even technical editing be taught across the technical communication curriculum rather than as separate courses? Ironically, these types of curricular decisions are often based on historical precedents and contemporary examples rather than other forms of research and analysis.

### ***Training Instructors***

A third factor that may be in play is that few technical communication academics are qualified to teach a history course. Although 97% of those we surveyed believe that historical education is useful and 94% believe that historical training is important to technical communication teachers, the way we should act upon this consensus is pedagogically unclear. This state of affairs has resulted in few stand-alone history courses being created; in fact, only two programs offered such a course regularly among our sample. As we have seen, our own ranks have been bemoaning the lack of historical texts, research, and training for some time. If most academics have not been in the habit of reading or conducting historical research, we can hardly expect them to teach it or to pass on its value to students. It may be that most faculty, though they see a need for historical studies, are doing the best they can to fill that need, without ever really feeling qualified to take on a full course or to make historical studies a focus of existing courses. In fact, while 71% of our respondents rated training instructors to teach the history of technical communication as “very important,” few seem to be doing so, at least by offering a course on the subject. This is in spite of comments such as, “I’m sorry to say that I still see too many teachers who see practice as isolated from both history and theory...” and “If teachers don’t have adequate awareness of the history of tech com, we

can't very well expect practitioners to develop a sense of tech com as a historically- situated profession and practice."

Therefore, if we intend to promote historical studies within the discipline, we must be willing to train academics (at least at the PhD level) to teach our history. Some respondents seem to support this notion, saying, "We know embarrassingly little about our past" and "To cope with the present and to plan for the future, students need to understand the past."

However, incorporating these sentiments into our collective curricula may not require preparing future academics to teach semester-length history courses. We may be able to train instructors to better cover historical topics within existing courses. Yet this leads to another question: If historical topics are discussed as part of existing courses, how are we training instructors to approach the topic (if at all)? And if we are indeed including historical study within existing courses, how is that being accomplished? Are specific units within courses being devoted to history, or is historical education taking the form of anecdotal stories passed on from instructor to student?

## **Evidence from Online Course Catalogs and Syllabi**

Answering these questions will undoubtedly require further research, but we sought to discover what we could by consulting online materials that describe current or recent technical communication course offerings. We were interested in finding course descriptions and syllabi that included references to history or historical study, especially graduate courses that offered some insight into what is being done to prepare future instructors to incorporate technical communication history into curricula.

In October 2011, we used Google to search university websites for catalog descriptions and online syllabi that mention the history of technical communication. Our search terms were "syllabus" and "history of technical communication" or "syllabus," "history," and "technical communication." We did find some evidence that technical communication instructors are incorporating history into existing courses. The search results are far from exhaustive, but they do offer some insight into what seems to be typical within programs. In Table 1, we identify some courses that mention historical study in their catalog descriptions or learning objectives.

Clearly, history has been—and is being—incorporated into graduate courses at some of our most prominent institutions, but many of these courses are of the foundations variety, and the readings about history are relatively uniform because instructors are often using the same anthologies, especially *Central Works in Technical Communication* (Johnson-Eilola &

**Table 1: Representative samples from online course descriptions**

Institution	Course	Year	Description
Michigan Tech University	HU 6080 Seminar in Technical Communication	2008	"May include study of the theoretical backgrounds of technical communication, the history of technical communication, rhetoric of technical communication, technical communication program administration, and technical communication pedagogy (Graduate, 2008, p. 138)
Auburn University	ENGL 7010 Technical and Professional Communication: Issues and Approaches	2009	An "introduction to the discipline and profession of technical and professional communication" that "covers the historical and current practices in technical and professional communication; the major forms, modes, and genres of technical and professional communication; and also the chief stylistic and rhetorical features of technical and professional communication" ("MTPC," 2009).
Texas Tech University	English 5371 Foundations of Technical Communication	Fall 2009	Designed to "introduce graduate students in TCR to the scholarly study of technical communication." Among the questions it sought to answer in 2009 was "What is the history of technical communication?" ("Foundations," 2009).
Texas A&M University-Corpus Christi	English 5364 Technical Writing Theory and Pedagogy	Fall 2009	One of the goals of this course was to "explore the history and theoretical foundations for the field of technical writing/communication" ("Syllabus," 2009).
University of Minnesota	WRIT 5001 Introduction to Graduate Studies in Scientific & Technical Communication	2011	One of the five courses required for the online graduate certificate in technical communication, WRIT 5001 foregrounds history in its catalog description: "History of technical communication. Different audiences, purposes, genres, and emerging trends. International/intercultural issues. Students participate within a community of technical communication professionals" ("Technical," 2011).

Selber, 2004). A quick survey of online syllabi shows that many courses are limited in historical study to a standard collection of articles. Table 2 shows a sample of those courses.

Two courses at Missouri Western State University included a broader range of historical readings. In Fall 2011, the instructor of ETC 600 Introduction to Graduate Studies in Technical Communication devoted a class period to the "History of the Field" and used readings by Russell Rutter (2004), Elizabeth Tebeaux (1999), and two chapters from Teresa Kynell-Hunt & Gerald Savage (2003) ("English/Technical," 2011). In another course,

**Table 2. Sample of technical communication courses with class periods devoted to historical study**

Institution	Course	Semester/Year	Length of Study	Included Readings
West Virginia University	English 605 Professional Writing Theory & Research	Fall 2008	One class period	Rutter (2004) Connors (2004) Durack (2004) ("English 605," 2008)
Texas A&M University-Corpus Christi	English 5364 Technical Writing Theory and Pedagogy	Fall 2009	Two class periods	Rutter (2004) Miller (2004) Connors (2004) Durack (2004) ("Syllabus," 2009)
East Carolina University	English 8780 Theory of Professional Communication	Spring 2010	Three weeks	Rutter (2004) Miller (2004) Connors (2004) Durack (2004) ("ENGL 8780," 2010)
Minnesota State University at Mankato	English 679 Rhetorical Theory Applied to Technical Documents	Spring 2010	Unknown	Rutter (2004) Miller (2004) Durack (2004) Tillery (2005) ("Syllabus," 2010)
New Mexico State University	English 572 Technical & Professional Communication Theory & Pedagogy	Spring 2010	One class period	Connors (2004) Durack (2004) ("ENG 572," 2010)

ETC 421 Worlds of Technical Communication, the same instructor devoted three class periods to technical communication history and used Brockmann (1996), "Geoffrey Chaucer" (2004), Robert Connors (1982), Matthew Honan (n.d.), Teresa Kynell (1999), Frederick O'Hara (2001), Katherine Staples (1999), Elizabeth Tebeaux (1999), & Mark Zachary (2001) ("ETC 421," 2010). The reading selections in these two courses suggest the pedagogical possibilities of tapping into the rich body of historical scholarship that exists in technical communication.

One possible explanation for the lack of diversity seen in most courses we located is adherence to a boiler plate approach to selecting sources for historical study. It seems reasonable to expect that the dominant four or five sources are the same historical sources that current instructors were exposed to in their graduate programs. But there are many more sources available to instructors and additional methods that can be employed to bolster historical study in technical communication. Our recommendations will point out some of those sources and methods.

## **Recommendations**

At this point, we would like to suggest several ways to increase students' awareness and appreciation of history in technical communication courses. We are not the first teachers of technical communication to do so (see, in particular, Schnakenberg, 1998; and Todd, 2003), and we realize that our efforts here will not end debates about how much historical content is appropriate within technical communication degree programs. However, a lack of historical resources, including accessible primary sources and substantial secondary sources, can no longer be used as an excuse for ignoring our history. Perhaps a middle ground can be reached that will improve students' understanding without pushing already strained resources to the breaking point. A present solution might be to incorporate more of the available resources into more courses or to offer more than a few class periods of historical study within foundations courses. Toward this end, we recommend the following strategies:

1. Discuss the importance of historical study with students
2. Pay more attention to history in our textbooks.
3. Determine what history students should study.
4. Develop historical assignments and activities.

### **Discuss the Importance of Historical Study with Students**

The portal map of the STC TCBOK is a tree-like structure with many branches. On the "About Technical Communication" branch, history is coordinate with the following topics: definition, career paths, value proposition, ethics, professional organizations, and future of technical communication. It is also coordinate with the following topics on other branches: business knowledge, using tools and technology to produce technical content, assessing and using research methods, and applying theory to improve practice. "History," in this case, refers not only to the history of technical communication, but also the history of rhetoric and the history of technology. Whether the organization of the tree means that history is as important as research methods, or theory, or even ethics in technical communication's body of knowledge is unclear. It is safe to say, though, that history occupies a position of prominence on the tree. Of course, the STC TCBOK is a work in progress, but it holds great promise (STC, 2011).

If indeed there is general agreement that historical study is important to the discipline, as our survey seemed to suggest, then teachers of technical communication should help students understand the value of that kind of study. One way to do this is to discuss history's place in technical com-

munication's body of knowledge, perhaps in the context of a larger discussion about the role of a specialized body of knowledge in the definition of a profession. Vannevar Bush (1957) once wrote of a profession: "First and foremost, its members are the possessors and custodians of a special field of knowledge, acquired by long, assiduous study, and they are respected and accorded privileges because of that fact" (p. 50). If students conclude that history is an important part of a profession's body of knowledge, then they may be more receptive to its conspicuous presence in a curriculum.

Another way to broach the question of history's importance is to give students a sense of the sheer quantity of publications in this area—perhaps by using one of several bibliographies (e.g., Rivers, 1999; Tebeaux & Moran, 2011)—and to invite them to speculate about the purpose and implications of this scholarly activity. Not all the answers will lead to the conclusion that historical study is important, of course, but the ensuing discussions may provoke the kinds of questions we are raising in this article. Focusing students' critical thinking skills on the value of historical study as a scholarly pursuit and a curricular issue has residual benefits. They may feel more connected to our discipline as holders of the type of specialized knowledge that Bush (1957) referred to. In addition, an expanded view of our history will help to promote a more stable historical body of knowledge among students, thus further solidifying our collective consciousness as a discipline. Finally, historical study can only help students' research skills, perhaps leading to more historical publication and better recognition within academia (Johnson, 1998).

Other professions have strong historical consciousnesses, which are manifested in well-managed archives and museums (e.g., US Army, 2012; Smithsonian, 2012), active oral history projects (e.g., IEEE, 2012; WPCF, 2012; SWE, 2012), and even virtual halls of fame<sup>2</sup> (e.g., Fisher, 2012; ASE, 2012; ASCE, 2012). The notable practitioners featured in these projects have become the historical faces of their professions. To our knowledge, there are no oral history projects, museums, or halls of fame in technical communication. The absence of these sites and activities may be a symptom of our profession's relative immaturity, if not its recency (now 60+ years old), and its recurring identity problems. The fact that well-established, mature professions seem to value history in ways that we do

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<sup>2</sup> The New Jersey Literary Hall of Fame includes technical writers (Pristin, 1995). It was started by Herman A. Estrin, the now-deceased English professor at New Jersey Institute of Technology (NJIT) and one of the founders of the Association of Teachers of Technical Writing (ATTW) as well as the Committee on Technical and Scientific Communication of the National Council of Teachers of English (NCTE) (Cunningham, 2004; Kynell-Hunt & Tebeaux, 2009, pp. 120–121).



not suggest the importance of history in creating “an enhanced sense of self-identity and tradition,” two “prerequisites for the establishment and continuance of any profession” (Shirk, 2000, p. 6). Thus, it may be in the best interest of “all technical communicators to become informed concerning the origins and history of their profession” (Shirk, 2000, p. 1). Students can and should participate in these kinds of discussions.

### **Pay More Attention to History in Our Textbooks**

Instructors seem to be relying heavily on anthologies such as *Central Works in Technical Communication* (Johnson-Eilola & Selber, 2004) and *Teaching Technical Communication* (Dubinsky, 2004) for readings about the history of technical communication. These anthologies cover a broad range of topics and are appropriate for foundations and pedagogy courses. Other textbooks are probably influencing how—and even whether—historical perspectives are being taught in our courses. For example, Laura Gurak and Mary Lay’s *Research in Technical Communication* (2002) includes a chapter titled “Historical Methods in Technical Communication”; however, a more recent research methods textbook by Michael Hughes and George Hayhoe (2007) does not discuss historical research. Karen Schriver’s *Dynamics in Document Design* (1997) devotes a 137-page chapter to the “Evolution of the Field: Contextual Dynamics,” including a 46-page timeline. This chapter should stand as an inspiration, if not a model, for other textbook writers. We wonder, though, how many instructors use this mammoth historical chapter or even the timeline in courses about document design.

Technical communication textbooks for lower- and upper-level university courses should include a strong chapter about the history of the subject, and instructors should assign it early in the semester to provide context for the study and activities that follow. A survey of definitions of technical writing/technical communication from the 1950s to the present might shed some light on how the discipline’s view of itself has changed over the decades. A similar historical survey of relevant job ads in major newspapers might also be instructive. Students would see, for example, that the profession has had many names—e.g., publications engineering, technography, and professional communication—as well as many applicable job titles—such as engineering writer, information specialist, and content developer. At the very least, introductory technical communication textbooks should chronicle the emergence of the distinction between—to borrow Merrill Whitburn’s (2000) terminology—“practitioners” and “professionals” of technical communication (p. 107).

A textbook for an upper-level course should also include an early chapter about the historical development of the subject. Take technical editing, for example. Neither Carolyn Rude and Angela Eaton's *Technical Editing* (2011) nor Nicole Amare, Barry Nowlin, and Jean Hollis Weber's *Technical Editing in the 21st Century* (2011) includes a chapter about technical editing history, but the latter textbook does include a brief section on the history of technical editing. The authors name Erasmus as the first technical editor, citing a short (but noteworthy) conference paper about technical communication history by Frederick O'Hara (2001). Then they make this unusual statement: "Don Jensen reports that over 450 years later, Bill Zielinski became a first on his own terms: in 1962, at the age of fifteen, high school sophomore Zielinski was named the first technical editor at NASA" (Amare, Nowlin, & Weber, 2011, p. 4) As long as readers (and the authors) understand that "NASA" in this context refers to the North American Shortwave Association (originally NASA, now NASWA), rather than the space agency (see Jensen & D'Angelo, 1999), then this statement is accurate. While we commend the authors for including a section about technical editing history, we hope they will add a full chapter to their next edition—a chapter along the lines of Thomas Warren's (2010) book chapter.<sup>3</sup>

### **Determine What History Students Should Study**

Should students study primary sources (i.e., historical technical communication) or secondary sources (i.e., historical studies)? Evidence suggests that they are doing both—in some programs, to some extent. Before fall of 2009, the reading list for the master's degree option in technical writing at Oklahoma State University (OSU) included a substantial section of readings devoted to history, mainly books. Very few of the books were historical studies within technical communication proper. Most were historical texts by famous authors, such as Darwin, Galileo, Einstein, and Watson and Crick. Only one of the secondary sources was directly related to technical communication history: Teresa Kynell & Michael Moran (1999) ("Reading List for the MA," 2008). The current reading list for the master's degree option in professional/technical writing at OSU also includes a substantial section of

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<sup>3</sup> The National Advisory Commission on Aeronautics (NACA), the predecessor of the space agency NASA, had a technical editor as early as 1930s: Pearl I. Young. In July 1930, Young moved from the instrumentation laboratory, where she had been working as a Junior Physicist, to "editorial duties and began helping prepare reports for [the] printer and wrote [a] manual of style for engineers" (NACA, 1941, p. 3). In August 1935, her official job title changed to Assistant Technical Editor, and for many years she edited the reports of engineers, eventually becoming the head of an editing team (NACA, 1941). There is a theater named after Young at NASA's Langley facility (NASA, n.d.).

readings about “histories and future.” All the items are secondary sources, including two books: Kynell (2000) and Longo (2000). The articles include Robert Connors (1982), Katherine Durack (1997), Russell Rutter (1991), Teresa Kynell (1999), and Katherine Staples (1999) (“Reading List for the MA,” 2009). Thus, it appears that the program at OSU has shifted its long-standing interest in history from primary to secondary works, at least as far as its qualifying examination is concerned.

The decision about what works to study does not have to be either/or, of course. In an individual course, an instructor may use an extract from a historical document—such as the first few pages of the Herbert C. Hoover and Lou H. Hoover translation (1912) of Georg Agricola’s book on mining (1561), or a translation of Chapter 8 of William Harvey’s *De motu cordis*—in conjunction with relevant historical studies—such as Beverly Sauer’s (1993) study of notions of expertise in Agricola and Hoover, or Jo Allen’s (1991) study of thematic repetition in Harvey’s book. An instructor might use S. Michael Halloran’s (1984) analysis of James Watson and Francis Crick’s “Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid” (1953) along with a copy of the 1953 article. Generally speaking, though, historical studies are easier for students to read and understand than primary sources. This is true not only of highly technical documents in a specialty field, but also of English language documents from several centuries ago. A document such as Benjamin Franklin’s (1744) fireplace pamphlet (a predecessor of the modern-day white paper) is more difficult to read and understand than contemporary translations of Renaissance Latin works. We should not underestimate the difficulty that contemporary students have in reading documents written in earlier forms of English.

We question Jeff Todd’s (2003) suggestion that students should study American texts in English at the expense of foreign-language texts in translation. In the increasingly global environments in which technical communicators work, students may benefit from studying historical examples of technical and scientific communication in translation and across cultures. See, for example, L. G. Kelly’s (1991) bibliography of historical technical translations. For centuries, Latin was the common language of learned men in Medieval and Renaissance Europe. Studying these Latin texts in translation may reveal not only how these authors adapted their discourse to geographically and (to some extent) culturally diverse audiences but also how technologies and ideas passed from country to country. Studying multiple English translations of the same work (see Connor, 1993, p. 217) will indeed bring us closer to the original text, but it will also show us how

translations vary and make us aware of the kinds of linguistic decisions that technical translators make on a day-to-day basis. If indeed the roles of technical communicators and technical translators are converging (Gnecchi, Maylath, Mousten, Scarpa, & Vandepitte, 2011), then it behooves us to learn more about technical translation. Typically, there are not multiple English translations of a technical document unless it is old and famous.

In recent years, scholars have begun to look at the history of technical communication in non-European countries, focusing on texts in many languages, and these studies offer opportunities for cross-cultural comparisons as well as places of rhetorical invention. Technical communication artifacts from China's past have received such attention recently in our scholarly journals. Daniel Ding (2003, 2010) analyzed two Chinese technical communication artifacts: *I Ching*, an ancient technical manual, and *On Technological Subjects*, a 17th-century book about various technologies. Han Yu (2009) looked at the culinary instruction genre in China from ancient times to the present. There have also been studies of the *Talmud* (Weiss, 1998), Soviet Lysenkoist discourse (Dombrowski, 2001), and Nazi technical documents (Katz, 1992; Ward, 2010)—all involving texts in languages that would be regarded as “foreign” from the perspective of a “native” English-speaking American student. The field has begun to look at the history of the study of international technical communication (ITC). A graduate student (Huang, 2011) recently completed a literature review of ITC studies before the 1990s—the decade when, arguably, ITC became a specialization within technical communication (Cardon, 2008, p. 412).

## **Develop Historical Assignments and Activities**

Besides reading assignments and in-class discussion, instructors can allow students to do oral history interviews, obtain documents through Freedom of Information Act requests and analyze those documents, and respond to film documentaries about technical communication artifacts. People who worked as technical writers and editors in the 1960s, 1970s, and even 1980s are sources of valuable historical information about the profession in those decades. Students can do preliminary research, develop interview questions, and conduct interviews with some of these retired technical communicators, not only increasing their interviewing skills and their understanding of the development of the profession, but also preserving first-hand accounts of workplace cultures, important projects, technological challenges, and activities of professional organizations. Unfortunately, many of the founders of the profession in the 1940s and 1950s have already passed away, without ever being interviewed about their experi-

ences. Our professional organizations, such as STC and ATTW, have not undertaken large-scale oral history projects; individual instructors and their classes may be able to do so on a smaller scale. Students would have the satisfaction of producing recordings and transcripts that might be used by future researchers. Alternatively, they might use the interviews in their own publications or conference presentations.

Under the Freedom of Information Act (FOIA), students and instructors do not have to pay search fees and photocopy charges (up to 100 pages) when they request documents from federal agencies. By law, an agency must acknowledge receipt of a request within 20 days, but the waiting period for delivery of documents can be quite long—anywhere from 3 months to a year.<sup>4</sup> Nevertheless, government agencies are rich sources of technical communication artifacts—from proposals to accident reports to once-top-secret manuals for weapons. Students and instructors can acquire these documents for the cost of a letter and a stamp and use them for imitation, analysis, and/or historical study. Such artifacts might illuminate the types of writing that individual agencies produced between World War II and the present, offering insight into, for example, the evolution of application forms or specific types of memos. The FOIA request must be specific enough to enable the recipient to locate the desired record(s). It is wise for the instructor or student to specify the amount of money (if any) that he/she is willing to pay for photocopies beyond the first 100 pages.

A colleague once said that literature teachers have a plethora of feature films and documentaries that they can use in the classroom to reinforce learning objectives and generate interest in students, but technical communication teachers have very few films of the same caliber. This is not entirely true. Feature films, of course, can be used in upper-level international technical communication courses to help shed light on the challenges of intercultural communication (Briam, 2010). There are also documentaries relevant to the history of technical communication that could be used in the classroom or assigned as homework. For example, *Signs of the Time* tells the story of the creation of hand signals in baseball to communicate decisions and instructions (Casper, 2008) and might help students better understand non-verbal forms of technical communication.

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<sup>4</sup> For example, citing 36 C.F.R. 1250.52, NARA (n.d.) writes, “All executive branch agencies are required to respond to a FOIA request within twenty working days of receipt, excluding legal holidays and Federal government closures” (p. 12) and “Educational or noncommercial scientific institutions, news media representatives are charged only for photocopying after the first 100 pages” (p. 14).

The BBC aired a series titled *The Beauty of Diagrams*, with episodes devoted to Da Vinci's Vitruvian Man, Nightingale's Rose Diagram, and NASA's Pioneer Plaque. The Nightingale episode, in particular, offers insights into the importance of visual technical communication in effecting change (Clarke & Waterhouse, 2010–2011). The documentary *Helvetica* provides historical information about the origin and development of a commonly used typeface as well as glimpses of the artists who create the fonts we use every day (Hustwit, 2007). These are just a few examples of the filmic resources available to teachers of technical communication who wish to introduce historical topics in their courses.

## **A Course in Technical Communication History**

In addition to covering historical topics across the technical communication curriculum, a program might consider the feasibility of offering a stand-alone history course on an occasional or even regular basis. The following description of a course at our university may provide ideas for those who would like to offer a seminar or special topics course in the history of technical communication (see Appendix F for a detailed syllabus).

At Missouri S&T, students can take a technical communication history course as an elective for the Bachelor of Science or Master of Science in Technical Communication. The course is offered every two years and usually attracts between 10–20 students, mostly technical communication majors, but also some business and information science and technology majors and occasionally an engineering student. The catalog description of the course, which predates both authors' arrivals at the campus, states that the course is an "introduction to the roles of the technical communicator and the technologies of communication from ancient cultures to the present" (Missouri S&T, 2011, p. 252). Thus, the course covers not only the history of technical communication but also the history of communication technologies. The benefit of the latter focus was suggested in the literature in the late 1990s by Karen Schnakenberg (1998), who argued that "a sense of how communication technologies and strategies have evolved" may help technical communication students to develop "the strong analytic and problem-solving skills that today's students will need in tomorrow's workplace" (p. 65).

One of the authors taught the course in 2005, 2007, 2009, and 2011. He organized the content chronologically from ancient times to the present. The first half of the semester emphasized the practice of technical communication from ancient times to the 19th century, while the second half of the semester focused on the 20th century, particularly the emergence of the academic discipline and profession of technical communication. Key texts during the second

half of the semester were Malden Grange Bishop's *Billions for Confusion* (1964), and journal articles about the emergence of professional organizations (e.g., Tebeaux & Kynell-Hunt, 2009; Pearsall & Warren, 1996) and the careers and work of practitioners (e.g., Brockmann, 1998).

A secondary focus throughout the semester was the history of communication technologies. Before the midterm, considerable time was devoted to the history of writing surfaces (clay, papyrus, parchment, paper), book formats (tablet, scroll, codex), methods of chirographic error correction (erasures, cancellation dots, letter reshaping), printing technologies (xylography, moveable type, copper engraving), and the first use of bulleted lists in English (Tebeaux, 1997, p. 49). The readings included extracts from David Diringer's *The Book before Printing* (1982) and Elizabeth Eisenstein's *The Printing Revolution in Early Modern Europe* (2005). After the midterm, attention shifted to more recent communication technologies, such as the typewriter, the electronic computer, and the Internet, with readings from *Control through Communication* (Yates, 1989) and *Multimedia: From Wagner to Virtual Reality* (Packer & Jordan, 2002).

In addition to the readings, the students completed three reports. The first was a study of a technical communication artifact. The students usually selected texts, such as a report of the US Sanitary Commission (1864) or the first edition of Emily Post's *Etiquette* (1922), but they sometimes selected visuals, auditory signals, or objects, such as Dmitrii Mendeleev's (1869) periodic table of chemical elements, bugle calls in the US army, or the card catalogues that were once universal in libraries. If they selected a written text for analysis, they had to "read" it as a nonverbal as well as a verbal artifact (cf. Fleming, 1974, p. 160). This assignment required students to define technical communication and apply that definition to the artifact, whether the artifact was an early technical writing textbook (e.g., Earle, 1911), a survey of technical writing programs (e.g., Fountain, 1938), or the ubiquitous "No Smoking" sign.

The second report was an oral history interview with a teacher or practitioner of technical communication who was active at some point between 1950 and 1975. The university's archives cosponsored the project, accepting the fruits of the students' labor and interviewees' gifts. The students each selected an individual, filed an IRB application, requested permission and negotiated a time for a 30-minute interview, did research and wrote interview questions, secured the interviewee's signatures on a consent form and deed of gift, conducted and recorded the interview (using the 1-800 number and archiving tool in a Wimba Classroom), and finally transcribed the interview, which was then deposited in the uni-



**Figure 3. Student inspecting 1561 edition of Agricola's *De re metallica* in library.**

versity's archives. This assignment helped students to develop research and interviewing skills while they learned something about the profession's (or academic discipline's) past.<sup>5</sup>

The third report was a study of a technical communicator's career based on personnel files obtained under the Freedom of Information Act from the National Archives. The personnel files gave students access

to diachronic information about job descriptions, salaries, annual evaluations, and some project assignments.<sup>6</sup>

A particularly successful minor assignment in the course—in preparation for the first major report—was a short exercise involving a technical communication artifact. The students visited the campus library and inspected the 1561 edition of Agricola's *De re metallica*, an early printed book written in Latin about mining (see Figure 3).

As is well known, Agricola's book is copiously illustrated with woodcuts, including elaborate cutaway landscape drawings of mining operations (see Figure 4). The instructor asked students to pay particularly close attention to the illustrations as they page through this 550-year-old book—wearing special gloves, of course—and to answer questions on a worksheet. This exercise was designed to prepare students for the report about a technical communication artifact by prompting them to view a book as a nonverbal as well as a verbal document. They can learn a great

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<sup>5</sup> Students in the 2011 class interviewed such figures as Frederick M. O'Hara, Jr., formerly a technical editor at Oak Ridge National Laboratory, currently a private consultant in technical communication; Kenneth J. Cook, owner of a product documentation company in Milwaukee and former STC President; Janis Ramey, co-owner of Ramey Technical Writing in Pittsburgh; Ernest D. Mazzatenta, a long-time technical writer and former STC President; and Thomas Warren, retired Oklahoma State University professor and former president of the International Council for Technical Communication (*Intecom*), a "society of associations of technical communicators" (2012).

<sup>6</sup> In the Fall 2009 class, each student wrote about one of the following individuals: A. E. Tyler (1909–1987), founder of the LA-based Technical Publishing Society in 1954; Catherine C. Campbell (1905–1996), a technical editor at the Naval Ordnance Test Station in the 1940s and 1950s; H. L. Shimberg (1917–2005), a long-time technical editor at the Naval Ordnance Laboratory in Maryland; John L. Kent (1914–1989), founder of the Technical Writing Improvement Society in 1955; and Madeline Warnock (1911–1977), a long-time technical editor at Fort Detrick.





**Figure 4: Woodcut illustration from Agricola's *De re metallica* (1561)**

deal about the technologies of bookmaking in the early age of print and something about the culture that produced and consumed the book by focusing on the book's nonverbal elements. The fact that the book was written in Latin made it easier for them to focus on the nonverbal elements of the artifact.

Not only did this minor assignment reinforce the lectures and class discussions about the technologies of early modern book making and printing by providing a tangible product of those technologies, but it also encouraged the students to situate the technical communication artifact in its historical and cultural context. The students may have begun to see, as Sauer (1993) demonstrated so well, that a technical docu-

ment does not exist in isolation from the economic, political, and cultural context that produced it.

## Conclusion

Offering a stand-alone course in technical communication presents pedagogical challenges, just as any course does. But, as we have shown, it does afford students the opportunity to investigate the evolution of technical communication as practice, profession, and academic discipline while doing historical research. In addition, the content of the course we present here moves well beyond the most prevalent sources with a more robust and chronologically varied list of readings, asks students to relate the past to the present, and allows them to conduct historical research into the long-standing tradition of technical communication. We hope that these pedagogical decisions will produce graduates with more knowledge of their past and, in turn, a better frame of reference for the future. We also believe that this type of study helps to promote a broader collective consciousness and an improved sense of professional identity.

The results of the 2007 CPTSC-sponsored survey show that other academics also favor historical study for students in technical communication programs. On the whole, respondents believed that technical communication history is valuable knowledge for academics, students, and practitioners. We agree with their sentiments because we have seen that students benefit from that knowledge, both during their time in our program and after they have left the program.

Nevertheless, incorporating technical communication history into academia on a broad scale may be easier said than done. Disagreement remains as to how much history should be included in the curricula and how that history should be taught at different levels of study. Answering those questions seems a next logical step in this type of research.

Whatever the answers to those questions may be, we hope that we have shown here that a multitude of historical sources do exist in various formats and that their value within education is widely supported by faculty members at many institutions. We hope that others will take advantage of those sources and the suggestions contained herein to broaden their understanding and strategies.

## **Appendix A**

### **Sample Responses**

#### **Question 21**

In your response to Question 11, you indicated that the students in your program receive at least some exposure to the history of technical communication. What is the rationale for providing this exposure?

"... historical study helps to complicate the ideas that students sometimes hold that a) things have always been this way, b) the development of the profession has been a positive progress narrative and the way we do things now is necessarily better than past practices, or c) there's only one right solution to any given situation."

"... it is often in models long past that we can best analyze and see what makes things tick when texts too close to home in time and space make that impossible."

"Our whole program takes a strongly situational approach with emphasis on the adaptation of documents to their specific time and situation. Historical study is a good way to provide students with a sense of perspective on this."

"By providing at least some historical grounding, [future practitioners] are likely to be better prepared to understand where obstructive values, beliefs, and practices come from and to work more effectively to change them."

"An understanding of the depth and richness of the field, as well as a sense that it has strong theoretical underpinnings. . . adds to [students'] sense of TC as a PROFESSION, and places them in a position (in the workplace) to advocate for the importance and legitimacy of the field."

"There's a more applied aspect of this emphasis on the history of tech comm, as well: it enables students to make decisions about documentation based on precedents."

“Technical communication is a young discipline and a slightly older profession, but an ancient practice. We know embarrassingly little about our antecedents. Other professions have a much stronger sense of their own history: doctors have their Galen, engineers their Agricola, teachers their Aristotle. This lack of a historical sense in tech comm is one reason the discipline/profession is often so short-sighted, focused on the newest technique or trend. It’s also why we can’t seem to convince anyone (even sometimes ourselves) that tech comm is a profession that requires specialized training to do well. Otherwise we wouldn’t have a profession so filled with people with little or no training.”

## **Appendix B**

### **Sample Responses**

#### **Question 22**

You indicated that students in your program do not receive exposure to the history of technical communication in the context of your program’s curriculum. What is the reason for not providing this exposure?

“The certificate program is only five courses, which must address the skills and knowledge for creating technical documents.”

“The program was originally developed to provide Literature majors with a viable career option. As a result, the program had to share 50% of its courses with the literature program. This left only 35 credits for technical communication (including internships). So few courses meant that we could only cover core genre areas. We are presently changing this relationships and will expand the coverage for technical communication. But the state and the university are interested primarily in how we meet regional economic needs, so we will still focus on skills needed for the profession.”

“Students probably do get some exposure to the history of technical com, but it’s predicated up on instructor expertise and interest, rather than a conscious part of the curriculum overall. Also, our program is very applied; most people are already working in area pharmaceutical and biotech industries and want the M.S. degree as they anticipate consulting, freelancing, a raise, or just something to do.”

## **Appendix C**

### **Sample Responses**

#### **Question 32**

In your opinion, what benefits (if any) does a technical communication student derive from studying the history of technical communication?

“Security in the history and longevity of their interests as well as a sense of future possibilities tracing parallel developments in other professions as well as the development of this one.”

"I'll repeat myself: To cope with the present and to plan for the future, students need to understand the past."

"Just as all students benefit from the study of history—of their nation, of the world, so do our students benefit from the study of the history of our field/discipline. We are a young field—in terms of occupying our own niche within the field of English studies. However, many of us believe our field has a rich past, extending back to classical rhetoric. For our students, understanding the roles that language and language teachers have played and the impact they have had is critical to understanding the roles they may play and the many ways they may impact the future."

"1) historical perspective 2) knowledge of the complex factors—social, economic, political, etc.—and interactions that influence action at any time 3) examples to draw from, both positively and negatively 4) knowledge of the interaction of communication and technology 5) more perspective on current practice 6) ways to think about what factors might influence future practice 7) deliverance from the all-too-common 'presentism.'"

"A knowledge of successes in technical communication can serve as models, and a knowledge of failures can provide deterrents."

"I think it is always good to have an historical perspective of one's field. I fear that we try too much to reinvent the wheel."

"Other than historical perspective, I'm not sure."

## **Appendix D**

### **Sample Responses**

#### **Question 24**

Which statement best reflects your personal opinion about the value of historical studies to practicing technical communicators?

- A. Historical studies are very useful to practitioners
- B. Historical studies are somewhat useful to practitioners
- C. Historical studies are not useful to practitioners.

#### **Question 25**

Feel free to elaborate on your answer.

[very useful]: "1. Those who cannot remember the past are condemned to repeat it. 2. We need a toolbag full of techniques and strategies and who best to learn them from than those who came before us. After all, we do stand on the shoulders of giants. 3. Having a history gives us an identity and a sense of self-worth. 4. What other fields are blind to their past? 5. It's fun."

[very useful]: "I like the idea of teaching an entire course on the historical aspects of technical communication. In my graduate-level communica-

tion ethics course, I spend a couple of weeks on the relationship among the Nuremberg Code, the Declaration of Helsinki, and the Belmont Report in a discussion about informed consent and clinical trials protocols in medical ethics. I can envision developing this historical approach in a series of case studies pertaining to all sorts of tech comm topics—risk and benefits communication, environmental impact communication, etc.”

[very useful]: “No practitioner with knowledge of the development of the field of engineering or science will ever feel subject to the power of these recently constructed fields, and students prepared with history of the development of technical communication (esp. HCI and usability) see their futures are bright.”

[not useful]: “I’ll admit I dislike how applied our program is. But when we add more academically, theoretically oriented courses, they are sometimes difficult to run—students who want the M.S. for a raise or to prepare to consult complain about a theoretical class taking up space for applied courses. I’m unsure how to deal with this besides taking students with a higher G.P. which seems to work (the high GPA students seem more likely to be interested for the sake of interest).”

## **Appendix E**

### **Sample Responses**

#### **Question 26**

In your opinion, how important is the study of technical communication history in the training of future technical communication teachers?

- A. Very Important
- B. Somewhat Important
- C. Somewhat Unimportant
- D. Very Important

#### **Question 27**

Feel free to elaborate on your answer.

[very important] “I’m sorry to say that I still see too many teachers who see practice as isolated from both history and theory, as something that can be easily learned and practiced by studying guidelines, etc. I’m very strongly in favor of the perspective of Donald Schön [author of *The Reflective Practitioner: How Professionals Think in Action*] and Atul Gawande [*Complications: A Surgeon’s Notes on an Imperfect Science*] that professional practice is much more complex than some would give it credit for. And I think having some historical perspective is an important element of truly understanding a profession and becoming proficient as a practitioner.”

[very important] “If teachers don’t have adequate awareness of the history of tech comm, we can’t very well expect practitioners to develop a sense of tech comm as a historically-situated profession and practice. Too

often our doctoral dissertations (both at my school and more broadly) are narrow, trendy ‘research,’ which when we look closely actually means a tiny survey or usability test or pico-ethnography wrapped up in a bunch of pointless citations—enough to justify a medium-sized article if published, but hardly a book or a research agenda strong enough to survive the march to tenure. I think this superficiality is in part a result of the lack of historical and cultural depth in most doctoral programs.”

[somewhat important] “To make this topic really forceful in American curricula, I would wonder if it needs to be offered in generalist terms to a broad swath of students in many degree programs. Something like ‘History of Science and Communication’ or a portion of a course called ‘Sociology of Media and Technology’ Seems to me we are undergoing a shift in social sci and humanities that can make these topics sexy in a new way.”

## **Appendix F**

### **Sample Responses**

#### **Question 33**

In your opinion, should a technical communication program offer, on a regular basis, a course devoted entirely to the history of technical communication?

- A. Yes
- B. No

#### **Question 34**

Feel free to elaborate on your answer.

[no]: “Ideally, this would be great, but constraints of curriculum and faculty time make this nearly impossible—especially at the undergraduate level.”

[no]: “There are simply too many other areas to cover in any undergrad or grad program to justify having an entire course devoted to history of the field. Perhaps a large program with many faculty could justify this decision; our program is small and we’re stretched thin.”

[no] “There are many workable models of programmatic design. History does not have to be a distinct course-level area of study to be present in a well-conceived and executed program. It may in fact be better addressed as a component of most (or even all) courses in a curriculum, or in other words, contextualized to the work of many courses.”

[no] “I think it’s more useful to infuse the history throughout the curriculum so that its usefulness, relevance, relationship to practice are more obvious

[yes]: “If it’s an independent program, not part of a larger program in English, it should do this. If it isn’t, for reasons mentioned above, it probably just can’t do it.”

[yes]: “This would make a valuable and probably a popular elective for programs entirely focused on technical communication. My program is only a track; we don’t have enough students or enough electives to offer a course focused entirely on the history of technical communication.”

[yes] “In PhD-granting programs, yes, I feel that a regular course in the history of technical communication would be appropriate.”

## **Appendix G**

### **Syllabus for Technical Communication History Course**

- Week 1 Introduction (historical study in technical communication)
- “History, Rhetoric, and Humanism: Toward a More Comprehensive Definition of Technical Communication” (Rutter, 1991)
  - “Historical Studies of Technical Communication in the United States and England” (Malone, 2007)
  - Historical definitions of technical writing/communication
  - *Helvetica* [documentary] (Hustwit, 2007)
- Week 2 Ancient times (technical texts, clay tablets, papyrus scrolls)
- “Technical Report Writing in AD 97 [about Frontinus]” (Miller, 1956)
  - “Ancient Egyptian Medical Texts” (Lipson, 1990)
  - “The World’s Earliest-Known Technical Texts” (Swales, 1997)
  - Extracts from *The Book before Printing* (Diringer, 1982)
- Week 3 14th century (quoditian texts, manuscripts, parchment)
- A Treatise on the Astrolabe (Chaucer, c. 1395)
  - “The First Technical Writer in English: A Challenge to the Hegemony of Chaucer” (Hagge, 1990)
  - *Making Manuscripts* [documentary] (Getty Museum, 2003)
  - Medieval helpdesk [video] (Naerum, 2001)
- Week 4 15th century (shift from chirography to typography, Gutenberg)
- *The Printing Revolution in Early Modern Europe*, Chapter 3 (Eisenstein, 2005)
  - “Learned Correctors as Technical Editors” (Malone, 2006)
  - Extract from *From Gutenberg to the Internet: A Sourcebook on the History of Information Technology* (Norman, 2005).
  - *The Machine that Made Us* [documentary] (McGrady, 2008)
- Week 5 16th century (Agricola’s *De re metallica*)
- Preface to the Hoovers’ translation (1912) of Agricola’s *De re metallica* and a brief extract from the translation (Hoover & Hoover, 1950)
  - An episode titled “Hoover and Agricola” from the radio program *Engines of Our Ingenuity* (Lienhard, 1988)
  - “Of Mining, Smelting, and Printing: Agricola’s *De re metallica*” (Long, 2003)
  - “Revisioning Sixteenth Century Solutions to Twentieth Century Problems in Herbert Hoover’s Translation of Agricola’s *De re metallica*” (Sauer, 1993)

*The Role of Historical Study in Technical Communication Curricula*

- Week 6 17th century (Harvey's *De motu cordis*)
- Translation of Chapter 8 of *De motu Coris* (Harvey, 1952)
  - "Thematic Repetition as a Rhetorical Technique" (Allen, 1991)
  - "Commentary on *Rhetorical Analysis of William Harvey's De Motu Cordis (1628)*" (Connor & Connor, 1992)
  - "A Response to J. T. H. Connor and Jennifer J. Connor's Analysis" (Allen, 1992)
  - "Medical text and historical context: Research issues and methods in history and technical communication" (Connor, 1993)
- Week 7 18th century (Franklin's fireplace pamphlet as white paper)
- *An Account of the New-Invented Pennsylvanian Fire-Places* (Franklin, 1744)
  - "Teaching the history of technical communication: A lesson with Franklin and Hoover" (Todd, 2003)
  - Definitions of "white paper" by Stelzner (2005), Willerton (2002), etc.
- Week 8 19th century (sewing machine manuals, visual communication)
- "Authority and Audience-Centered Writing Strategies: Sexism in 19th Century Sewing Machine Manuals" (Durack, 1998)
  - "Something in motion and something to eat attract the crowd: Cooking with science at the 1893 World's Fair" (Lippincott, 2003)
  - *The Beauty of Diagrams: The Rose Diagram* [documentary] (Clarke & Waterhouse, 2010–2011)
- Week 9 Development of the academic discipline, part 1
- "The Rise of Technical Writing Instruction in America" (Connors, 1982)<sup>7</sup>
  - "Technical Communication from 1950-1998" (Staples, 1999)
  - "Developing an Undergraduate Curriculum for Training Technical Writers and Editors" (Steinberg, 1960)
  - Extracts from land-grant university catalogs, 1920s
  - Extract from *A Study of Courses in Technical Writing* (Fountain, 1938)
- Week 10 Development of the academic discipline, part 2
- "The Association of Teachers of Technical Writing: The Emergence of professional identity" (Kynell-Hunt & Tebeaux, 2009)
  - "The Council of Programs in Technical and Scientific Communication: A retrospective" (Pearsall & Warren, 1996)
  - "The First Week-long Technical Writers' Institute and Its Impact" (Whitburn, 2009)
- Week 11 Early electronic computers (Joseph D. Chapline)
- "The Story of Joseph D. Chapline, First Computer Documentation Writer and Manager, 1948–1955" (Brockmann, 1998)

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<sup>7</sup> One semester, the instructor of the course used the first half of Kynell (2000) in Week 9 and the second half of Kynell (2000) in Week 10 in place of other readings. Connors' (1982) article is now an historical artifact itself. In some ways, though, it is more serviceable than Kynell's excellent book.



*The Role of Historical Study in Technical Communication Curricula*

- Information about Chapline's involvement in the founding of the IRE Professional Group on Engineering Writing and Speech in 1957 (e.g., Malone, 2008)
- *John Mauchly: The Computer and the Skateboard* [documentary] (David & Reed, 2000)

Week 12 Women technical communicators, 1940-1960

- "Chrysler's Most Beautiful Engineer': Lucille J. Pieti in the Pillory of Fame" (Malone, 2010)
- "Technical editing . . . A career for women" (Cortelyou, 1955)
- Short newspaper articles: "WACs" (1944), "Many Fields" (1948), Callan (1951), "Program" (1956), N.H.G. (1958), Mundell (1960), etc.
- *Top Secret Rosies: The Female Computers of World War II* [documentary] (Erickson, 2010)

Week 13 Development of the profession, part 1

- *Billions for Confusion: The Technical Writing Industry* (Bishop, 1964)
- Extracts from *Control through Communication* (Yates, 1989)
- Documents from selected personnel files

Week 14 Development of the profession, part 2

- "Technical Writing and Professional Status" (Light, 1961; Hallier & Malone, 2012)
- "The First Wave (1953–1961) of the Professionalization Movement in Technical Communication" (Malone, 2011)
- Selections from *Multimedia* (Packer & Jordan, 2002)

Week 15 Future of technical communication

- "A History of the Future: Prognostication in Technical Communication" (Wright et al., 2011)
- "What If Readers Can't Read" (Self, 2009)
- "Are We There Yet?" (Rauch, Morrison, & Goetz, 2010)
- "Six Emerging Technologies to Watch" (Evans, 2011)
- *The Beauty of Diagrams: Pioneer Plaque* [documentary] (Clarke & Waterhouse, 2010–2011)

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*The Role of Historical Study in Technical Communication Curricula*

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# NSF ADVANCE Grants and Technical Communication Faculty

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**Abstract.** The National Science Foundation ADVANCE program is a direct response to the low percentage of women who enter the professoriate upon earning degrees in fields of science, technology, engineering, and mathematics (STEM). Despite the STEM focus of NSF ADVANCE, technical communication faculty may benefit from ADVANCE grants if they are aware of the opportunities presented. This article points out ways that technical and scientific communication faculty can integrate with NSF ADVANCE initiatives on their campuses. The author provides faculty and program administrators ideas for using NSF ADVANCE as a professional development tool and to recognize the skills we contribute to large proposal-writing teams.

**Keywords.** technical communication, professional writing, NSF grants, faculty collaboration, cross-disciplinary collaboration, external funding, gender in technical communication, gender studies, NSF ADVANCE, professional development

*A rising tide lifts all the boats.*

—John F. Kennedy

**T**he National Science Foundation ADVANCE program is a direct response to the low percentage of women who enter the professoriate upon earning degrees in fields of science, technology, engineering, and mathematics (STEM). Women are underrepresented in faculty and administration ranks in STEM fields, and the underrepresentation is particularly noticeable at STEM-centric institutions, many of which also have technical, scientific, and/or professional communication programs. My current institution, Missouri University of Science and Technology (Missouri S & T), is pursuing an ADVANCE grant at this writing; my experience collaborating on the grant proposal motivated this article. Despite the STEM focus of NSF ADVANCE, senior researchers on our campus persuasively

argue that such a grant would improve the quality of work life for not only women in STEM fields but also for all faculty at our university. Technical communication faculty may be especially likely to benefit from ADVANCE grants if they are aware of the opportunities presented.

The need to improve working conditions for women STEM faculty has been identified as an important area for the NSF. Although about 40% of degree recipients in science and engineering are female, only 28% of faculty in those fields overall are women (Mervis, 2011). The reasons women leave the academy vary, but many institutions have been able to identify programs that would help retain women, and NSF ADVANCE funding enables institutions to implement such programs. CPTSC members may be aware of NSF ADVANCE grants, which provide an infusion of significant capital for programs that improve conditions for women faculty in STEM fields. Over one hundred institutions have benefitted from ADVANCE funding (NSF), many of which house technical and/or scientific communication programs (see Appendix).

Technical and scientific communication programs may reside within or outside NSF-funded STEM-oriented departments, and the ability for our faculty to benefit from the opportunities concomitant with ADVANCE grant funding may depend directly on the location of our departments, making the question of location more important than ever (see Dragga, 2010). Local expectations, or practices, vary depending on the identity of the department; as summarized by Bruce Maylath, Jeff Grabill, and Laura Gurak (2010), humanities and literature-intensive departments can operate much different from departments of science and engineering. External funding, sought from sources outside the university system, is one of the most obvious differences between STEM and humanities departments or colleges. The expectation of external funding may be a better example of the contrast between these types of departments than the list provided by Maylath, Grabill, and Gurak, which included “internships, technology, design, and collaboration” (2010, p. 263).

Technical and scientific communication programs are sometimes housed in departments or colleges where we mingle with STEM colleagues who routinely seek NSF funding. One example of such a department is Human Centered Design & Engineering in the College of Engineering at the University of Washington. For technical and scientific communication faculty employed in such departments, benefits of ADVANCE grants might be immediate and obvious; communication within the department may educate all faculty about opportunities. On the other hand, when our programs are located within departments of English or humanities, we may be

ignorant of many or most of the activities an ADVANCE grant brings, even if several million dollars has been awarded to our campus. Alternatively, we may be more purposefully excluded because English and humanities faculty are not the target for the programs, primarily because NSF's mission focuses on science, but also because the humanities already enjoy greater faculty diversity and are thus in less need of programming to retain female faculty. NSF funding does not necessarily boost all departments on a campus, whether by design or accident. In this respect, the metaphorical rising tide lifting all the boats may seem misleading; however, if non-STEM faculty are aware of opportunities associated with an ADVANCE grant, they may be better able to take advantage of them.

The NSF definition of science includes social and behavioral science and separates those fields from humanities and arts—a problematic separation for those of us who are boundary spanners. Although many technical communication faculty members in English departments conduct research using social science research methods, we may not be identified as social sciences faculty, especially if our department, college, or program names suggest another disciplinary category. Such distinctions are not necessarily important to technical communication faculty when job-seeking or during day-to-day activities, but they can impact our careers later, for example, when we find ourselves labeled as *non-STEM* faculty and seem branded for exclusion.

Such identity-based exclusion, however, is not a given with NSF ADVANCE grants. In fact, the NSF ADVANCE premise is that some universities need to change quite broadly—beyond STEM departments—because their cultures militate against diversity; NSF's use of the term *institutional transformation* appears to be taken very seriously. NSF recognizes that cultural change happens from the inside out, and ADVANCE does not impose one particular strategy on universities, rather, it allows the university faculty to propose programs that seem to hold promise for improving a specific, local institution. For an agency with the primary mission of supporting the progress of science, the human-centered goal of ADVANCE is distinctly different from the typical expectation of basic research in the context of hard science. NSF is now acting on a broader interpretation of its mission, addressing problems related to culture, humanity, and community. NSF ADVANCE documentation reflects agency officials' awareness of the difference between such efforts and those it typically funds. And, with this different purpose, greater opportunities emerge for faculty who typically don't interact with NSF.

This article points out ways technical and scientific communication faculty can integrate with NSF ADVANCE initiatives on their campuses.

My purpose is to provide faculty and program administrators with ideas for using NSF ADVANCE as a professional development tool. Because NSF ADVANCE programs are specifically targeted at women and other under-represented faculty, women in technical and scientific communication may be more likely to benefit from ADVANCE programs than men, but this is not necessarily the case because each funded organization decides how it will allocate its funds. Men and women from across disciplines are involved in ADVANCE projects in various capacities, strengthening project effectiveness and reaping professional rewards.

## **NSF ADVANCE Overview**

As of 2011–2012, NSF is funding two primary types of programs under ADVANCE. The first is Partnerships for Adaptation, Implementation, and Dissemination (PAID) grants, offering funding for resource-challenged institutions to study their campuses and form partnerships to pursue projects related to ADVANCE goals. PAID grants range from about \$50,000 to over \$1 million.

The most highly-prized grants are the Institutional Transformation (IT) grants, five-year comprehensive grants that seek—as suggested by the title—to transform institutions and create more comfortable and equitable working environments for STEM women faculty. Obviously, such a goal is difficult to achieve, and NSF states that creative methods of fomenting innovative, systemic changes are sought (NSF). Applicants identify strategies likely to have potential for transforming their institution. Some ADVANCE projects directly supplement professors' resources as a vehicle for institutional change. For example, Georgia Tech provided \$40,000–\$60,000 in funds for several "ADVANCE Professors" to create and pay for research collaborations (some funds were matched by the institution, in this case). IT grants range from \$478,000 to almost \$4 million; the \$3 million range is fairly common (NSF Award Search).

If an institution is not ready for an NSF ADVANCE IT award, a "Catalyst" award of up to \$200,000 can fund the data collection and groundwork needed to apply for the larger award. All STEM departments or units are assessed under such awards, though the assessment tools vary. Climate surveys, institutional policy review, and institutional data collection and analysis are typical tasks of IT Catalyst awards (NSF).

To date, over 100 institutions have received NSF ADVANCE funding, in the form of 37 IT grants, smaller grants such as PAID, and grants to individual researchers. The current cycle intends to add 23 awards during the two fiscal years covering 2011–2012 (NSF).



## The Relevance of NSF ADVANCE to Technical Communication Program Administrators

Increasingly, university structures that house technical communication programs—be they departments of humanities, English, engineering, or colleges such as arts and sciences—face diminishing state support and an inability to raise tuition to offset costs. Public institutions increasingly rely on external funding from the federal government, private industry, and research & development efforts. The \$7B NSF budget is a staple of many academic STEM programs. Department chairs in science and engineering fields are typically well-versed about NSF, but administrators from the arts and humanities are very likely to be more familiar with NEA and NEH funding opportunities, for example, than NSF. It is noteworthy that NEA and NEH funding *combined* are only about 5% of the NSF budget (James Madison University, 2011).

Given the social-science research of many technical communication faculty members, the much larger amounts of money available from NSF, the willingness of NSF to fund social sciences research, and the increasing need for external funding in departments that have previously not relied on it, program administrators must assist and support faculty in identifying opportunities for involvement in large grant-funded projects. In this way, we can continue to address the need reported by Ann Blakeslee and Rachel Spilka (2004), in which prominent researchers in our field voiced concern about the field's lack of fundable research and lack of visibility to major funding agencies. Of course, NSF ADVANCE projects are not guaranteed to mesh well with all the research priorities of our field or of individual researchers. To an extent, ADVANCE involvement may constitute opportunistic research, as we accommodate our research agendas to the grant. As a field, we might more productively ask, "what *should* we be studying, and how can we fund it?" rather than "what does a particular grant *enable* us to study?" However, if lack of funding prevents our development of a shared agenda, then some compromises—along with broadening of our research sites—may be necessary in order for us to develop infrastructure and disciplinary maturity to chart our own course.

The assistance and support necessary for faculty involvement in grants such as NSF ADVANCE IT comes primarily through administrators understanding the external funding machines on their campuses, and committing to expend the resources necessary to bring more external funding into academic units. Some departments are taking the visible, tangible step of advertising faculty positions with external funding as an expectation of employment; the expectation of successful grant-writing is articulated publicly before can-

didates even apply for the positions, and one hopes, other faculty in the hiring department are supportive of such a position description for their prospective colleague.

Faculty expected to secure external funding, in our departments as much as in our STEM counterparts' departments, need substantial reassigned time for work on large grants because the time commitment of meetings, background research, reading, and acculturation can reach the equivalent of teaching a course, depending on the specific role of the faculty member on the grant. In some cases, greater involvement means greater time commitment, which may also eventually yield greater benefits from the grant if awarded. When and if funding is received, reassignment time must again be available to faculty members responsible for initiatives and/or deliverables, without repercussions (such as later making up or paying back release time). Faculty members should not be expected to teach overloads if simultaneously working on large external grants. The work on a large grant should not be above and beyond the normal faculty workload, but rather, integrated. Both the pre-submission effort and work on a funded project should be recognized as part of the workload.

The impact of grant-seeking activities on annual reviews and tenure and promotion decisions should be articulated. Faculty involved in seeking grants in a department where such activity is a novelty need to be protected from consequences, for example, of a lighter course load (fewer teaching evaluations, appearance of lower workload), reduced availability for other service, and fewer publications. A distinct possibility is that a time-consuming proposal will not be funded. Seeking external funding comes with risks, perhaps especially to junior faculty members who operate outside departmental tradition. If our departments do indeed change, faculty who are part of the new paradigm will need to be protected from what Maylath, Grabill, and Gurak (2010) called, in another context, "preconceived notions of work assignments" (p. 267). Equity among faculty members with widely-varying workload components will be an increasing challenge for department chairs.

## **Advantages to non-STEM Faculty of ADVANCE Involvement**

If the risks are considered to be worth taking, and technical communication faculty do engage in NSF ADVANCE grant-seeking activities, the potential benefits can be assigned to four general categories:

- Financial
- Cultural
- Professional
- Personal

To benefit from ADVANCE funds on campuses, faculty need not necessarily be listed as principal investigators. However, faculty do need to be able to directly contribute to the project initiatives proposed for their campuses, and may be needed to generate ideas for projects that would work to transform their campuses. Humanities and social sciences faculty members familiar with relevant research methods, gender-based research, diversity initiatives, and/or workforce issues participate as principal investigators (PIs), project evaluators or directors, or as senior faculty on ADVANCE grants.

The following discussion of benefits of ADVANCE affiliation is derived from a review of ADVANCE proposals, reports, and project-related documentation available at various ADVANCE-funded institutions' websites.

## **Financial**

For technical and scientific communication faculty located in departments of humanities, liberal arts, English, or other non-STEM fields, research grants may not be expected, much less required, for our jobs. For some, a modest (<\$10,000) internal research grant may be sufficient where minimal research support is a criterion used for annual evaluations or promotion and tenure decisions. One recent tenure-track faculty position announcement in technical communication did specify the ability to generate external funding as an expectation, suggesting that our ability to avoid grant-seeking may be waning.

On an ADVANCE grant, senior personnel, internal and external evaluators, staff, and consultants are compensated for services. Faculty associated with ADVANCE grants have reaped a variety of direct financial rewards: teaching releases, summer salary, travel funds, and equipment (computers, hardware, software). ADVANCE Co-PIs and affiliated faculty may budget significant release time and/or salary for themselves, as well as senior personnel, consultants, and evaluators. NSF grants may seem relatively lavish to humanities faculty, as NSF intends to pay for all tasks associated with funded projects, including staff support, development of publications, conference travel, time, and equipment. Contrast this to many smaller funding programs that supply only a small part of the actual costs of a project, including our own popular CPTSC research grants that currently top out at \$1,500. Even nominal or peripheral involvement with ADVANCE-related work can be compensated, and no restriction exists against non-STEM faculty benefitting from such compensation. In fact, for IT grants, cross-campus participation demonstrates institutional buy-in, a plus for ADVANCE grant competitiveness.

At most research universities, the facilities and administration (F&A) costs charged to NSF grants represent about half the actual program costs; the principal investigators (PIs) on a grant may have a percentage of the F&A returned to their departments as sponsored research incentives (SRI). Such returns, even if relatively small, create a pool of discretionary funds to bolster meager budgets for travel, speakers, supplies, and scholarships. Typically, SRI funds are split between the department and faculty member, rewarding faculty directly for involvement in such grants. SRI funds are only distributed to faculty with an allocated percentage of effort on the grant, and are in addition to other compensation such as summer salary.

## **Cultural**

Technical and scientific communication faculty may not be expected to generate external funding dollars, but seeking such funds can benefit us through greater institutional status or cultural capital. The sponsored research establishment on a research campus is enormous, with large numbers of specialized staff members and a wealth of technical communication-related phenomena; it's a site of interest for many of us once we know what happens there. A technical communication professor known to seek grants is more likely to be sought out by science and engineering faculty to serve as personnel for other projects. Thus, even unsuccessful bids for funding can lead to new opportunities for collaboration, research, publication, and perhaps more importantly, a feeling of belonging on the campus.

NSF-related work involves a process of enculturation. The process of applying for NSF funding is daunting, in the sense of being laborious, tedious, jargon-ridden, and otherwise confounding. Technical communication faculty who pride themselves on clear writing and plain language may be dismayed by initial brushes with NSF-ese. Applying for NSF grants involves registering, receiving an ID, username, and password, and a lot of virtual paperwork. Only after we have participated in such systems can we understand the nature of the world in which our STEM colleagues operate. Further, those of us who teach graduate students in science and engineering will be able to better talk the talk of the fields in which these students currently study and in which some of them plan to become professors. The sense of being part of a new rhetorical arena, discourse community, and/or activity network is palpable—and represents a canonical cultural experience valued by our field.

NSF grants are team efforts, frequently multidisciplinary, raising the inevitable communication challenges. At the same time, working through

such challenges tends to be expected and performed regularly by our colleagues in science and engineering. By participating in the NSF grant-seeking process, we can develop and build relationships with far more faculty and staff on campus than we will encounter if we avoid external grant seeking. If we typically conduct qualitative research, we may uncover a wealth of research questions, helping to shape our research agendas. Further, when an administration supports an NSF ADVANCE IT grant, they are giving the nod to asking hard questions about campus cultures, ones that cultural/critical scholars may have raised but have not begun to fully explore. The aspects of campus cultures that repel or reject diverse faculty members can now be more openly interrogated.

A broader cultural issue may also be addressed implicitly when technical communication faculty members rooted in a humanistic tradition engage with STEM colleagues on projects such as NSF ADVANCE. The resurgence—real or perceived—of culture wars between literary scholars and scientists is unlikely to benefit nonscientists, judging from both history and current social realities. Boundary-spanning may be a way to help negotiate and reframe the science/humanities relationship, and bringing our expertise to a project like NSF ADVANCE may help us ally ourselves with STEM colleagues instead of distancing ourselves from them.

## **Professional**

Assuming that technical communication faculty members are subject to publish or perish laws, ADVANCE projects can provide ample opportunities for deepening and broadening publications. Frequently, small studies associated with ADVANCE-funded initiatives, such as facilitation of focus groups, are publishable at institutional conferences or symposia. Affiliation with an ADVANCE-sponsored project may lead to an invitation to speak at such a venue or at another university, perhaps one currently seeking ADVANCE funding. From there, opportunities to serve in an evaluation capacity emerge.

Conferences such as the Women in Engineering ProActive Network (WEPAN) may be unknown to us unless we become involved with programs that seek to encourage women faculty in engineering. A glance at any WEPAN proceedings (WEPAN, n.d.) shows that presenters are from various disciplines, not just engineering, and ADVANCE-funded initiatives tend to fit squarely with the WEPAN mission.

Research on ADVANCE program initiatives may well focus on ethnicity, gender, technology, and/or communication, all of which are topics publishable in journals specific to technical communication, writing, rhetoric, higher education, and, of course, diversity.

Evaluation opportunities specific to NSF ADVANCE may be internal or external; extended discussions of evaluation are found online (Frehill; Frehill, 2006). An internal evaluator may serve as a co-PI and would be responsible for framing the assessment of the project, an important part of the proposal. Qualitative assessments, such as analyzed transcripts from interviews, focus groups, and/or open-ended survey questions, are often employed. Quantitative assessments include not only institutional data, such as the number of male and female faculty, but also nationally-standardized instruments such as Collaborative on Academic Careers in Higher Education (COACHE) and Higher Education Research Institute (HERI) faculty surveys. An evaluation strategy combining qualitative and quantitative methods is frequently evident in reports from ADVANCE projects available online.

## **Personal**

A university that needs an ADVANCE grant is, by virtue of self-selection, one that isn't already an ideal place for faculty—sometimes the perception of a chilly climate is limited to women, but often, it's more widespread, perhaps specifically for underrepresented ethnic minorities or faculty in marginalized disciplines. Even if a department isn't overwhelmingly male, some campuses are home to a student population of mostly males (about 75% at Missouri S & T), and some departments on a campus have few or no women faculty. Engineering departments are expected to have more male professors and students than, for example, English departments. Leadership or executive positions may seem to be closed to women academics at institutions where they are held largely or exclusively by male administrators or staffed exclusively with nonacademic staff. Any of those factors can be discouraging, and combinations of factors can be downright alienating.

A team devoted to pursuit of an ADVANCE grant will include faculty and administrators from across campus who acknowledge the challenges specific to women, minority, or underrepresented faculty, and who invest significant time, energy, thought, and perhaps other resources (staff time, equipment, travel) to rectify inequities. Such a goal provides opportunities for technical and scientific communication faculty to undertake personally meaningful work; the opportunities need not be related to service, but can involve research as well.

As an example, my involvement with Missouri S & T's pursuit of an NSF ADVANCE IT grant began when I was asked to conduct a series of focus groups to collect background information needed to frame the proposal. After conducting the focus groups, I compiled a report based

on a coarse-grained discourse analysis of the focus group transcripts. The confidential report, provided only to the PIs and the university Provost, made me visible to an otherwise inaccessible senior administrator. The conclusions in my report directly fed into the project initiatives identified by the ADVANCE PIs. I also found myself, for the first time, greeted by male colleagues in other departments. For me, the benefits of affiliation with an NSF ADVANCE IT proposal have primarily been personal, but they were satisfying enough for me to seek further involvement with the ADVANCE project on our campus.

## **Specific Examples of Humanities Faculty Collaborating on ADVANCE**

North Dakota State University's ADVANCE project, called NDSU FORWARD, featured Dr. Elizabeth Birmingham of their English department as both a co-PI on the proposal and executive committee member on the project. During five years of NSF funding, she generated several refereed conference proceedings papers as well as other forms of involvement with WEPAN. Her background in gender studies suggests a strong fit to the focus of such programs on women faculty. Similarly, Nancy Steffen-Fleur, a scholar of literature who also teaches gender and technology and computer-mediated writing, served as a co-PI for NJIT's ADVANCE grant. At both NDSU and NJIT, other faculty members from departments clearly representing social science (Anthropology, Science & Technology Studies) were also included. Both Steffen-Fleur and Birmingham were included in ADVANCE as co-PIs, despite their non-STEM academic homes. They both serve as excellent examples upon which to base arguments that non-STEM faculty should be recruited as Co-PIs and should be directly involved with planning and executing ADVANCE projects. Looking at the websites of university-based ADVANCE IT projects demonstrates the diversity of faculty associated with the grants (see Appendix).

## **Technical Communicators as ADVANCE IT Participants**

The academic training we have, as technical and scientific communication faculty, positions us very well for involvement in NSF grants, especially ADVANCE IT grants. This is the case whether the local ADVANCE grant is central or peripheral to our workloads. Grant writing, disciplinary writing, and cross-cultural communication are the topics of well-known texts (e.g., Cross, 2001; Johnson-Sheehan, 2002; Spilka, 1993). Scholarly research reports related to grant writing, engineering communication, and NSF itself are common in our field and can serve as an entry into the world of

the NSF megagrant. For example, Roxanne Kent-Drury (2000) provided an ethnographic case study lending insight into the power dynamics of grant-seeking teams. With their focus more on texts rather than people, Ryan M. Moeller and David M. Christensen (2010) used genre-field theory to examine the position of NSF researchers in the grant writing and funding system.

Many of us have industry experience that prepared us for the communication tasks and challenges that arise over the course of the NSF ADVANCE grant life cycle. My primary arguments are that 1) we understand and work well in truly interdisciplinary efforts; 2) our backgrounds are likely to include specific areas of inquiry, enabling us to contribute substantially to various parts of the ADVANCE grant proposal and programming; and 3) our rhetorical skills are inordinately useful in NSF grant writing and the tasks associated with fulfillment of the requirements once such a grant is received.

### **We do Inter/Cross/Multidisciplinarity**

Our journal, book, course, and conference presentation titles attest to our keen interest in collaborative writing, crossdisciplinary communication, and intercultural communication, all of which are useful skills for NSF grant seeking team members. Working in interdisciplinary teams is a skill many technical communicators learn on the job, especially in technical writing environments where we transform technical material provided by subject matter experts into usable information for end-users, remembering the various stakeholders involved directly and indirectly with such an enterprise. Similar to a position I once held as a technical writer in industry, the NSF ADVANCE grant literally brought me to the table with colleagues in engineering and business. In such situations, the technical communicator may be the person with the most crossdisciplinary experience, even if she has the least grant-writing experience and the lowest status on campus. ADVANCE grant proposals, like complex product manuals, take many months to write, require various kinds of research (archival and field), and must be carefully written and edited. Collaboration with professionals not physically located on the campus is likely necessary to develop the proposal. The proposal, which will probably exceed 50 pages, becomes a contract if funded, requiring that we eventually compare results to promises made.

As Kent-Drury (2000) noted in her report about proposal-writing teams, complicated social dynamics of such teams require a different style of management than many other aspects of industry. Such teams are not necessarily the norm in academia, either, especially on campuses com-



prised of disciplinary silos. Though colleagues in some disciplines may not be expected to collaborate and seek grants with other faculty in different departments, faculty in technical communication often seek such partnerships whether they are required or not. The affiliations of co-authors on publications and conference presentations provides ample evidence of our collective respect for mixing with colleagues in other academic fields as well as with partners in industry, public schools, nonprofits, and other sites.

Our ability to function on interdisciplinary teams is not something typically learned in a classroom, but it probably doesn't hurt that those of us who teach technical communication organize such teams in classrooms all the time. We are fortunate to be able to observe people's behaviors, analyze the elements contributing to team success and failure, and communicate with participants about their perceptions of team efforts.

Teams tend to need clear and measurable goals, leaders who can mediate disagreements and determine when a change of course is needed, and fair assignment of responsibilities and credit. Although a technical communication faculty member may not be the likely point person on an ADVANCE grant because we tend to be non-STEM, some of us can argue that we are good team players, with collaborative ventures on our CVs as evidence. Those of us from industry have very likely learned to compromise, to disagree without being disagreeable, and to communicate effectively over email and in person. If we have internalized the wisdom of our textbooks, we can differentiate productive from unproductive conflict, and identify our weaknesses and abilities.

By formally and informally demonstrating that we have the skills required to communicate with colleagues across campus, we become more likely to be tapped for participation in major projects.

## **Our Backgrounds Contain the Right Ingredients**

Technical communication curricula vary greatly, but some of the components that can make an ADVANCE IT grant successful require the skills and expertise many technical communication doctorate holders possess.

First, the emphasis of ADVANCE on women opens the door to qualitative research and gender studies. From the proposal-writing phase to the writing of the final reports, ADVANCE activity requires more than the ability to present data clearly or explain systems. Effective arguments need to include answers to *why* questions, the hallmark of qualitative research. Mixed methods approaches may be misunderstood by our colleagues who practice in a different research paradigm. And perhaps more importantly, ADVANCE is about gender and power, and a recalibration toward hav-

ing more women in positions of relative power in academic institutions, which gives rise to discussions, policies, and conflicts ripe for interpretation through our theoretical lenses. We are likely to be familiar with critical theory and methods such as critical discourse analysis. Such experience enables us not only to engage with the social reformist agenda of the NSF ADVANCE program, but to articulate the situations on campuses and to connect local situations to NSF program goals.

In our campus's pending NSF proposal, the proposed project director's desired qualifications may well include a background in gender studies. STEM-centric campuses (like mine) may lack departments of sociology, women's/gender studies, and cultural studies. Therefore, they may not be able to internally hire from such departments, and they may not have many qualified persons to sit on a hiring committee for a project director. The faculty member who does feminist criticism may typically be ignored by STEM researchers, and yet an understanding of feminism, gender studies, and cultural issues becomes essential in the search for such an ADVANCE director position.

### **Our Rhetorical Skills Make Us Indispensable**

The first site of rhetoric with respect to ADVANCE may be to make ourselves known and available to be called upon to contribute to the grant as a co-PI, internal evaluator, external evaluator, or other role. Effective self-promotion pays off. Once involved, it's up to us to demonstrate that our research, collaboration, information design, argumentation, and synthesis skills merit greater challenges than copyediting.

A major aspect of ADVANCE is evaluation—first, providing an assessment strategy in the proposal, and then being able to articulate with evidence whether, and how, the project goals have been met. For example, the NSF ADVANCE IT grant may be provided to an institution where women faculty are not being retained at the same rate as male faculty, with the resulting attrition skewing the gender balance. NSF reporting in this case would not only include numeric data about retention, promotion, and attrition by gender, but also explanations about *why* people stay or leave. Our ability to conduct qualitative, interpretivist, ethnographic, and/or critical research using field methods enables us to tell the story behind the data, and our investigation is likely to be deeper and broader than statistical information available through human resources and institutional research offices. We should recognize that faculty who use NSF funds must articulate *how* the money contributed to an improved situation on campus and demonstrate that the funded work met the goal of institutional

transformation. Connecting the evidence to the claim is something we learn through taking and teaching courses in argumentation, discourse analysis, field methods, and related advanced technical communication coursework.

Large NSF grants such as ADVANCE IT offer many opportunities for proposal-writing skills, described by Johnson-Sheehan as “rhetoric for managing change” (2001). First, connections between grant goals and proposed projects need to be made very clear, while still legitimately serving the reality of campuses. The needs of particular campuses are not always easy to demonstrate. And the promise that the NSF grant will help us solve problems is nothing but a rhetorical exercise: we can’t predict the future, and we may actually misunderstand campus cultures to the point that our efforts will be futile. Yet the act of articulating need, promising benefits, and planning an evaluation strategy must still be done. Rhetorical acumen is obviously useful here.

## **Aftereffects: NSF Language and Other Limitations of ADVANCE**

Despite the bright hope of a more equitable working environment for faculty, NSF ADVANCE carries with it the aura of all NSF programs. The definitions used by NSF seem exclusionary. Because NSF specifically targets science, technology, engineering, and math, all other fields are referred to by the exclusionary term *non-STEM*. Such marked form is not just one of delineation, but possibly of degradation for faculty who happen to be defined by it. The partitioning of female tenure-track faculty by rank, gender, and discipline militates against the boundary spanning that, itself, would herald a more inclusive and less hostile working climate for some scientists and engineers.

Further, the current explicit exclusion of graduate students and nontenure-track faculty as focal beneficiaries for ADVANCE grants seemingly elides the fact that if female graduate students are not mentored carefully, they will not contribute to a burgeoning female professoriate. The current ADVANCE call for proposals specifically warns against *pipeline projects*: “This program does not support projects to increase or retain the number of women entering into or persisting in STEM doctoral degree programs” (NSF).

Because NSF is broadly construed as a faceless government agency that only values quantitative research in hard science, NSF ADVANCE programs require a shift in thinking by prospective applicants, especially previous NSF STEM awardees. ADVANCE programs, unlike much other NSF-funded research, invite qualitative research, field methods from

social sciences, and mixed-methods approaches. ADVANCE proposals and reports are often developed with results of open-ended questions, semi-structured interviews, and focus groups. Granted, quantitative metrics may still be privileged, including reliance on standardized climate surveys to measure faculty satisfaction. Scientists' and engineers' previous NSF experience may bias them against non-STEM faculty, even though they may outwardly acknowledge the need for qualitative research and a broad disciplinary representation among personnel identified in the proposal.

## **Conclusion**

The infusion of capital represented by an ADVANCE IT grant probably offers some opportunities for non-STEM faculty, depending on the projects funded under a particular institution's grant. However, if NSF ADVANCE IT projects are successful, all faculty—not only women and minorities, and not only STEM faculty—should experience transformations of their universities that positively impact working conditions, work/life balance, and perceptions of their institutional cultures. Such positive results should extend to faculty in arts and humanities as well as to staff and students as well. Frequently, NSF program teams are comprised of deans or chairs from all colleges or departments in the university, which means administrators responsible for technical and scientific communication faculty can be involved in the discussions that typically target engineering and science deans. ADVANCE initiatives require universities to track and improve numbers of women hired, tenured, and promoted to administrative leadership positions, and who receive support and awards. Administrators who take such a trajectory seriously are not likely to exclude non-STEM women from the benefits resulting from ADVANCE-related revelations.

With respect to some of the types of projects ADVANCE encourages, it is said that "sunshine is the best disinfectant," meaning that disseminating information about problems can lead to solutions. When discrepancies in salaries, lab space, startup packages, or other career supports are uncovered, steps can be taken by department chairs and higher-level administrators to balance the allocation of resources across gender and ethnicity. Such resources benefit larger groups than the narrow target of STEM women. NSF-funded programs can benefit additional faculty as well. When lactation rooms are provided on a campus, they are not limited to women in certain fields, though they may be more conveniently located to them. If a daycare center is built, faculty parents in all departments may benefit, and staff and students are sometimes able to use such facilities.

On my campus, the key individual behind our NSF ADVANCE IT propos-

al was fond of quoting JFK: "A rising tide lifts all the boats," (Kennedy, 1963). She did so as a reminder that the goal was not just to improve the lives of STEM women, but of all faculty, and indeed everyone on our campus. The 2006 AAUP Faculty Gender Equity Indicators Report listed our university as dead last of all doctoral universities, with 12.1% women among our tenured/tenure-track STEM faculty. We're hoping for a rising tide.

## Appendix

A complete list of ADVANCE program web sites is available from <http://www.nsf.gov/crssprgm/advance/itwebsites.jsp> Some ADVANCE IT programs on campuses with relative well-known technical and scientific communication programs are listed below with links to the program website.

- New Jersey Institute of Technology <http://advance.njit.edu/>
- University of Michigan <http://sitemaker.umich.edu/advance/home>
- North Dakota State University [http://www.ndsu.edu/forward/people/ndsu\\_advance\\_forward\\_leadership/](http://www.ndsu.edu/forward/people/ndsu_advance_forward_leadership/)
- University of Washington <http://advance.washington.edu/>
- Georgia Institute of Tehnology <http://www.advance.gatech.edu/>
- Rensselaer Polytechnic Institute <http://rampup.rpi.edu/>
- New Mexico State University <http://www.advance.nmsu.edu/>
- Iowa State University <http://www.advance.iastate.edu/>
- University of Montana <http://pace.dbs.umt.edu/>

## Additional Information About NSF ADVANCE

### Award Search Program Information

<http://www.nsf.gov/awardsearch/>

### The NSF ADVANCE Initiatives

<http://www.nsf.gov/pubs/2010/nsf10593/nsf10593.htm#reviewcrit>

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# Crossing the Not-So-Great Divide

## Academics as Technical-Communication Practitioners

**Hillary Hart**

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**Abstract.** This keynote was presented at the 2011 annual meeting on October 6–8, 2011, at James Madison University in Harrisonburg, North Carolina. The meeting’s theme for that year was “Academy-Industry Relationships and Partnerships.”

**A**s the current president of the Society for Technical Communication (STC), I am in the unenviable position of working to strengthen the relationship between academic members and the Society’s core efforts, which focus mainly on education for so-called industry practitioners of technical communication. The relationship between the academy and industry has been a subject of debate for decades: How much should the demands of the workplace influence education? What do educators do that training courses do not?

To address this perceived dichotomy, I considered three questions that might help us frame the debate a bit differently:

1. How have academic perspectives on the relationship between technical communication education and the technical communication workplace changed over the years, mainly as reflected in the journal *Technical Communication (TC)*?
2. Where does the new Technical Communication Certification program fit into the education versus training debate?
3. How should STC engage with academic practitioners?

### Academic Perspectives

Using several special issues of the *Technical Communication (TC)* journal as touch-points, I looked at language used to describe those who teach in institutions of higher learning and those who practice technical communication in industry, government, and nonprofits. This informal survey is in no way systematic or proof of anything, but it seems indicative of some



shift in academics' sense of themselves. Until recently, *practitioner* referred only to technical communicators working in industry, government, or non-profits—never to academics. In the 1995 special issue of TC, "Toward 2000: Education, the Society, and the Profession," Saul Carliner used the standard parlance of the day in referring to "practicing professionals and academic faculty" finding "common ground."

By late 2007, the dichotomy of practitioner versus educator still held, but less firmly. In the journal's 2007 special issue on program assessment, guest editors Kirk St. Amant and Cindy Nahrwold referred to the two *branches* of "industry/practitioner" and "academic/educator." Most of that issue's articles, however, avoided the dichotomy by not using the word "practitioner" at all. By November 2011, in the special issue on professionalization, issue editor Nancy Coppola solved the terminology problem by referring to "academic stakeholders of our field" and "professional stakeholders," though wondering how to align the "core competencies" valued by each group (p. 280).

It seems indisputable that technical communication practitioners are in multiple workplaces: the academy, private industry, government, non-profits, and other contexts. Technical communication educators are in fact practitioners. The biggest differences between practitioners in the academy and those in industry, government, and nonprofits are these: the *reward system* (based on publication of research) and the need and ability to look for funding outside the organization. Those differences are not true for all. Some technical communicators in companies or agencies do research and seek funding. But by-and-large, educators spend a greater amount of their time developing programs or lines of research rather than products or work processes or communication delivery systems. They are entrepreneurs in a somewhat different sense. Nonetheless, it beats me why technical communication educators are characterized as in some way *nonpractitioners*. In any case, we have not yet studied what this difference in reward structure means for education-industry partnerships and for what educators need from their professional societies. We need research on the cultural and socioprofessional differences for technical communication practitioners embedded in these various organizational structures.

The educator/practitioner dichotomy has its origins in another one: education/theory versus training/practical skills. Many technical communicators in the field believe that educators focus too much on theory to the detriment of learning skills that will get students jobs. In 2007, St. Amant and Nahwold called for developing an "educational system that provides students with the practical skills ('knowing how') and theoretical knowl-

edge (“knowing that/why’).” Nancy Coppola conceives of “core competencies” as bridging this gulf. In a recent email message to me, she said, “In professional and technical communication, core competencies are those integrated combinations of knowledge and skills that allow evidence-based demonstration of professional accomplishment to stakeholders of our field” (October 2011). Indeed, some of the smartest and most thoughtful academics have spent a lot of time thinking about the core of the discipline—the qualities, modes of thought, and awarenesses that the discipline requires of its successful practitioners (Cargile Cook, 2002; Selber, Johnson-Eilola, & Selfe, 1995; Wilson, 2001).

## **Technical-Communication Certification Program**

First of all, the Certification Commission accepts applicants on the basis of both education *and* professional experience. The evaluators look for a combination of experience and education in a sliding scale. The scale is definitely tipped toward experience because this certification is not an exam and is not geared toward assessing student outcomes. Successful applicants earn a Certified Professional in Technical Communication certification.

Secondly, although STC developed the program, it is administered by a certification commission that is legally separate from STC: the Society for Technical Communication Certification Commission (STCC). Thus, one does *not* have to be an STC member to be certified. Evaluation is based on five top-level areas of practice: user, task, and experience analysis; information design; process management; information production; and information delivery.

If academics think about their work in the light of the five areas, most of what we produce and make happen—research proposals, teaching materials, articles, books, surveys—can be evaluated according to those five areas. The academic workplace is indeed a technical communication workplace. Furthermore, the evaluation is portfolio-based and not just about “products.” Applicants demonstrate competence in the five areas of practice via a packet of materials they produce. Applicants answer questions about their work practice, processes, and production. Even with little nonacademic work experience, applicants with degrees should do well on this *reflexive practice* part.

The fact is that technical communication work is increasingly about becoming part of the business enterprise rather than writing information products. James Conklin and I discovered in our 2004–2006 qualitative research into what the technical communicators we interviewed actually do that at least 83% of technical communicators spend at least 20% of their

work time on teams, and 38% spend at least 80% of their time on teams. (I should note that these survey results are based on a sample of 37 experienced technical communicators.) Basing the STCC certification program on written narratives by the applicant, rather than an exam or a static portfolio of products is, in my opinion, a brilliant move. But the question remains of whether the technical communication certification can evaluate all of what technical communicators do, or even what they mostly do. What about business systems analysts, internal communications managers, community advocacy communicators—all those who do things that don't generally result in any kind of information product? In fact, other disciplinary values are not captured in this professional certification, at least not yet. How, for instance, would the Technical Communication Certification evaluate these educational goals:

- As teachers, academics value “dissent, conflict, and critical failure” for their pedagogical usefulness (Coppola & Eliot, 2007).
- Many academics value *technology criticism* as an important part of the ethical and social component of technical communication courses: “the need to examine the particular forms of power and authority that [computer technologies] embody” (Selber, Johnson-Eilola, & Selfe, 1995).
- Educators wish to imbue students with *agency*—“the ability to act in one’s own interest” and to see oneself in relationship to the organization, the technological enterprise, and the global economy (Wilson, 2001).

From my service on the STC Board of Directors for the past four years, I can tell you that this certification is not intended to be a substitute for an academic degree. Certification is an additional credential. Training for certification should become part of continuing professional development, not a substitute for gaining the education offered by academic degree programs. The certification program will, of course, evolve, just as the field is evolving. Right now it is probably not prepared to evaluate abilities such as systems thinking or flexibility. So, the technical communication certification should help educators think about what is needed for program accreditation. In other words, to prepare students for work as technical communicators, we are challenged to submit our programs to this increasingly broad, complex, and layered evaluation.

## **How should STC engage with academic practitioners?**

I have long heard calls for STC to better support academic members. Let me suggest that STC should better support academic *programs* and the

students in those programs. STC's mission is to support students, as a statement on the STC Academic Database website makes clear. One of the incorporating principles of the Society is to "guide and inform students and to aid colleges and universities in the establishment of curricula for training in the arts and sciences of technical communication." That is a two-pronged charge: to guide students and to aid universities in developing curricula. I would say that STC has always attempted to do the first, but has experienced problems in its relationships with universities.

Recently, STC has in fact developed some initiatives for students. STC membership has a new dues category for postgraduates entering the workforce: New Professional member. The price is the mean of student and regular dues: \$150. You don't have to have been an STC student member to get the rate; it's available to *all* who have been students within the last three years. This is STC's response to efforts of their Community Advisory Committee members, especially Dan Voss and Sara Baca. Secondly, student members can now vote in Society-wide elections.

As for aiding university programs, that effort is complicated by local university politics, the sometimes-negative experience of faculty members with STC, and misunderstandings about STC as a professional association. STC has actually been remaking itself under CEO Kathryn Burton's leadership for the past few years. As it has lost members (as have all professional associations), it has had to become leaner and more innovative in developing new services for members and new sources of revenue. If the certification program is a success, STC will be in a much better position to support all its communities, including the academic one. In the meantime, we can all help the profession and ourselves by contributing to developing the Technical Communication Body of Knowledge (TCBoK) project. And by involving students in this project to vet, organize, and make accessible information relevant to the field. For ideas on how to use the BoK development wiki<sup>1</sup> listen to the recorded webinar presented last November by Stephen Bernhardt and Thomas Barker.<sup>2</sup>

In the end, all of us in the technical communication field need STC to do what nonprofits should do: vet information relevant to the field and provide it in accessible forms as cheaply as possible to all technical communicators, whether members or not. As some may have noticed, *Intercom* is now open to all on the website. If STC can stick with that mission and not go broke, all technical communication practitioners can benefit.

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<sup>1</sup> See <<http://stcbok.editme.com/>>.

<sup>2</sup> See <<http://stc.adobeconnect.com/p6vt7jj3xn6/>>.

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# Moving On and Beyond

## Technical Communication Program Assessment at Michigan Technological University

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**Abstract.** In this article we document a history of programmatic assessment in the Scientific and Technical Communication (STC) program at Michigan Technological University (MTU). More specifically, we describe three approaches to assessment used at Tech over the past fifteen years: system-centered, user-centered, and participatory. We provide this history, culminating with our current practices, so that others may benefit from our experience and develop advanced assessment practices compatible with their own needs and interests.

**Keywords.** programmatic assessment; system-centered, user-centered, and participatory assessment; formative; summative; portfolios; senior surveys; constructing professional identities; user instructions; portfolio presentations; stakeholders; speech act theory

**T**he increasing dynamism of the scientific and technical communication (STC) workplace, the widening diversity of technology, and growing expectations of STC graduates have always posed practical problems for STC programs. Perhaps because the field of technical and scientific communication is user-focused, programs such as ours have examined how well they prepare students to respond to these changes. This inherent reflexivity serves to set apart the field of technical and scientific communication from many fields in the humanities. That is, programs in technical and scientific communication, of their own volition, took the

business of assessment seriously, before demands of accreditation were brought to the fore.

The nexus of three forces, including rapid changes in the workplace, corresponding shifts in design of undergraduate programs, and increasing pressures for assessment, indicate that attention to not only designing an undergraduate program, but also designing the assessment of such a program, is attention well-deserved. A problem for educators in the field is that the diversity of undergraduate programs does not lend itself to sharing approaches and practices for assessment. Thus, the reflexivity within our many undergraduate programs—a real strength for the discipline—is also a problem for developing rigorous and theoretically savvy approaches to assessment. If specific assessment practices are not easily developed, the next most useful strategy is to develop metalevel approaches to assessment, such that programs across our field might better understand how reflexivity may best be adapted to their particular situations.

In this article, we document a history of programmatic assessment in the Scientific and Technical Communication (STC) program at Michigan Technological University (MTU). More specifically, we describe three approaches to assessment used at MTU over the past fifteen years, each reflecting and inscribing attitudes toward the programs, the students, and the communities in which they reside. We characterize the approaches as system-centered, user-centered, and participatory. We borrow terminology from technology design contexts to describe parallel developments in programmatic assessment at our institution. We provide this historical account of development so others might benefit from our experience and develop advanced assessment practices compatible with their needs and interests.

In the context of this article, we use the term *assessment* to refer to formative assessment. That is, we use assessment to help us better understand the strengths and weaknesses of the existing program. Information collected in the assessment process is used to improve various aspects and components of the program such as course design and redesign, pedagogy, internships, graduation requirements, and extracurricular learning opportunities for students. As such, formative assessment is different from summative assessment, which serves a more evaluative purpose by comparing the performance of a particular program to predetermined standards typically imposed by decision-makers outside the program (Harlen & James, 1997).

With these distinctions in mind, we present the historically situated shifts from system-centered, to user-centered, and finally to participatory assessment procedures.

## **System-centered Approach to Assessment**

To make our historical progression of assessment approaches clear, we first describe exactly what we mean by *system-centered*. Most everyone is familiar with system-centered technologies, even if we don't refer to them as such: if you've ever flown on a commercial airplane, you've realized that the system is the center of each decision-making process and the user is a terminal consideration. Robert R. Johnson (1998) has described system-centered technologies:

System-centered technology. . . locates the technological system or artifact in a primary position. There is no need for the user to be involved with system or artifact development, this perspective suggests, because the system is too complex and therefore should be designed and developed by experts who know what is most appropriate in the system design. (p. 26)

In system-centered theory, the designers of the system are the only participants in decision-making processes. What about the users? In Michel de Certeau's (1984) distinction between strategy and tactic, users must affect change in a system-centered environment by using tactics. "The place of a tactic belongs to the other" (p. xix), and users are clearly *other* in any system-centered environment. Employers and students, or users of the university system, have needs and certainly interests that diverge wildly from the focus of the system. Any input from the users about the necessity of use must take the shape of de Certeau's tactic. In the first approach toward assessment, system-centered, this tactical approach is evident.

Examining the history of scholarly trends tends to be treated with either literary sentimentality for days-gone-by or resentment about what those darn English teachers did to us. Here, examining the historical grounds of assessment as system-centered allows researchers and program developers not only to judge history but also to gauge current assessment practices within a clear historical context.

### **What Was the Situation for Assessment in 1996?**

In 1996, assessment of the STC program at MTU was driven primarily by the STC committee's desire to enhance the degree offered by the institution; it was an attempt to gauge the strengths of the STC program and address any weak links among the aims of the program and the students' lived experiences in the STC program. Graduating STC students were given two instructions: to put their best work in a portfolio and to turn it in. First, they were told simply, "Put your best work in a portfolio." And as educators



we can see some obvious values in this: getting students to think about what their “best” work was; seeing “best” examples provided a means to assess the rigor of the program; comparing “best” examples helped determine how needs were being addressed for students with wildly varying career goals and other concerns. Unfortunately, “Put your best work in a portfolio” was less productive than one might have hoped. The assignment didn’t encourage thinking about what “best” meant: best for what situation? For which audiences? To showcase which skills? For what purpose? In what context? With what expectations? None of these questions were addressed.

The second assessment portfolio directive, simply: “Turn it in,” wasn’t much help either. Details about the deadline and location for submission were provided. But the real problem was these instructions didn’t answer the critical question that rhetors have faced for millennia: What’s at stake? The four years of coursework prior to the portfolio had been built on giving students a habit of mind that was critical, that looked deeper into questions, and that encouraged careful analysis followed by clever production. And the terminal assignment was to put work in a portfolio and turn it in—you don’t have to know college students well to imagine that their first response was, “Turn it in, *or what?*” Assessment in the system-centered approach was so system-centered that the assessment instructions neglected even to treat the participants as users with a range of choices to make.

### **What Does Speech Act Theory Suggest about Assessment?**

David N. Dobrin’s (1989) work with speech act theory as a branch of human relations indicated that a speech act needs to meet two universal conditions (among other specific conditions) to avoid being considered defective: the speech act needs to be nonobvious and it needs to be relevant (pp. 16–20). Because assessment prompts can be considered both instructions as well as speech acts, let’s conditionally examine system-centered assessment.

In terms of how system-centered assessment works (or does not work) for undergraduate STCs, the instruction to “Put your best work in a portfolio” violates the nonobvious condition because without any specifics about the audience, purpose, and context for which the portfolio would be reviewed, the student is left to guess that they probably shouldn’t put their worst work in the portfolio. In short, not enough information is provided in this prompt to do anything other than literally place stuff in a binder—an instruction that is carried out just as well by a cardboard box with “Course ### Portfolios” written on it in crayon.

The second directive, “Turn it in,” violates first the nonobvious condition because what use is an assessment portfolio that isn’t turned in? Second, it violates the relevance condition because without any indication of stake, the question winds up being irrelevant not only to the STC students’ situation but also to any situation. The directive includes no consequence, such as, “Turn it in or you won’t graduate,” “Turn it in or you won’t fully realize your educational potential,” or even “Turn it in so we have something to remember you by.” Even good-natured, hard-working students who perceived some use in the assessment exercise were left to ask, “Well, this might be important, but why do it *now?*”

### **So, What Did the Portfolios Look Like?**

The portfolios did not look good. Here’s what we mean: some students had been indoctrinated not only with a critical education in STC but also with a healthy fear of institutional hierarchy. These students not only completed a portfolio containing work they guessed was their best—as judged by some universal standard—but they also turned it in for fear that some unseen consequence might exist. But even these portfolios were developed without a sense of purpose, without any understanding of context, and thus they failed to develop any argument about what the students had learned during four years of coursework—except the fear of institutional negative feedback.

More students took the total lack of stake in the portfolios as an indication of the institution’s level of interest in the portfolios. That is, if the assessment clearly wasn’t important enough to have any consequence, then it wasn’t important enough to put thought into. One student in particular took the assessment quite literally when he placed some work in a three ring binder. The binder was borrowed from a ROTC cadet and described the maintenance procedures for armored tanks. Rather than hole-punch his work, the student simply placed the documents within slippery plastic covers. The table of contents was a poem written for a creative writing class. No page numbers were included. In short, the portfolio was an unorganized repository for whatever random STC work had come off the printer in the college computer lab. The student graduated—with honors. After all, the STC program had taught him to assess the rhetorical situation, and here the situation for an assessment portfolio just plain didn’t exist.

### **What Was the Workplace Response?**

To some extent, participating in a system-centered environment such as higher education encourages system-centered thinking, perhaps the most insidious affect of getting an STC degree in this precurrent/traditional approach. That is, the formalized procedures for degree earning are regularly

perceived as inflexible systems even in the most reflexive programs. In addition to the structure of the undergraduate degree program, we argue that the system-centered assessment actually served to enhance an understanding perception that the best approach to problem solving was not to consider users' needs. The terminal formal experience in the degree program at MTU is to participate in some sort of assessment process. This process serves not only needs related to assessment but also, we argue, the situation of any assessment processes at the terminal stages of degree completion means that, for students, assessment will be seen as the paramount application of their degree. Put another way, the requirements for assessment have been seen as the capstone, the pinnacle example of what is required of STCs. If our assessment required students to write and act out a soliloquy, then the message sent to undergraduates is that the previous four years of education should prepare one to produce soliloquies as a professional STC.

The same student who turned in an old ROTC binder stuffed with random college assignments took this approach of not considering the user/audience with him to his first job. The work started when the Vice President of the mid-sized Midwestern company invited the STC graduate to identify problems in the company's communication and organization structure. The STC student wrote up a six-page document indicating problems in communication at almost every level in the company. Good work. Next, the vice president asked the STC, because he apparently didn't think the company was doing things right, would he please resign? It's apparent that for this STC *putting your best stuff out there* isn't by itself satisfactory for all users—especially in rhetorical situations with complex purposes and real consequences.

We're not arguing the assessment process that didn't acknowledge users is responsible for this unfortunate chain of events; however, had the STC been encouraged to consider the user more with the terminal assignment, perhaps thinking about the reader would have been a part of his writing in the workplace.

We've learned that the system-centered approach to assessment didn't help the institution because it lacked a rhetorical reason for participants to turn in work that would provide the basis for any assessment. Further, the system-centered approach to assessment didn't use its position as a capstone to reinforce in STC students the attitudes and habits of mind necessary for productive working lives.

## **From System-centered to User-centered Assessment**

With regard to assessment, and perhaps only with regard to assessment, the authors here contend that graduating STC students are *users* of the sys-

tem rather than just students. User-centeredness has been defined as emphasizing “people rather than technology” (Norman & Draper, 1989, p. 2). A user-centered design thus makes it easier for users to learn what they need to know about technology to make productive use of it. Once they learn a technology, people should be able to easily remember how to use it after being away from it and to use it without learning it once again (Nielsen, 2005). User-centered design should provide people with a “pleasurable sense of empowerment” (Norman, 2011, p. 1). But what makes a design understandable, easy to use, memorable, and satisfying? We contend, along with Donald Norman (1990), that one important contributing factor is visibility: “The relationships among the user’s intentions, the required actions, and the results are sensible, nonarbitrary, and meaningful” (p. 22). In this section, we describe two steps we took to increase the visibility, thus the user-centeredness, of assessment for STC at MTU.

### **What Did Portfolio Assessment Look Like in 2004, and Why?**

When a new STC program director arrived in 2004, the portfolio assessment remained system-centered. Ironically, however, it did not serve the system or programmatic needs because links between learning outcomes and assessment were invisible. At least one reason for the portfolio assessment’s shortfalls was that the process defied an important design principle: visibility. “Everyday things,” Donald Norman (2011) argued, should be designed so that they have “an underlying logic, a foundation that, once mastered, makes everything fall into place” (p. 1). Further, users should easily be able to make sense of “this underlying structure” (p. 2)—the parts and how the parts function together to serve the users’ needs. Complexity, in itself, Norman posited, is a part of everyday life and the systems that serve its social, political, and economic aims: “We will see order and reason in complexity once we come to understand the underlying principles” (Norman, 2011, p. 1). Making those principles visible allows users to understand, access, and use them to their advantage.

Although Norman’s design work commented primarily on manufactured items such as computers and their interfaces, we contend that it offers valuable insights into social systems, such as assessment, as well. A computer consists of multiple parts working in complex relationships with one another. Interface designs serve to make the complexity of computer technology understandable to users by indicating how its functions apply to the users’ needs and how users can apply those functions to accomplish their own ends. Programmatic assessment is a system so comprised, the multiple parts being educational goals, learning outcomes, assessment

instruments, and those people who teach and learn. The portfolio assessment practices at our institution appeared arbitrary because no interface existed for administrators, faculty, or students. When complexity appears random, Norman (2011) argued, "we have reason to be annoyed" (p. 1).

Such was the new director's response. She found, for instance, no information indicating connections between programmatic or pedagogical goals and portfolio assessment. She was told the program kept student portfolios for three years after they had been submitted, but was given no reason why they were kept, or for that amount of time. Apart from a list of required portfolio entries inventorying students' writing, design, and oral work, very little documentation existed indicating what skills and abilities the portfolios were to assess, to whom they were to be addressed, or how they were to be organized or designed. In some cases, the list itself was confusing. One required portfolio entry was to demonstrate students' "oral capabilities," though how that was to be accomplished was unclear. Nothing indicated that students should record a speech and include the recording in their portfolios. Nothing indicated that students might prepare presentations for the director, the program's steering committee, or STC faculty. What the director found in the portfolios, instead, were printouts of PowerPoint slides, presumably used in oral presentations students had given as undergraduates.

In 1996, a 27-question, anonymous senior survey was added to the portfolio requirement, the purpose of which, again, was not visible. Here, students were asked, first, to report their demographic information, such as ethnicity and age. No programmatic objectives, however, existed to increase ethnic or age diversity, so answers to these questions appeared useless except to describe and report the status quo. Students were also asked to use Likert scales to quantify their learning, as well as their relative satisfaction with the classes they had taken and the program in general. So, for instance, to the question "What percentage of communication-rhetorical skills that you now have do you consider to have been taught in class?", students could respond "80-100%, 60-80%, 40-60%, 20-40%, 0-20%." But, because no learning outcomes existed for the kinds of rhetorical skills these classes should teach, answers to this question, too, were pointless. The survey did include several open-ended questions, such as, "What do you perceive as the program's strengths," or, "If you had it to do over again, would you major in STC?" But these questions stood alone, without explanation of the program's pedagogical objectives or students' goals. Without visible links between these questions and broader, more conceptual, learning outcomes, the survey offered little useful information to the new direc-

tor about the successes and shortfalls of the program. She also discovered that the portfolio assessment process, with its senior survey, annoyed and alienated students.

Although students' particular dissatisfactions and problems with assessment varied widely, the most compelling explanation for why they persisted was consistent: the links between portfolio assessment and student-user benefits remained invisible. Students continued to meet the requirement to turn in a portfolio of their "best work," but did so without any guidance about how that work should be selected, how many samples should be included, or how the portfolio should look. Because no description existed of what the samples should represent or what purposes the portfolios served, the resulting products ranged from manila folders to scrapbooks or photo-albums filled with what appeared to be unrelated coursework papers of varying lengths and in varying numbers, along with one or two sets of photocopied PowerPoint slides.

In talking with students about their portfolios, the director found, not surprisingly, that most considered portfolios afterthoughts to graduation, an item to be checked off their graduation requirements list for the benefit of the program and with no clear advantages for them. Because portfolio instructions did not ask students to discuss the work they included, they offered students no opportunity to reflect critically on what they included and little opportunity to consider how the activity might have shaped their professional identities. Portfolios were kept for three years, so students could not use them to interview for jobs or graduate school admission. After three years, most program graduates had forgotten about their undergraduate portfolios or had no use for them except as keepsakes, so almost all were discarded.

When interviewing graduating seniors about their experiences in the program, the director identified several other significant effects of the program's system-centered and unexplainable assessment practices—all of these detrimental to graduating seniors and ultimately the program. Without a venue in which to discuss the learning their portfolios represented, students were hard-pressed to explain how they might use them in their lives after graduation. Many described their skills as static and stable, their professional identities as uncomplicated—a Web designer or a documentation writer, for instance. Other discussions indicated that some students did not know how to describe their professional identities. When asked to explain what technical communicators do, one graduating senior said he did not know. Given that the rapidly expanding global and networked economies of the time called for technical communicators to be

problem-solvers, boundary-spanners, and model-builders, such responses fell far short of indicating whether students understood the adaptive and crossdisciplinary nature of their work.

In short, then, portfolio assessment continued to fail in 2004 because its purposes remained invisible to all users. Students viewed the portfolio as benefitting the program but having nothing to do with them or their future lives. Faculty assumed that results would be written up for institutional review, but did not expect any programmatic changes to occur as a result. And the new director had come to realize that portfolios and senior exit surveys functioned only to maintain the program, not to assess its successes and shortfalls and certainly not to improve it.

### **How Did We Move to User-centered Portfolio Assessment?**

Getting from system-centered to user-centered assessment took two distinct steps<sup>1</sup> to make the senior portfolio assessment sensible and meaningful to the users who are most invested in it: the students, the director, and the STC steering committee—thus ultimately the program. The steps were developing user instructions and instituting portfolio presentations.

#### ***User instructions***

The first step the director and steering committee, comprised as a revision committee, took was to write user instructions. Addressed primarily to students, this document also offers a written record of programmatic practices to program directors, steering committee members, and faculty as they come and go. Faculty may use it as they design and teach their courses because explicit learning outcomes included in the document make visible the interdisciplinary and rhetorical nature of the program. The document thus functions both as instructions in the moment and as a pathway for new continuities in the future. Although these instructions include information about every aspect of the senior portfolio, from when it is due to what consequences ensue if it is not submitted, in this discussion, we focus on instructions about the portfolio itself and a professional development history document.

The revision committee's primary aim in this first step was to make visible the use to which portfolios would be put. But portfolios served two sets of users with two very different applications: the director and steering committee would use portfolios to assess the work of the program and to design new curricular directions; students would use them as a segue

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<sup>1</sup> A third step, revising the senior exit survey, will be discussed as a move toward participatory design later in this article.

between their academic preparation and their next steps to the workplace or graduate school. If used for programmatic assessment, the portfolios would best be addressed to faculty and would inventory what students had done during their time in the program. Assessment applications also suggested that portfolios might be kept for an extended period of time.<sup>2</sup> If, on the other hand, students used them to secure employment or admission to advanced study, portfolios would need to be returned quickly. They would also need to go further than inventorying skills; they would need to demonstrate how those skills might be applied in the future.

Tapping technical communication's common wisdom, the committee wrote instructions that indicated multiple audiences—primary and secondary—for the portfolios: "The primary audience is the program's faculty and advisory board members. The secondary audiences consist of potential employers or graduate school admissions officers" (see Appendix). The revision committee did not, in any way, view this move as sidestepping the conundrum of multiple audiences. Instead, they saw it as a way to underscore audience complexity and to offer students the opportunity to grapple with it in their own ways. To address issues of timely return, the committee agreed that portfolios would be kept for two weeks, enough time for a group of normed readers to review and score them. At that point, the portfolios would be made available to students. Members of the STC program have been surprised and gratified that many graduating seniors have made two copies of their print portfolios, donating one of them to what has become an ongoing collection, which is displayed publicly and is available for upcoming students to peruse as they prepare their portfolios.

Another goal of the revision committee was to make clear that the program and faculty understand the portfolio to be a professional and public document. Describing it as "a compilation of the written, visual, digital, and design work that represents you as a professional communicator" (see Appendix) eliminated the manila folder, scrapbook, or album designs that the program director had encountered early on.

To make clear that the personal infuses the professional, the committee indicated that the purpose of the portfolio is to "demonstrate who you [*italics added*] are as a professional communicator" (see Appendix). An important outcome has been that anyone who looks at current portfolios can conclude that, although the nature of technical communication is interdisciplinary, the field also calls for personalized particularity and

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<sup>2</sup> Although encouraging students to design digital portfolios, the program requires students to submit print portfolios.



specialization. Without a requirement that they submit a certain number of written, visual, digital, or design samples, students proportion their submissions in keeping with their current and future interests. Students who view themselves as website designers submit portfolios proportioned to foreground their skills in this area, though they might also include samples of their digital photography. Other students targeting documentation or writing as a future career might also include samples of their visual design work. This mix represents both the interdisciplinary nature of the program and the field, as well as the particular professional identities of individual students.

Finally, the instructions direct students to include a 750–1000 word description of their growth as professional communicators. Titled “professional development histories,” these documents are intended to go further than conventional reflective or transmittal letters by not only confirming what students have learned in classes and other contexts, such as co-ops, but also by encouraging them to consider what they might do with that knowledge. Such analysis offers students ways to assess their work contextually and to view it as dynamic, changing, and expanding over time. They thus gain a fuller and more complex understanding of what they know as they transition from school to workplace or graduate school and a way to articulate the potential applications of that knowledge.

Intended to address primarily students’ needs, these professional histories contribute substantially to a programmatic understanding of what is done well and what could be done better. Because seniors describe the contexts in which they have developed professionally, their histories offer otherwise infrequently realized opportunities for faculty to see how the theories, skills, and abilities they teach are used directly or re-interpreted as students apply them in the workplace or professional social settings.<sup>3</sup> Gaining these insights does not mean faculty change their pedagogy to match what industry demands, but rather they can come to a more finely grained understanding of the implications of their teaching, both its successes and its shortfalls. In this way, faculty can infuse the curriculum with fresh ideas and refine it.

### **Portfolio Presentations**

The second step toward user-centered assessment entailed adding portfolio presentations to the graduation requirements. These 20–30 minute taped presentations place student needs at the center of assessment

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<sup>3</sup> Members of the Society for Technical Communication’s Student Chapter, for instance, use writing and design in informational projects and marketing campaigns.

because the portfolio is not the subject of their presentations. Instead, it is a means for students to represent their professional identities: who they are as professional communicators and how they embody the skills and abilities that constitute those identities. The purpose of these presentations, in other words, is not for students to walk the audience through their portfolios page by page, listing their projects and confirming the skills they have acquired. Instead, the purpose is for students to demonstrate how their portfolios reflect their growth as professional communicators and how the documents showcase their expertise. Students design the look of their portfolios accordingly, with a resulting explosion of innovative styles and fresh approaches—a far cry from manila folders and scrapbooks. They also chronicle key components of their development by drawing on a range of experiences, including classes, co-ops, internships, and their work with professional organizations or on the job. Students benefit from this experience because it offers them ways to consider their learning in larger contexts than the program and to imagine how they might use it in the future. It encourages them to consider their learning as a complex interplay of many moments, not necessarily as a linear progression from novice to expert.

The nature of these presentations is also informed by an interest in students as users of the program. They have enrolled in the classes, taken program-sponsored co-ops, and participated in its professional social organizations. What have they gained—or lost—from these experiences? And how would they explain that in relationship to their professional preparation?

To answer these questions, the revision committee decided presentations should place students in as realistic a rhetorical situation as possible. Presentations should insist students publicly explain how they understand what it means to be a professional communicator to audiences representing varying knowledge levels about the field and with different backgrounds and interests. The committee thus decided to extend invitations to students' families and friends, along with all interested faculty, students, and the general public. Further, the committee decided, the presentations should be polished but also open to audience interaction. Publicly responding to a parent's question, "What is rhetoric, anyway, and how does it help you be a better website designer," is a far cry from checking an answer to "What percentage of communication-rhetorical skills that you now have do you consider to have been taught in class?" Whatever the answer to the first, it will reveal a great deal more about what a student has learned, absorbed, and can use than any answer to the second. Beyond the opportu-

nity for students to address questions about their learning, the committee saw invited audience members as users, or potential users, of the program. Parents and family are certainly users because they invest in their students' education, whether emotionally or financially, supporting them in a major many have never heard of. They have earned the right to join in a critical discussion of what technical communicators do. Many local businesses already hire STC students, either as interns or upon their graduation, so they, too, are considered users. Inviting them to portfolio presentations acknowledges their investment and offers them insights into why that investment is worthwhile. Interested faculty and community members are viewed as contributors to lively portfolio discussions, as well as potential users of the program. If, as a result of portfolio presentations, faculty across campus and within the program's department<sup>4</sup> come to a more nuanced understanding of what technical communication is, the committee speculated that they might develop an appreciation for the possibilities of joint interdisciplinary projects, both scholarly and pedagogical.

The result of these two steps toward user-centered assessment is that, in four years, the STC senior portfolio assessment began to focus on people. User instructions make it easier for students and faculty to learn what they need to know about the portfolio process and to use it to accomplish their own distinctive—but intersecting—ends. All users, whether inside or outside the academy, have expressed satisfaction with the portfolio presentations because they empower students to articulate their emerging professional identities, faculty to consider their roles in shaping those identities, and community members to make sense of them. Although portfolio assessment is, thus, more sensible and meaningful than it had ever been, and to a larger group of users, in 2008, the program director and committee wanted to push involvement even further. Consequently, the program began to move from user-centered to participatory assessment, and we next turn to that development.

## **Toward a Participatory Approach to Assessment**

### **What is Participatory Assessment?**

Participatory assessment is a model Michael Salvo and Jinfang Ren (2007) proposed as an alternative to the traditional expert review model of writing program assessment. It employs and applies “the methods, processes, and tools of participatory [technology] design to the discursive technological artifact” (p. 425) of writing curricula and programs. Drawing on Donna

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<sup>4</sup> This program resides in a Humanities department that represents a wide range of disciplinary interests.

Haraway, Salvo and Ren view the curriculum as “a social or discursive technology” that “creates relationships among stakeholders and formalizes relationships among agents, human and nonhuman factors, within the institution of the university” (p. 425). Salvo (2001) described participatory technology design as a process of designing *with* users rather than designing *for* them. Similarly, central to participatory assessment is the active participation of users throughout the assessment process in both planning and implementation. Participatory assessment is thus firmly contextualized in particular programs and requires that “participants constantly revise their understanding of the current state and desired state [of those programs] based on ongoing conversations among one another” (Salvo & Ren, 2008). *User* here refers to stakeholders, defined by James E. Post, Lee E. Preston, and Sybille Sachs (2002) as the individuals and constituencies that are voluntarily or involuntarily the potential beneficiaries and/or risk bearers of an organization. In other words, thinking broadly about assessment means we also think more broadly about what it means to be users. In an applied field such as scientific and technical communication, program assessment would benefit from the active participation of both academic and industry stakeholders.

### **Who Are Our Participating Stakeholders?**

Because participatory assessment involves more direct involvement with stakeholders, it is worthwhile both in practice and in this article to delineate who we mean to include. When we started to move toward a participatory approach to program assessment in our undergraduate program in Scientific and Technical Communication in the fall of 2008, we included both internal and external stakeholders in our particular programmatic context. Participating stakeholders include the following groups.

#### **Students**

The program serves the needs of both STC majors and students from other academic programs and departments. Most students are domestic, though a few are international students. The nonmajors come from a broad range of disciplinary backgrounds, particularly engineering and science disciplines.

#### **Assessment Researchers (STC Committee)**

The STC committee is the undergraduate steering committee in our home department. Its main duty is curriculum and program design at the undergraduate level. Assessment efforts are typically initiated by this internal group of stakeholders. In the participatory culture, the committee plays

the role of a coordinator who invites and facilitates participation of other stakeholders. It also engages all participating stakeholders in multivoiced conversations through both direct interactions, such as face-to-face meetings, and indirect interactions mediated by written documents and other artifacts available to stakeholders, such as program brochures, posters, guidelines, and the grading rubric for senior portfolios posted on the program website; senior portfolios from previous years stored in the departmental library; and so forth.

### **Program Director**

The director of the STC program is also the chair of the STC undergraduate steering committee. She leads and guides the committee's collective effort to involve multiple stakeholders in both the planning and execution of various assessment initiatives.

### **Advisory Board**

A panel of technical communication practitioners, the advisory board has actively participated in the assessment of our undergraduate curriculum by offering valuable input and feedback as industry representatives. In addition to meeting with program administrators, faculty and instructors, and undergraduate and graduate students as part of their annual on-campus visits, board members also communicate with the STC committee about current and emerging trends and developments in communicative practices in the workplace.

### **Instructors**

Technical communication instructors in the program include tenured and tenure-track faculty members as well as graduate students in rhetoric and technical communication. Faculty members teach a combination of classes for STC majors and the multimajor technical communication class open to other academic majors. Graduate student instructors teach the multimajor class only. Graduate student instructors are required to take a practicum with the director of the program concurrently when they are teaching the multimajor class.

## **Why Are We Moving Toward Participatory Assessment?**

Participatory assessment does not depart from the user-centered approach to assessment discussed in the previous section; instead, it supports, reinforces, and furthers our collective efforts to place users at the center. It enables inclusion and fair representation of multiple stakeholders' voices in ways that accommodate diversity and address conflicting goals

and agendas (Anderson, 1995). As Kirk St. Amant and Cynthia Nahrwold (2007) noted, professional and technical writing is constantly caught up in the perceived tension between academy and workplace. Academic stakeholders, such as faculty and instructors, and workplace stakeholders, such as prospective employers who hire graduates of technical communication programs, do not always agree on a shared set of criteria for evaluating the practice and teaching of technical communication. Unlike traditional objective-oriented and criterion-based approaches, participatory assessment's collaborative process creates opportunities for two-way exchanges of expertise between the academy and the workplace envisioned by Carolyn Miller (1989), Louise Rehling (1998), Stuart Selber (1994), among others. The program derives authority, agency, and credibility from the juxtaposition of academic and industry perspectives, leading to creative solutions and innovative suggestions for improvement that may not otherwise be possible. Further, when all stakeholders are involved, they are more motivated to effect the proposed changes emerging from the assessment.

Participatory assessment also allows for inclusion of voices that tend to be overlooked in traditional approaches to assessment, particularly the students' voices. Students regularly take tests and surveys as *human subjects*; rarely are they offered opportunities to collaborate with the expert reviewer or panel of reviewers in deciding what should be tested or what questions should be included in performance tests and attitudinal surveys. In short, their voices are either not heard or heard indirectly through the *expert*. By contrast, in the participatory model Salvo and Ren (2007) proposed, students, along with other participating stakeholders, such as instructors, administrators, and industry representatives, "are all participants and therefore experts with differing perspectives on a professional writing curriculum" (p. 426). These participants are considered research partners who collaborate with the assessment researcher rather than "resources the researcher 'taps into'" (p. 436).

## **What Have We Achieved So Far in the Participatory Culture?**

Our program's assessment builds on and extends the participatory model in our particular context. Instead of planning a semester-long or year-long project with a start and end date, we have built a participatory culture in which curricular and program assessment becomes an integral part of the routine operation of the program. Enumerating every aspect of the program that has benefited from ongoing assessment in the participatory culture is beyond the scope of the article. Here we offer two highlights as illustrative examples of the *what* and *how* of participatory assessment implemented in our undergraduate program.

## **Review of the STC Exit Survey**

At the end of their last semester in the program, graduating STC majors complete an “exit survey” that asks about their experience in the program and their future career plans. The survey is part program assessment in that it examines both curricular and infrastructure issues. In fall 2008, two graduate students—one was also the instructor of the multimajor technical communication class serving the needs of students from all over the campus—and the director of the undergraduate program in technical communication started a process to redesign the exit survey with participatory assessment in mind.

The need to redesign the exit survey was identified and confirmed in a series of STC committee meetings in spring, 2008. By that time, the program had made significant progress from system-centered toward user-centered assessment. However, one major instrument used in our programmatic assessment, the exit survey, remained system-centered. As one might guess, the 27-item questionnaire resembled a comprehensive exam testing students’ familiarity with various components of the program. Instead of being allowed to answer each question in an open-ended manner related to their own learning experiences, students were required to choose among a range of five-to-eight predetermined options. For example, one question asked, “What do you perceive as the program’s weaknesses,” but the answer options mandated student responses rather than encouraging them to describe what they felt were real weaknesses of the program. Other questions asking students about their thoughts on the program were all structured in the same way. These questions made it easy for the system designer to code the data collected within the parameter of the existing system, but student responses failed to represent the actual experiences they had as users and stakeholders of the program.

The system-centered nature of the old exit survey was also evident in questions quantifying student learning in an abstract manner. For example, in assessing students’ learning of rhetorical skills, one question asked: “What percentage of communication-rhetorical skills that you now have do you consider to have been taught in class?” Options available to students were 80-100%, 60-80%, 40-60%, 20-40%, 0-20%. (Yes, we know such a strangely worded question and out-of-order answer choices seem odd in a STC program.) Again, the system, or existing program, concerns were placed at the center of the survey instead of the actual needs and experiences of student users and stakeholders.

One of the graduate students working on the exit survey revision made the following comment:

I don't remember how I answered these questions. They make no sense. How do I know how much of my rhetorical skills came from my technical communication classes? 60%? 80%? How do I know? And my calculator is not gonna help. Looks like they [designer of the original questionnaire] are more interested in number crunching than in helping the committee get to know their students. I am glad we are redesigning it now.

## **Redesign the New STC Exit Survey**

The exit survey redesign project started at the beginning of fall, 2008, and the current version of the redesigned questionnaire was adopted at the end of spring, 2009. In our newly emerging participatory culture, program stakeholders worked together to develop a shared, negotiated understanding of the project goals *in situ*.

Two graduate students played key roles in coordinating initial discussions. Drawing on resulting stakeholder input, they pinpointed key words—"rhetorical skills," for instance—in the questionnaire identified as representing what the program offered or might offer undergraduates. They then developed a series of short-answer questions prompting students to reflect on what they had learned and should have learned using the lenses of these key words. They followed up with additional questions that opened up other lenses not included in their questionnaire, such as "please share with us your favorite (most important? most vivid?) STC experience."

More importantly, under the guidance of the committee, the two graduate students helped negotiate different—and sometimes conflicting and competing—agendas among the participating stakeholders. For example, all stakeholders agreed that 1) questions about students' knowledge of rhetorical principles should be included in the questionnaire; 2) such questions should be open-ended and solicit qualitative feedback. However, they disagreed on how to find out whether the program has done a good job of teaching rhetorical principles and skills. A few undergraduate STC majors suggested a straightforward question, such as, "Do you feel that you have developed a good understanding of rhetorical theories and principles?"

Although the question was easy to understand (unlike most questions in the original questionnaire), faculty in technical communication were concerned that such a question might encourage a simple yes/no answer without much thinking on the part of survey respondents. Several graduate students suggested listing a few rhetorical concepts and asking



students to briefly explain the use of each. Undergraduate student representatives voiced concerns that the task of explaining would be misleading and intimidating because students might feel they were taking an exam on what they knew. Through multiple rounds of face-to-face and email discussions, keeping in mind the educational goal of the program and thinking in the shoes of practice and action-oriented undergraduate students, the two graduate students developed the question about rhetorical skills as follows:

Please circle the concepts you feel comfortable with, enough that you could teach them to another person: subject, audience, purpose, tone, context, ethos, pathos, logos, usability, rhetoric, persona.

Again, the list benefited from the input of multiple stakeholders. Not only does the question serve the committee's need to find out the adequacy of the teaching of rhetorical terms (if not principles) in our classes, it also encourages students to reflect on what they know, how much they know, and whether they are able to apply what they have learned outside classroom contexts.

### **Develop Student Panel Presentations to Advisory Board Members**

One-hour, student panel presentations to the advisory board was an initiative first piloted in the spring of 2010 and hosted again at the 2011 board visit. In response to the director's email invitation, student volunteers participated as panelists from five classes: "Technical Communication in Global Contexts," "Risk Communication," "Organizational Communication," "Multimedia," and "Website Design."

Students from each of the five classes presented one particular project they had done in the class they represented. They talked about the communication problems they had addressed, the intended audiences and users of the project, its context and purpose, how they had engaged with the problem, and what they had produced.

The students' panel presentations helped connect current students with workplace practitioners. Students received immediate feedback from these veteran technical communicators on their work-in-progress. This event and the follow-up conversations with board members also helped the STC committee involve industry representatives in informal assessment of not only particular student projects but also the overall effectiveness of the program's effort to prepare students for production-oriented project work. Conceived broadly, the student panel presentations, along with other events featured in the campus visits, help bridge academic and industry

perspectives in curricular design and program assessment by creating a space for direct contact and responsive conversations among program administrator and educators, students, and workplace practitioners.

## **How Have Stakeholders Benefited From Participating in Programmatic Assessment?**

All participating stakeholders contribute different types of information regarding the relative strengths and weaknesses of various aspects of the program, which leads to specific recommendations for strengthening the program. Central to the process is reciprocity: the growth of the program benefits from the combined expertise of multiple stakeholders, and the stakeholders—brought into conversation with one another about their stakes in the well-being of the program—develop an informed understanding of their own and other stakeholders' needs as well as the values and assumptions underlying these different, and sometimes conflicting, needs and expectations.

Specifically, STC majors develop a critical vocabulary to articulate their needs as users of the program as well as their identities as up-and-coming professionals in scientific and technical communication. Students from other programs and departments gain an informed understanding of the relevance and usefulness of technical communication in their own disciplinary and professional contexts. Program director, instructors, and professional staff get direct feedback from students about their learning needs and experiences as well as input from industry representatives about core competences expected in today's workplace. The academy stakeholders can use this information to help them facilitate students' school-to-work transitions. In short, incorporating participatory assessment into the routine operations of our program as an ongoing collaborative effort has helped us build sustainable programs responsive to the needs of multiple stakeholders as well as strengthen stakeholder relationships in the long run.

## **Conclusion**

The historical progression documented in this article demonstrates how STC programmatic assessment at MTU has moved from an invisible and unresponsive system to one that is visible and sensible, thus addressing the needs of graduating seniors, the program, and the larger community. Multiple stakeholders are increasingly involved in building a participatory culture to open spaces for multilayered and multivoiced conversations and negotiations among stakeholders regarding various aspects of

the program. In this participatory culture, programmatic assessment has become for us an on-going collective effort leading not only to a sustainable program but also to sustainable stakeholder relationships. We plan to continue the participatory movement and to develop strategies to further engage external stakeholders, particularly workplace practitioners. We hope our experiential and reflective accounts of this three-phase movement will offer a model for other program administrators and assessment researchers to develop innovative approaches in their programmatic and institutional contexts.

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## **An Editorial Introduction: A New Curriculum Showcase Section for *Programmatic Perspectives***

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As Karla Saari Kitalong (2009) pointed out in a previous editorial from this journal:

Everyone reading this editorial today knows that *Programmatic Perspectives* publishes scholarship that theorizes and thereby promotes sustained attention to the disciplinary knowledge-making dimensions of technical communication program administration. The idea of mutual mentoring underlies the work that this journal does to help shape a new scholarly space. (p. 211)

It seems as though it was only a matter of time before space was created in this journal to promote our curriculums as well, and the range of activities and approaches we've developed through years in the classroom and as administrators. Building on aspects articulated in the vision for this journal—collaboration, theory development, relationships with authors, and the online venue—this editorial introduces a new section of the journal called *Curriculum Showcase* (CS). This section aims to provide a peer-reviewed venue for teachers *and* administrators to publish work that discusses and acknowledges the intellectual aspects of designing, theorizing, implementing and applying the goals, structure, and approaches for technical communication courses.

In other words, this new section focused on curriculum addresses a concrete need for us to “[publish] scholarship that theorizes and thereby promotes sustained attention to the disciplinary knowledge-making dimensions of technical communication program administration,” which includes curriculum development (Kitalong, p. 211). As technical communication teachers and administrators, most of us are, as a colleague of mine says, proficient BBSs (beggars, borrowers, and stealers) of activities, approaches,

and materials that assist and sustain us in our administrative work as well as in our teaching. However, too many of these efforts tend to happen in professionally unacknowledged ways—on listservs, over email, and at conferences in hallways, often after or between panels or informally over drinks and dinners; indeed, at our most recent CPTSC conference in Virginia that is exactly what happened. In the process of one such conversation, I complained to Tracy Bridgeford that we lack opportunities to exchange the successful (and yes, unsuccessful) activities and approaches we've developed. I think this is especially true in technical communication, since most of us are still "lone rangers," as David Sapp (2006) called us in "The Lone Ranger as Technical Writing Program Administrator." Moreover, because our field is so broad, it is no easy task to *individually* sustain the breadth of knowledge needed to stay up-to-date on how the diverse areas that are linked to our field—such as human-computer interaction, business information systems, and management—change and impact the teaching of technical communication. And so, I harped on and on about how we lack a professional venue for sharing, theorizing, and acknowledging the intellectual rigor and difficulty that also comes with developing interdisciplinary courses in our field, and with "transplanting" a specific design, theory, structure and approach for a course from one context into another. In response to my complaining, Tracy and Bill invited me to write this editorial introducing the new section of the journal and to join the editorial team as CS editor. I am excited to be part of this process and this journal.

Before getting to the details of what the CS will entail, however, I'd like to discuss how this new section furthers the vision established by the editors of *Programmatic Perspectives*. As Karla explained in her 2009 editorial, "the idea of mutual mentoring underlies the work that this journal does to help shape a new scholarly space" (p. 211). The aspects of mutual mentoring that support this idea include a commitment to the nuances of collaboration and creating relationships with authors. These aspects are evident from the way the editors work together to the philosophy they apply as they work with authors, putting into practice the notion that as we mentor we also learn from each other. Given these aspects, the CS section will have a complementary fit in the journal. Sharing the intellectual work we do as teachers—in particular, the theoretical frames we choose, the institutional needs and desires we try to address, and reflective practices we engage in before, during, and after a course—provides opportunities for us to learn from each other and to create relationships. Publishing pedagogical work in an academic journal such as *Programmatic Perspectives*, which supports the theoretical development of technical communication as a field in gen-

eral, and administrative work in particular, affords us “another opportunity to engage in mutual mentorship as we articulate...what is meant by the scholarship of program administration” (Kitalong, 2009, p. 212). Lastly, the online venue, which allows in very real and practical ways for this journal to exist, is also a space that seems most applicable for helping facilitate the kinds of activities the editors envisioned—creating a community and encouraging follow-up interaction.

The goals, then, of curriculum showcases are to address the need for a professional venue in which to showcase the intellectual work and research involved in developing a course and also to acknowledge the difficult work of transplanting a specific curriculum into another instructor’s classroom, another administrator’s program, given the range of experience, teaching personae, pedagogies, material circumstances, and other affordances. I offer the following broad purpose for this section: to self-critically describe a specific pedagogy that engages in the larger discourse of the field and that reflects the diversity and innovation of our curricular goals, content, structures, or approaches. The intention is that each issue of *Programmatic Perspectives* includes at least one CS article. And rather than supply a package of materials for readers to simply reproduce, each CS article would present a complete technical communication course—from how it aims to meet the needs of institutional contexts, to its theoretical assumptions and historical roots, to the syllabus, and to a post-course analysis of strengths and limitations. Consequently, a CS article would serve as both an analysis and a record of a complete technical communication course.

One example that provides some additional guidelines for authors, particularly in how to include the historical roots of an issue, and how to reflect specific pedagogy and practices in technical communication, is Bruce Maylath’s (1997) “Writing Globally: Teaching the Technical Writing Student to Prepare Documents for Translation.” In his article, Maylath argued that technical communication courses, “particularly introductory courses in technical writing, must include a translation component if they are to prepare students for the kind of work they are now likely to encounter as technical communicators” (p. 339). He began the article by situating the exigency of translation work in an increasingly global marketplace. He provides some context about the American reliance on English “in North America and the world at large” and the linguistic isolation that has influenced technical communication programs, including the textbooks we have used, which make little mention of translation and cultural issues as they relate to “accurate analysis of audience and to the making of appro-

priate effective choices in writing strategies” (as quoted in Thrush, 1993, p. 272). This contextualizing of our field in the first part of Maylath’s article is important. As James Dubinsky (2004) explained:

We have a rich history, one that has roots in both classic rhetoric and in the very pragmatic concern of teaching engineers how to communicate their disciplinary knowledge effectively. Knowing about our history helps us to recognize the character of our discipline and its roots. Understanding, for instance, what happened in technical writing classrooms in the past and why can enable us to make informed pedagogical decisions about the present and future. (p. vi)

In other words, such discussions help us to recognize how deeply our field *is* and *has been* embedded in the history of teaching language use. This embeddedness is an important aspect we’d like to have authors address in their work.

In his article, Maylath (1997) provided a framework and examples of assignments for developing international language awareness in an introductory technical writing course. He discussed briefly the two models that many technical communication courses have followed in integrating such material—having a full course in translation preparation or fitting the topic into existing courses. He offered a framework for the latter. His examples detail aspects of translation work to focus on—clarity, terminology management, space and signposts, and cultural and rhetorical differences. In the appendix, examples of assignments and student activities are also provided. For the purposes of the new section of *Programmatic Perspectives*, Maylath’s article demonstrates two important elements we hope to see in future articles—it moves beyond the “what I did in my class last semester,” and it connects to a larger concern in the field of technical communication.

In addition, though, given the purpose of CS, authors should also engage in the following:

- Examining what the students and teacher learned, and why.
- Theorizing the content of the course as well as the pedagogical approach.
- Adding to/complicating/calling into question commonly held ideas about and/or practices in technical communication.

Although we hope to represent the field’s tremendous pedagogical range and collection of practical and theoretical interests, we also intend to sustain some uniformity across CS submissions. The guidelines below are



intended to make CS a recognizable feature and allow readers to make comparative judgments among multiple curriculums. At the same time, we aim to make the guidelines flexible enough to allow authors the room to effectively represent their course.

Having said that, a published curriculum showcase should include the following, in this suggested order<sup>1</sup>:

*A historical context or exigency* in which the author briefly explains the ideas, practices, technologies, and/or events that have shaped/influenced/necessitated these pedagogical decisions.

*A course description* that provides the official course title and the institution at which the course is taught and in which the author briefly outlines the course's subject matter, underlying assumptions, major goals, and/or pedagogical approach.

A description of the *institutional context* in which the author briefly explains the relationship between the course and/or its specific curriculum and the needs, desires, or focus of the program, department, institution, or communities in which the course is offered.

*A theoretical rationale*, written specifically for journal readers, that explains the course's theoretical frame. Critical to this section is an explicit discussion of the purpose(s) of the course and its perceived goals and outcomes, both in general and in relation to its particular pedagogical design: What is the course for? Why has it been designed the way it has? What might result if it is effectively taught?

*A critical reflection* on the curriculum in which the author assesses strengths and acknowledges weaknesses, reflecting on what s/he and the students learned and why, a proposal for adjustments or modifications based on outcomes, and a discussion of implications for the field at large. Together with the theoretical rationale, these sections would be the heart of the article.

*A references list* that include works cited in the above five sections. This list would typically not include works referenced in the syllabus.

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<sup>1</sup> Readers familiar with the Course Designs section in *Composition Studies Journal* (CSJ), <<http://www.compositionstudies.uwinnipeg.ca/coursedesigns.html>>, will notice similarities here in terms of structure and content suggested for Curriculum Showcase. CSJ's example was useful as a resource because that made it unnecessary to "re-invent the wheel" so to speak, with regard to creating a similar section focused on curriculum for technical communication.

A *syllabus*, preferably the same document distributed to students. This final section allows journal readers to see precisely how the course is presented to students. Readers will want to see: a course description, statement of goals, or expectations; a brief explanation of the assignment sequence (perhaps including evaluation criteria); a bibliography of required readings; and a calendar. Although the syllabus submitted should be as close as possible to the document actually distributed to student, if any section is not critical to an understanding of the course and its context (for instance, an attendance policy) it may be removed. We encourage authors to keep syllabi under six single-spaced manuscript pages, including the calendar.

Given that our field does have a broad range in both pedagogical practices and theoretical approaches, I hope that the CS section becomes both an online space for publishing these intellectual, research-rich efforts and a medium that encourages contributors and readers to collaboratively reflect on this work after it is published. As Dubinsky (2004) pointed out with regard to Dewey's notion of forethought, reflective thought does not occur naturally, it involves an attitude and a method consisting of steps, which usually begin with "perplexity, confusion, or doubt," moves through "conjectural anticipation" into "examination...exploration, [and] analysis," and, after clarifying the problem and tentative suggestions, concludes with "a plan of action" (Selective Writings, 1973, pp. 494–506, as quoted in *Teaching Technical Communication*, 2004, p. 4)

Through dialogue, observation, and practice with those who share their knowledge and practices, we, as a community, can sustain the notion of forethought, and further refigure the teaching of technical communication as an "art," a *techne*. As such, we can recognize better how theory becomes practice, and teaching becomes research. Dubinsky continued by stating that

by so doing, we can recognize not only the complexity of our discipline but also the knowledge-generating element of teaching and the fact that because what we do is so intimately tied up with how we do it, we benefit from studying and reflecting on our teaching.  
(p. 3)

As administrators and as teachers, we occupy a unique position that helps us recognize the complexity of our discipline, not only from the instrumental and practical approaches of developing programs and teaching courses but also in theoretical terms. Both serve to inform each other, and both are

often challenging and rewarding. We hope that the Curriculum Showcase section will offer both administrators and teachers ways of organizing, framing, and/or of reshaping various issues in the field through the framework of teaching.

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# A Call for a Coordinated, Inter-organizational Exploration of Current Arrangements

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**O**ur field has evolved since the founding of the Council of Programs in Technical and Scientific Communication (CPTSC) in 1974. Significant changes have occurred in communication technology, workplace structures, the roles of scientific and technical communicators, academic programs designed to develop such professionals, and the nature of academic scholarship. How well has CPTSC evolved with these changes? This is a question for which I have no answer, but I am willing to raise the question because many of the conditions that prompted the creation of CPTSC and the Association of Teachers of Technical Writing (ATTW) no longer exist or at least look very different today.

CPTSC and ATTW began within a year of each other, at a time when the teaching of technical writing had migrated from “engineering and the sciences into disciplines traditionally allied with the classical liberal arts” (Longo, 2000, p. 144). Although the teaching of technical writing had been taken up by many English departments by the 1970s, the practice still lacked most hallmarks of a discipline—for example, journals, majors, and professional organizations. Instructors had to search nationally for colleagues with similar interests. The task was so demanding that Thomas Pearsall undertook it with the help of a grant from the Society for Technical Communication (STC) (Pearsall & Warren, 1996, p. 40). Similarly, the founders of ATTW relied on their connections with the National Council of Teachers of English (NCTE)—a relationship that continues. The initial purpose of ATTW, according to Donald Cunningham (2004), was to encourage NCTE and its constituent organization the Conference on College Composition and Communication (CCCC) to make more room at annual conferences for panels on business and technical writing (p. 127).

The overwhelming significance of CPTSC and ATTW is indicated by the roles each played in fostering the changes that followed their founding. Most obviously, both organizations have fostered professional development through their annual meetings, program reviews, and grant support. They created, or fostered the further development of, journals such as *Technical Communication Quarterly*, the *Journal of Business and Technical Communication*, and the *Journal of Technical Writing and Communication* (the last of which existed previously). The journal in which this editorial appears is yet another indication of that work. In addition to journals and book series, we now have a significant number of academic programs. In 1974, Pearsall and Thomas L. Warren (1996) identified 20 programs in technical and scientific communication. By 1994, there were 190 programs—a number that seems to have held steady recently (Maylath & Grabill, 2009, p. 31). Thanks to changes such as these, the sense of isolation that prompted people such as Pearsall, Warren, and Cunningham to reach out nationally has created a field that looks very different. Many PhD graduates in our field, although admittedly not all, can expect to join academic departments with at least a couple of like-minded faculty already in place.

Another obvious change over the past 40 years is in the number of professional organizations. By the end of 1972, there were two professional organizations, the STC and the Professional Communication Society of the IEEE. Both were geared more toward practitioners than academics. By 1974, two new organizations had developed. ATTW had “nearly 200 members” that year, which grew to 1200 by 1980 (Cunningham, 2004, p. 126). For the past 10 years, membership at CPTSC has usually hovered somewhere between 100 and 150.

Granted, some issues today look strikingly similar to those faced almost 40 years ago. The position of scientific and technical writing in the academy and workplace remains in flux. Rachel Spilka’s (2002) comment that “the field of technical communication is suffering an identity and credibility problem” (p. 97) is as true today as it was in 1970 and in 2002. This identity problem continues in part because of changes in technologies and workplaces (see, for instance, Johnson-Eilola, 1996). Similarly, and perhaps for many of the same reasons, the status of scientific and technical writing within the academy remains tenuous. One might think the growth of academic programs would be a good sign, and it is in many ways. But, as the document, “Writing Majors at a Glance” (CCCC Committee on the Major in Writing and Rhetoric, 2009) illustrates, it’s possible that our field could lose recognition amidst the growth of professional writing programs. One thing to notice in that document is the number of programs that

call themselves “professional writing” and that offer technical writing as a specialization within them. (This is the situation at my institution.) A recent message to the CPTSC listserv cites 187 undergraduate majors, 65 of which have “technical communication” in the title (Meloncon, Feb. 10, 2012). It’s possible, as institutions re-arrange, that scientific and technical writing could get subsumed. (Consider also the case of Miami University of Ohio.) Whether this is a good or bad thing for the field ought to be debated.

To this point, I have been posing questions of conjecture and quality. The task I’d like our field to undertake, somehow, involves questions of both quality and policy. What should CPTSC and ATTW be doing today? Are they configured in ways best suited for addressing the needs of practitioners and students? What would be appropriate economies of scale for each need?

Before I proceed, I should say that my question about CPTSC is prompted also by my own experience. I have served on the executive committee of CPTSC and currently serve on its ATTW counterpart. I have also served as local arrangements chair for ATTW and as conference chair for CPTSC. People inclined to serve these professional organizations often work with both, over time. I have seen that it can be difficult to staff leadership positions. Not everyone has the freedom or inclination to perform such service. This has made me wonder sometimes whether our field should be trying to staff two professional organizations. Do we stretch ourselves too thin by supporting two organizations? Or is it time to expand our scope beyond them?

Enough conjecture. Let’s talk policy. What I offer here is a set of questions and related ideas designed to prompt discussion.

### **Who Should Be Involved in Discussions?**

Perhaps we should begin an exploration of policy by widening the scope beyond CPTSC and ATTW. We now have the CCCC Committee on the Major in Writing and Rhetoric. NCTE may still have its Scientific and Technical Communication Committee. And what about the Association of Writing Programs (AWP) and CCCC? Given the growth in writing majors, I think the discussion should include at least the first three or four groups.

### **Where Might Discussion Start?**

Perhaps discussion could start first at the executive committee level. ATTW and CPTSC each hold at least one annual face-to-face meeting of their respective executive committees. Perhaps the presidents of each group could prompt such a discussion. Also, the Committee on the Major in Writ-

ing and Rhetoric could be prompted to do the same. Once the leadership of each group has discussed pertinent questions, perhaps a summit might be held. From there, proposals, if any are made, might flow back to the respective organizations.

### **What Might Each Group Discuss?**

I believe each group should ask some fundamental questions about their organizations. We could rely on insights from Pearsall and Warren (1996) and Spilka (2002) to develop a framework for such an exploration. Those three authors define the essential functions of a professional organization:

- How well does each organization promote and support the development of individual academic units? In what ways does each organization help members do their work at their home institutions? In what ways might this support be strengthened or weakened if existing arrangements within and between professional organizations were changed?
- How well does each organization promote research in the field of technical and scientific communication? (By research, I refer to multiple sites of inquiry, including programmatic, pedagogical, workplace, and civic.) If existing arrangements were changed, in what ways might scholarship be fostered more or less effectively? For example, would fewer scholarships and grants with larger dollar amounts have a greater or lesser impact than more of them with smaller dollar amounts?
- How well does each organization create opportunities for the exchange of ideas? Do the organizations, taken as a whole, offer an effective set of conference formats, locations, and dates? Do current online resources (<cptsc.org>, <attw.org>, <tc.eserver.org/>, and various listservs) offer complementary resources? Could such resources be strengthened if efforts were combined? What combinations might be possible? What would be lost in any scenario?
- How well does each organization identify and reward what the field values? As Spilka (2002) mentioned, one goal of a professional organization is to “provide recognition and awards” (p. 104). As Maylath and Grabill (2009) wrote, another goal is to influence the development of membership in desirable ways, for example, by increasing diversity in the field. Would a different arrangement of organizations enable our field to adopt strategies

*A Call for a Coordinated, Inter-organization Exploration of Current Arrangements*  
that may have a greater influence on bringing about the conditions we value?

- Finally, how well do our organizations represent the field of technical and scientific communication to others beyond our discipline? How well do our organizations raise awareness with colleagues in other fields? How well do they raise awareness with members of the general public? How well do we represent our needs and expectations to the media and those in power? Would a larger organization (however configured) have more influence than two or three smaller organizations?

In posing these questions, I have deliberately avoided a word like “combine.” I think it would be a mistake to begin any discussion with “Should CPTSC and ATTW combine?” That question unnecessarily limits the scope of inquiry. I have tried instead to write about the need for several related organizations to re-evaluate in some coordinated way. I think any discussion along the lines I’ve suggested ought to address economies of scale at every point. At what points would combining or coordinating efforts result in more significant outcomes? At what points would such a combination weaken what already happens? On some points, we may conclude that smaller is better; on others, we may conclude the opposite.

As I close this editorial, I am aware of Spilka’s (2002) call for “a new organizational consortium, consisting of members who represent diverse aspects of the field” (p. 98). Although I am making a similar kind of call, I am not calling for a long-term consortium. I urge the leadership of CPTSC, ATTW, and the CCCC Committee on the Major in Writing and Rhetoric, at the very least, to work together to define a strategy for discussing current conditions. Each group may well decide, ultimately, that no changes are necessary. We should not decide that, though, without serious, coordinated explorations at several levels.

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## **Acknowledgement**

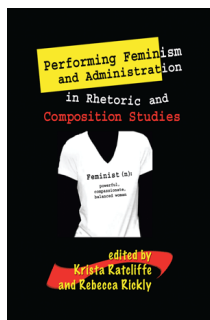
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**Book Review Editor**

José Laurence, *Grand Valley State University*

***Performing Feminism and Administration in Rhetoric and Composition Studies***

*Editors*

Krista Ratcliffe and Rebecca Rickly

New Jersey

Hampton Press

2010. 261 pp.

**Reviewed by Alex Layne**

*Purdue University*

**P**erforming *Feminism and Administration in Rhetoric and Composition Studies*, edited by Krista Ratcliffe and Rebecca Rickly, provides administrators a way to call into question traditional hierarchies that can stifle growth and innovation in academic fields such as rhetoric and composition and technical communication. This 15-article collection offers administrators practical methods for facing the material conditions of administration while working to further principles of feminism, such as collaboration, interruption, ethics, and agency. It also provides theoretical meditations on what it means to be simultaneously a feminist and a defender of principles that institutions value. However, the major strength of this book is its consistent connection to the context-driven, material conditions that administrators, instructors, and graduate students face. In other words, it is pragmatic, not idealistic. In a field such as technical communication that is striving to be more inclusive—evidence of which can be seen in the recent *Programmatic Perspectives* issue on diversity in technical communication—this type of feminist work can be immeasurably useful in opening our borders and enriching our practice.

The collection is divided into five parts, each part centering on a particular set of challenges feminist writing program administrators (WPAs) face. Part I, consisting of three chapters, explores the ethical, antifeminist, and problematic

situations confronting WPAs. Sybille Gruber ends Part I with a rich discussion of the conflict between utopian WPA theory and actual WPA practice. She calls for WPA scholars to create theories that allow for honest practice, rather than advocating for the unachievable: "What I suggest. . . is to ground our theories more fully and honestly in the reality of our practices" (p. 50). Gruber creates a counterbalance to the first two articles, which call for a stricter adherence to feminist theoretical principles. For technical communicators struggling to ground their teaching, research, and theory in contextual frameworks, Part I provides strategies for using theory and practice in ways that are situational, yet not so esoteric that they are unhelpful.

The four chapters in Part II interrogate the differing roles collaboration plays in a feminist approach to administration. In Chapter 4, Lynée Lewis Gaillet and Letizia Guglielmo argue that collaborative administration is a key factor in getting WPA work to be seen as intellectual work. Collaborative administration can flatten traditional academic hierarchies, instead dispersing authority diversely (p. 56–57). However, the authors of Chapter 6, Ilene Crawford and Donna Strickland, call this collaboration-centric approach into question. They argue that "collaboration, although useful, needs to be tempered with a commitment to the performance of interruption" (p. 77). For practitioners looking beyond reflection, Part II provides practical ways to use techniques that otherwise may seem counter to administrative duties.

Part III, three chapters, and Part IV, two chapters, continue to challenge assumptions found in the institution of the university. In Chapter 10, Kathleen Blake Yancey provides several narratives from her WPA career covering a wide range of topics from family, to budgets, to discipline. As do many authors in this book, she implicitly models a way for administrators to move beyond reflection to action. For technical communicators, action is a key part of our practice; thus learning how to move beyond reflection ethically is a topic of concern. Carol Mattingly and Paula Gillespie discuss the role of the writing center in fostering feminist goals of administration through "how we train our tutors to engage in good pedagogy and in how we mentor future leaders and administrators" (p. 179). As those currently teaching future technical communicators well know, mentoring is a key part of the field's success. Because technical communication does not have a unified set of universal principles and standards dictating practice, mentoring allows for a unique type of hands-on, situated instruction.

The final three chapters in Part V round out the book by looking at what is traditionally seen as nonintellectual work (for instance, editing) to see how this work can be enriched by a feminist theory of administration. For example, Kristine Blair and Lanette Cadle provide readers with a pragmatic method of mentorship through editing that they adopted when they reviewed graduate

student submissions at *Kairos*. They argue, “even at the word and sentence level, mentoring can lead to a more efficient work environment and also has the potential for higher quality of work in the future” (p. 209). Their success in using feminist principles in a traditionally hierarchical situation demonstrates the gains to be had from opening up spaces for alternative theories to exist alongside traditional ones.

Graduate students studying technical communication will likely find this collection valuable, as it provides methods for maintaining one’s ethics and principles while still participating in an environment that may run counter to those ethics and principles. Technical communication instructors may find the book useful as a source for helping them create systemic change while they participate as productive members of those systems. Administrators will find this collection an echo of their experiences as well as a guide for those who may feel they have had to resign their values to maintain the necessary level of management and bureaucracy.

It is somewhat unfortunate that the book is so firmly labeled a feminist work, as it will likely be passed over by those who need to read it the most—particularly administrators who have drawn the line between those who want to teach students to navigate the system and those who want to change the system. Beyond providing a feminist perspective, which is sorely needed in the field, this collection provides realistic ways for administrators to balance multiple alliances, whether they are to the university, industry, students, scholarship, tradition, or their fields of origin. Technical communication is inherently interdisciplinary, and thus administrators may find that this collection gives a voice to their experiences. Although the collection does focus on rhetoric and composition, the authors cover issues that administrators face in all disciplines, particularly those committed to interdisciplinarity. Ratcliffe and Rickly have provided readers with a way to face challenging administrative situations productively, without resigning deeply felt alliances. If technical communication is to become more diverse, this type of scholarship must become part of our body of knowledge.

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## *Programmatic Perspectives* **Logo Contest**

### **DEADLINE EXTENDED: May 1, 2012**

CPTSC is holding a Logo Contest for undergraduate and graduate students for its journal, *Programmatic Perspectives* ([www.cptsc.org/pp/](http://www.cptsc.org/pp/)).

The winner will receive \$100. There is also the possibility for two honorable mentions to win \$50 each. Logos should be submitted to Tracy Bridgeford ([tbbridge2@cox.net](mailto:tbbridge2@cox.net)) in JPG, GIF, and PNG formats. We hope to showcase the best submissions on the [cptsc.org/pp](http://cptsc.org/pp) website. Winners will need to submit logos again in their raw format. The executive committee will review and vote on the logos.

The deadline for submitting logos has been extended to May 1, 2012. Winners will be announced by the end of April. Questions? Contact Tracy Bridgeford ([tbbridge2@cox.net](mailto:tbbridge2@cox.net)).

## **Invitation to use the SLOT-C Database**

### **Connecting your students with nonprofits**

#### **(It's free.)**

Do you rely on the same on-campus or near-campus organizations for service learning projects? Have some projects turned out to be office work? Have students had trouble finding organizations compatible with their personal philosophies? Do you have trouble finding nonprofit partners nearby? The right projects nearby?

We'd love for you and your students to use the SLOT-C Database, a free service learning resource developed at Auburn University. It makes finding real projects—and good student-nonprofit matches—easier. It's designed for upper-division and graduate students in communication-related courses.

The SLOT-C connects your students to nonprofit projects across the country (and eventually beyond). It's searchable, and for some projects, students can telecommute. Also, students can learn a little about the organization up front.

After improving the beta version, we went fully online in September 2011. Hundreds of projects are currently in the database, and we're now recruiting nonprofit partners nationwide.

Please take a moment to visit the SLOT-C website (<http://www.slotc.org>) to learn more. When you have a chance:

1. Register as an instructor. Use your email address as your username. Choose a secure, but memorable password (e.g., fabprof500). (If you have any trouble, watch our tutorial for instructors: you'll find it by searching for YouTube slot-c.)
2. Choose a password for your course or courses (one that students can remember).
3. Describe one or more service learning projects for each course. (Your project descriptions can be brief.\*)
4. Try out a search. (Click Search Projects, and search for course projects like your students would. Remember, we're in an expansion stage: nonprofits are adding projects regularly.)
5. Give your students the password.

**Note:** The homepage shows the database's project categories. Your students will have more success finding a good match if you read the category descriptions first and ask your students to search within those categories.

Here's an example: "Choose a grant. Search under both Grants and Letters of Inquiry. I'm flexible about who you work with, so you can telecommute if you'd like to. Please share the nonprofit's contact information with me."

Please use our Contact page to report problems or suggest improvements. The form is very short, and it will let us better respond to specific problems.

Sincerely,

Susan Youngblood and Jo Mackiewicz

Service Learning Opportunities in Technical Communication (SLOT-C) Database

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