How mutual support can enrich the profession.

Integrating Academics and Industry: A Challenge for Both Sides

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Rapidly emerging technologies are bringing radical changes and challenges to today's workplace, not just for our own profession but for many others as well. As society's information needs change, so do the roles of technical communicators. Even the questions technical communicators face are constantly evolving: Which medium to use—and when, and how? Paper or online? Verbal or visual? Such questions were unheard of when many of us entered the profession, but they are commonplace for many practicing technical communicators today (as they certainly will be for many of today's university students in their careers—and it's impossible to guess what other questions will be just as routine for them, questions we cannot predict because quite likely the concepts and gadgets and words involved do not yet exist).

This does not lessen the importance of traditional knowledge and skills such as writing fundamentals, organization and design principles, audience analysis and adaptation, interpersonal skills, and critical thinking. As it has always been, communication is still the name of the game; the ability to write clearly is still the most prized skill for technical communicators. But students today must be critical thinkers, problem solvers, team players, lifelong learners; they must learn about document design, project management, levels of edit, visual communication strategies and techniques, etc., as well as how to use multimedia and computer technology. And, as anyone knows who has visited a computer store or the website of a major software developer lately, the number of computer applications is overwhelming—plus there is a constant state of flux created by frequent additions and upgrades. This creates a dilemma for technical writing faculty, for often their skills and expertise are limited, as are the hours in a class and ultimately the hours in a program of study. How, then, can they best prepare students to enter the workforce?

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The Challenge for Academicians

Like it or not, academics must face the challenge to envision the world beyond the classroom. They must come down from the ivory tower and realize that their students (and their students' parents, and the taxpayers who help pay many of the professors' salaries) expect a return on investment. Charles Glassick, author of the Carnegie Foundation report on assessing scholarship, warns, "… Institutions of higher education that fail to recognize the need …for engagement in society are falling out of step with the expectations of parents, students, politicians, and the larger public, as well as with their own stated goals" (Glassick et al., 1997, p. 8). And Elizabeth Tebeaux of Texas A&M points out, "…The university is no longer some type of sacrosanct, inviolate entity impervious to the outside world, and …faculty are no longer gatekeepers of knowledge who alone decide what is to be taught." She reminds technical communication faculty that "…how effectively we aid business in solving communication problems and [send] them students who can also aid in …these solutions is still our fundamental reason for being" (Tebeaux, 1996, pp. 51-52).

Knowledge as an end itself rather than a means to an end may be a noble pursuit, but university professors must recognize that theory is of value only if it can be applied. This is not to say that theory and skills must compete with each other, for the best teaching and learning incorporate both theory and practice through projects that yoke the two. Realizing that part of their job is to ready students for the workforce, the best professors will tie theory to practical skills and strategies that can be applied on the job. Knowing that their students will not be students forever but must eventually compete in a market-driven society where they will be paid to do, not merely to think, faculty must teach not only academic discourse but nonacademic discourse as well, and, as much as is possible within the constraints of their limited academic budgets, they must make emerging technologies available to their students. This can be especially problematic in English departments, where many technical communication programs are housed but technology has sometimes been slow to earn a respectful piece of the budget. Such departments have to be both aggressive and creative in finding ways to expand their technology offerings (and business and industry can help in this effort, as will be discussed later in this essay).

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University professors should also constantly seek input and feedback from practicing professionals who can provide valuable insight into what skills, abilities, and attitudes their students will need in their careers. One formal arrangement to facilitate such a process is through the use of an advisory board—a group of practicing technical communicators who regularly are involved in an academic program—from making recommendations for curriculum development to helping evaluate student portfolios for outcomes assessment (and everything in between). Obviously, such a system works only if faculty listen. This does not mean that academic programs should "sell out" to business and industry by tailoring their curriculum merely to meet the narrowly focused needs of a few corporations; certainly comprehensive universities and liberal arts colleges must take a much broader view. Nor does it mean that colleges and universities should abandon education in favor of training, but they must be willing to rethink and revise their curriculum if it does not meet the needs of their students or the profession. They must strive to balance academic principles and research with marketplace demands, or their programs will become unrealistic and irrelevant. They can take comfort, though, in knowing that today's best technology products will soon be outdated and replaced, but today's best teachers and the principles they teach will not soon be forgotten.

Technical communication faculty should be willing to open a dialogue with practicing professionals, for they must realize that their academic discipline is viable only if it supports the profession—only if, to use the terminology of Ernest Boyer, author

of the Carnegie Foundation report arguing for a broad definition of scholarship, it can be applied and integrated (Boyer, 1990). Faculty members should seek shadowing, mentoring, and interning opportunities for their students and for themselves as well. Many public schools begin shadowing programs as early as the fifth grade, in order that children can spend time with adults at work and see what a day on the job in a particular field involves. Many university departments have mentoring programs in which junior faculty are paired with senior members of the department who can help them overcome problems in their teaching and coach them toward gaining tenure and promotion. How much more useful, then, would shadowing and mentoring programs be for faculty members who have little if any on-the-job technical writing experience but must stand in front of the classroom and tell students what to expect and how to function on the job? Technical writing faculty should ask practicing technical communicators to let them visit on-site—not just as class field trips, as many have traditionally done, but as learning opportunities for the faculty to spend time one-on-one with a practicing professional, without the students in tow. (The Society for Technical Communication [STC] Academe-Industry Committee hopes to disseminate descriptive guidelines for such programs based on models that are already working; queries and suggestions for this or other STC programs mentioned in this article may be sent to the author.)

For too long technical communication professors and program directors have recognized the value of internships for their students without recognizing the value of internships for faculty members who have had limited or no practical experience outside academia. Perhaps they have misplaced the value of internships, seeing them as a key to getting jobs for students, without fully appreciating the learning opportunities they provide. Fortunately, STC helps support faculty internships, now called the Industry Fellowship for Faculty. In partnership with industry and academia and in keeping with Society goals, the STC Board of Directors annually awards two stipends to help support fellowship positions in industry for full-time technical communication faculty. The goal of this program is to promote academy and industry connections and to make it possible for faculty from colleges or universities to gain experience in industry. Any proposed fellowship must involve full-time on-site work responsibilities lasting between three weeks and six months. The maximum allocation per fellowship is $2000; the amount of funding is dependent on the complexity and duration of the project. While $2000 may seem like a small amount, when it is combined with university salary and any pay received for the work performed, it should help entice more technical communication faculty members to take advantage of this opportunity to gain practical experience. Surely such activities will enrich the teaching of those who participate; typically these fellowships will not only be a ready source of real-world documents to take back to the classroom but will provide a greater sense of professional credibility to take back to the classroom as well.

Technical communication teachers should also ask practitioners for samples of effective written documents, for careful analysis of these will enable both teachers and students to gain a better understanding of the strategies and techniques involved—strategies and techniques that cannot all be covered adequately in even the best of textbooks.

Faculty should invite practicing professionals to present guest lectures in the professionals' areas of specialization and expertise to their classes and to their student-chapter STC meetings, for certainly the academy can learn from practicing technical communicators just as surely as practicing professionals can learn from the academy. Here, too, STC lends its support to such endeavors, having recently established the Teaching Fellowship for Practicing Professionals. As its name implies, this fellowship helps support technical communicators in short-term adjunct teaching fellowship positions in colleges or universities. The fellowships must last for at least one academic quarter, trimester, or semester; once again the maximum allocation per fellowship is $2000, and the amount of funding is dependent on the complexity and duration of the teaching assignment.

Academics should propose collaborative research projects with practicing professionals—research

on such things as communicative purposes and applications in their workplace. Such research could prove useful and relevant to both academe and industry, giving academe access to authentic professional writing samples and providing rich fields for scholarship, and ideally drawing conclusions that can help with the application and integration of theory in order to achieve better communication in the workplace.

In return for all these accommodations from practitioners, professors and program directors should consider whether they could serve the practicing professionals (and thus the profession itself) not only by producing educated and skilled graduates from their current clientele, but also by keeping programs as flexible as possible (evening and weekend classes, applied thesis options, flexibility in meeting language requirements, etc.) and offering special programs (such as noncredit training and in-house courses) that meet the needs of the practitioners. Depending on the industrial climate where a college or university is located, continuing education (perhaps in a certificate program, if area business and industry would recognize its value) and distance learning might be welcomed by practicing technical communicators. Distance learning can take many forms, with the common denominator being that much (if not all) of the teaching is done by someone who is in a different location than the students (at least most of the time); thanks to the marvels of technology, the teaching and learning may or may not happen simultaneously. Perhaps the oldest and one of the most sophisticated distance learning programs in technical communication was developed by Rensselaer Polytechnic Institute nearly twenty years ago when they established an on-site master's program for Bell Telephone Laboratories in New Jersey—a program that now operates via satellite video. Today's technology makes it possible to meet the educational needs of audiences everywhere; whatever the combination and configuration for distance learning, it obviously can be of tremendous value to practicing professionals who work full time, often far from training centers or academic technical communication programs.

Above all, technical communication faculty should be neither condescending toward nor intimidated by practicing technical communicators, for they should recognize that as a community of colleagues working together they can improve the profession.

The Challenge for Practicing Professionals

If we are to reach middle ground, practitioners must also be open to change, and implied in the discussion above are suggestions for practitioners' reciprocal roles in creating and strengthening connections with the academy. Though in many ways the technical communication profession long preceded the academic discipline, it would be foolish to overlook ways in which the discipline can improve the profession. Many practicing technical communicators already recognize the comfort and credibility provided by academic preparation in technical communication—comfort in knowing they are making intelligent choices for various audiences and various communicative purposes, credibility in being able to cite research (instead of just intuition) backing up those choices. Practicing professionals should realize that often it is helpful to know why as well as how, that often applications can be improved by a theoretical framework, and that often such theoretical grounding may offer them at least a bit of security in the face of corporate downsizing.

Industry must not expect universities to serve as mere feeder schools, devoting all of their time, resources, and energies to training students in the latest version of the newest software industry is using today. Recognizing the value of critical and flexible thinking skills acquired in the general education programs required by universities, practitioners should not expect universities to serve as vo-tech schools as well. Academic programs must focus primarily on the big picture: teaching students to be critical thinkers, problem solvers, lifelong learners. They cannot afford to spend huge chunks of their time or funding on cutting-edge technology that will likely be outdated six months later. Saul Carliner of the University of Minnesota forecasts a time when authoring tools will be consolidated and thereby standardized,

a time when technical communicators will need fewer tools. He predicts that when that time comes, the ability to use technology tools will become what he calls "a commodity skill—one that nearly anyone has, like typing. When that happens," he says, " employers will once again hire people for their ability to design and develop usable information" (Carliner, 1999, pp. 7-8).

Meanwhile, business and industry must recognize that students who know one version of RoboHELP (or whatever software program) can quickly learn another, just as surely as a child who knows how to use a salt shaker can easily adapt to using a pepper shaker. Employers should recognize that a prospective employee's ability to use a few basic programs (even if not in the very latest versions), coupled with interpersonal skills, a willingness to adapt, and an ability to learn quickly, can over the long term be more valuable than knowing the right version of the right software today. Such a realization will free employers to concentrate instead on employees who can think critically and write effectively. Jack Molisani, founder and president of a technical communication and placement firm, believes "the most common mistake hiring managers make is confusing knowing a tool with ability to communicate," and he advises anyone hiring technical writers to "focus on a writer's ability, not the latest technology," for it is worth the cost to send good writers for training in technology tools (Molisani, 1999, pp. 24-25).

In addition, business and industry should be willing to share their technology and expertise with academic programs. Acknowledging that academic budgets will likely never be able to provide for the latest technology for document design, desktop publishing, and electronic media, business and industry should consider donating hardware and software to academic technical communication programs. Setting up an entire computer lab is one option, and surely in most instances the lab could carry the donating firm's name and thereby generate favorable public relations. Smaller donations would be helpful and welcome as well and still could generate goodwill and good public relations. In fact, firms that manufacture computer hardware or software should view such donations as marketing, for students who learn to use their products will likely retain a degree of loyalty to the brands they used in college labs. At the very least, business and industry should donate their hand-me-down software and hardware as they upgrade. But, as Charles Sides, editor of the Journal of Technical Writing and Communication, points out, such corporate support must be "…at its foundation essentially altruistic," for "while corporations should rightly expect something in return for their investment in academic departments and programs, that return should be in the form of more qualified graduates from whom to select new employees. Quid pro quo financial support arrangements are nothing less than academic prostitution" (Sides, 1998, p. 2).

Most of all, practitioners should be willing and eager to share their expertise by serving on advisory boards, by allowing students or faculty members to shadow them at work and by serving as their mentors, by supervising their internships, by providing models of good writing, by presenting guest lectures, by working on joint research projects, and perhaps even by serving as adjunct faculty or doing academic internships or fellowships themselves. Practicing professionals should welcome every opportunity to support and have a voice in academic technical communication programs. The new STC Teaching Fellowship for Practicing Professionals is one such opportunity, and some corporations should be applauded for sponsoring similar exchanges. (IBM, for instance, has developed a Faculty Loan Program, which allows qualified employees to remain on IBM's payroll while spending a year teaching at a university.)

Multiple Perspectives/Parallel Directions

Whether we teach technical communication, or study it, or practice it, we can all help advance the profession. Clearly, SIGDOC members (practitioners as well as academicians) can contribute to the education of future technical communicators in diverse ways. Mentoring programs, internships and fellowships for faculty and practitioners as well as for students, team teaching, guest lecturing, distance learning, collaborative research projects—these are

but a few of the ways academics and industry can join hands to work for the good of the profession.

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