

# The Case for “Technical Communicator”

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## *Abstract*

*The centuries-old profession of technical writing has transformed itself into a new profession, **Technical Communication**, which applies **all** forms of media—including graphics, animation, and sound, as well as text—to meet the needs of the 21st century marketplace. An occupational classification that continues to measure only those who practice as writers understates the size of the profession and sends false signals to labor market participants, employers, career counselors, and educators. Data based on a more complete definition are needed to ensure that U.S. firms have access to skills needed to keep American business and labor competitive in a world in which technical communication is seen as an integral part of the product by product developers, marketers, and, increasingly, litigators.*

## **From Writer to Communicator**

Technical writing is almost as old as technology itself. The need to convey technical information accompanies every scientific and engineering breakthrough, and for centuries the primary medium for conveying this information was the written word. A 17th-century example of technical writing was produced by the astronomer Galileo, who wrote a large manual explaining the use of his geometric compass.

But we have passed the age of the geometric compass, astrolabe, and pendulum clock. As technology permeates every aspect of our society and economy, both *the need* and *the means* to communicate technical information have grown. Were Galileo explaining his inventions today, he would not limit himself to quill and paper. He would have at his disposal advanced computer graphics, 3D modeling, interactive software, affordable audio and video production equipment, and a worldwide communication network to distribute his technical information.

So it is with those who make their living explaining new inventions, products, and scientific concepts in the 21st century. As these workers have expanded their work to include more than simply technical writing, a most accurate term for what they do now is *technical communication*, and they themselves are *technical communicators*.

*A definition based only on “writers” sends false market signals*

To assure that the market is aware and responds to these new demands, business and government must keep up with these changes. By describing technical communicators only as *technical writers*, the U.S. Department of Labor (DoL) data and reports

misrepresent modern business reality, understate market trends, and send erroneous market signals. We need look no further than DoL's own data to demonstrate this.

The Bureau of Labor Statistics (BLS) *Occupational Employment Survey* (OES) reports that the number of technical writers has been in systemic decline since the 1990s. Yet, the most recent BLS *Employment and Occupation Projections Report*, covering the decade from 2004 to 2014, projects that the number of technical writers will grow by over 23 percent over the current decade. How can we account for this apparent inconsistency?

Other sources clearly point to a growing demand for multi-media technical communication creation and management:

- Combining the BLS occupation projections data with compensation data from *Salary.com* and other factors including job-related stress, physical danger, and educational requirements, *Money Magazine* listed technical writing as 13th among the top 50 jobs in the United States. (*Money Magazine*, <http://money.cnn.com/magazines/moneymag/bestjobs/top50>)
- The Society for Technical Communication's annual Salary Survey has reported rising salaries for the last 21 years. (STC 2005 Salary Survey, <http://www.stc.org>)
- The number of universities offering undergraduate degrees in technical writing or technical communication has exhibited stunning growth rates. Dr. Robert Johnson, professor and chair of Michigan Technical University's Humanities Department, reports, "In the 1970s there were only about 10 such programs. Today, there are more than 120."
- The number of universities offering Ph.D. programs specifically in technical communication has risen dramatically over the last 30 years. Sam Dragga, Professor and Chair of the Department of English at Texas Tech University, claims, "There was a single Ph.D. program in technical communication in 1979. There are now 38."
- In a May 2006 study Jupiter Research, a leading research firm in the information technology field, predicted that in the immediate future "year-over-year increases in [online] inquiry volume will challenge already-impoverished online customer service operations, exacerbating the cost of providing customer service and negating expected cost-efficiencies."

Clearly, technical communication in all its forms—including visual, video, audio, online help, and text-based documents—is growing. The apparent conflict between OES data versus the forecasts in the *Employment Projections* and the other sources listed above points to an outdated occupational definition that fails to include the newer and fastest-growing functions and media in the field.

### **Technical Information: Production and Media**

According to Saul Carliner, former STC president and assistant professor of Educational Technology at Concordia University in Montreal, Quebec, currently only 20-30 percent

of a technical communicator's effort is spent with traditional writing assignments. Furthermore, Carliner asserts that the role of technical writing in meeting the demand for technical communication will continue to decline.

Employers are not only aware of this shift, they are helping to drive it. A survey published by the Information Technology Association of America in 2000, *Bridging the Gap: Information Technology Skills for a New Millennium*, discusses what managers expect from new "technical writing" hires. The study states that

...hiring managers are looking beyond the basics of writing and editing; indeed, this particular skill set seems to be less important to most respondents. Rather, companies are looking for people who can perform research and assist in publishing and packaging. The latter skill set suggests that a flair for marketing is also desirable.

Employers represented in the study may be slow to update the job titles of their workers, but clearly the expectations have evolved far beyond those for a "technical writer."<sup>1</sup>

TC Europe, the umbrella organization for 10 national technical communication professional societies in the European Union, now defines *Technical Documentation* as "all activities, means and systems providing information that enables the user to understand the functioning of the product, to handle, maintain, repair and dispose it correctly and safely." TC Europe notes, "There are different means of communication: print media (paper), digital media, face-to-face communication, telecommunications, and learning media." Technical Communicators must be conversant in all of them.<sup>2</sup>

Based on conversations with many working technical communicators and their employers, STC found that the skill set for technical communicators is shifting in response to the market. Now, in addition to writing technical communicators must:

- Produce graphic design and animation
- Analyze product requirements
- Analyze and select technology and media used to deliver technical information
- Accommodate disabled users, providing much-needed economic access
- Participate in marketing and customer relations decisions

Academia has recognized the importance of teaching technical communication skills that include more than just writing and editing. Michigan Technological University (MTU) established one of the first degree programs specifically in "scientific and technical communication" in 1975. MTU's Bob Johnson explains, "Scientific and technical *communication* is more inclusive than scientific and technical *writing* for it draws on a number of disciplines."

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<sup>1</sup> ITAA, *Bridging the Gap: Information Technology Skills for a New Millennium*, April 2000

<sup>2</sup> TC Europe, [www.tceurope.org](http://www.tceurope.org)

Johnson also points out that students in his department's undergraduate program in scientific and technical communication enjoy a job placement rate of more than 90 percent. This stands in stark contrast to BLS statistics showing technical writers in decline.

## **Subject of Regulatory Mandates**

### *Consumer Protection*

As technology penetrates ever deeper into the fabric of society, technical communication has come under the scrutiny of legislators and lawyers. American Law Institute and the National Conference of Commissioners on Uniform State Laws are working together to promote model legislation for all states that makes technical communication part of a merchant's or manufacturer's "claim of warranty" of quality and/or performance. Enshrined in the Unified Commercial Information Transaction Act (April 2002), the legislation has already been adopted in two states.

### *International Competitiveness*

Domestic efforts lag behind, and in fact have been driven by, similar legislation in the European Union and Canada. The UCITA language was based on existing Canadian law. For its part, the European Commission has successfully promulgated laws among its member states making technical communication part of the product. The European Union, in a December 17, 1998 *Council Resolution on Operating Instructions for Technical Consumer Goods* (98/C 411/01), declared that corporations are responsible for users not knowing how to use their products. If American goods are to compete in that market, our technical communication products must be able to meet these standards.<sup>3</sup>

### *Economic Access for the Disabled*

Technical communicators took the lead in the late 1980s and early 1990s in recognizing that *economic access* for the disabled depended, in part, on their access to technical information. By setting a goal for the profession to provide "universal access to technical information," technical communicators leveraged the capacities of alternative media and new technologies to bring technical information to disabled workers in ways that simple text writing could not. A browser designed for the sight-impaired, for example, can "read" the service information to the user.

For Americans with disabilities, universal access to technical information removes an important barrier to the labor market. To this extent, by providing more complete information on the technical communication profession, the Bureau of Labor Statistics also serves its sister agency, the Employment and Training Administration, in its efforts to reduce labor market barriers for disabled Americans.

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<sup>3</sup> [http://europa.eu.int/comm/consumers/cons\\_safe/prod\\_safe/gpsd/revisedGPSD\\_en.htm](http://europa.eu.int/comm/consumers/cons_safe/prod_safe/gpsd/revisedGPSD_en.htm)

To the degree that underestimates of the technical communication field discourage workers from entering the field, gathering information only on technical writers and understating the market size for technical communicators can undermine businesses' ability to comply with consumer protection legislation, hinder the international competitiveness of U.S. businesses, and compromise the marketability of disabled workers.

### **A Brief History of Technical Communicators: Defining a New Profession**

Post-World War II prosperity brought an incursion of technology into the lives of average Americans in the form of televisions, appliances, stereos, etc. Demand for technical documents grew, and so did the profession of technical writing. In 1953 two professional societies were formed to serve technical writers: The Association of Technical Writers and Editors, and the Society of Technical Writers. The following year, the Technical Publishing Society was formed. Through a series of mergers, these organizations eventually became the Society of Technical Writers and Publishers (STWP).

But as early as the 1960s, discussion within STWP focused on a trend away from "just writing." The profession was evolving—it was clear to those working in it that other forms of media would be used to convey technical information in the future. This trend drove the Society to change its name from the Society of Technical Writers and Publishers to the Society for Technical Communication in 1971. Society President Mary M. Schaeffer wrote at the time that

The [new] name... is explicitly constant with the primary purpose for which our Society was formed—to advance the theory and practice of technical communication in *all* media. [emphasis by Schaeffer]

Moreover, those in the profession saw the need for interactivity—an exchange of information between themselves and those who use technical information. Johnson points out that the review process used to revise and correct documentation in the 1970s was actually a pre-Internet form of interactivity.

The vision for technical communication was there in the 1970s. Still, interactivity was limited to mail (the paper kind) and telephone. Distributing media other than printed copy was expensive. In other words, the infrastructure to fully support technical communication was not yet in place. That changed in the 1990s when the Internet became a force in the business world.

The Internet was built for the purpose of communication and serves as a delivery system for all media, including text, audio, still graphics and photos, video, animation, and representations of 3D models. In addition, it introduces an element of interactivity to all these media that is absent from older delivery systems. You can, for instance, visit a home-care Web site, input information about your air conditioner, and receive recommendations on maintenance and service—including up-to-the-minute safety warnings and recalls. This is simply not possible with a book.

This change in the scope of technical communication necessitates a change in practice. You need a writer to create a book; you need a communicator to create an interactive service manual deliverable via the Web. This underscores the characteristics that distinguish technical communication from technical writing:

- Technical writing is static and one-way.
- Technical communication is dynamic and interactive.

The word "interactive" actually indicates two processes. One describes the users and technical communicators directly "interacting" through on line customer support, help desks, and artificial intelligence tools.

Now emerging are new capabilities for the users themselves to provide information that becomes part of the documentation and is reused by other users. The most basic form of this is the on line discussion group, where users of the same product discuss technical issues and exchange observations, comments, and practical advice. A more advanced form is the "wiki," where multiple users share authorship of a single document.

Both processes have a place in the world of technical communicators. "Technical writers *produce* content *for* users," says Larry Kunz, chairperson of STC's Strategic Planning Committee. "Technical communicators *manage* content and relationships *with* users." In the previously referenced report, Jupiter observed that "service organizations must break down touch point silos to create a consistent and contextual experience for customers as well as mitigate the risk of viral behavior" underscoring that in a dynamic environment in which both supplier and customer are creating content technical communicators to be part of the information and system security process in addition to crafting content and presentation.

While one is tempted to conclude that these skills should therefore be assigned to one of the emerging web-based occupations, it is important to note that the change from "writer" to "communicator" pre-dates the emergence of the Internet. So, while the Internet created new channels of communication and allowed for interactivity and the near-instant distribution of all media, the job functions that define the technical communicator are NOT Internet-driven.

Nevertheless, the Internet has irrevocably changed the expectations of consumers. The first wave of children to grow up with the Web has now reached adulthood. Soon the marketplace will be filled with adults who cannot remember a time before the Web. Having enjoyed the benefits of dynamic, interactive information, these consumers will never be satisfied with anything else.

And yet, consider today's high school guidance counselors and teachers, as well as career counselors, corporate trainers, and labor force development specialists. They may be unaware of these trends because they are armed only with statistics on technical writers and not on the entire profession of technical communication. Bright, technically savvy

teenagers who might be interested in a career in technical communication are left in the dark.

## **The Current Market**

Today, technical communicators are fulfilling the vision that drove STC's name change in 1971. Their communication with end users is interactive (two-way) and dynamic. They work in multiple media, and employ skills beyond just writing. So why is it that the job title "technical writer" is still used so widely (and often inaccurately)?

Managerial inertia surely plays a role. ("This is how we've always done it.") However, this does not mean that management fails to appreciate the work of technical communicators. Hewlett Packard's Director of Technical Communications and incoming STC President Linda Oestreich says that large corporations like HP have incorporated technical communication into all product development, where it is an essential part of that process. The days when a technical communicator is limited to crafting a single user manual are quickly coming to a close. Today's technical communicators collaborate with nearly every corporate department, including new product development, marketing, customer service, and legal staff. Where they are located and what they are called depends on each corporation's governance structure and production system.

Some academic institutions continue to use the term "technical writing" in some of their course and degree descriptions—though not always by choice. Paul Dombrowski, a full professor of English who teaches in the technical writing program at University of Central Florida, says, "We wanted to change the name of our program to technical communication ten years ago. But other departments have staked a claim to the word 'communication,' and they disallowed it." In other words, pre-existing programs and reputation and branding may prevent departments from calling their undergraduate programs "technical communication," even when it more accurately describes the program.

And, finally, the fact that BLS collects data for technical writers but not technical communicators certainly has an impact on job titles. A change to the more accurate term would push industry, academia, and government in the right direction.

## **Solution**

As we've seen, the emergence of technical communication from technical writing was spread out over decades. While we understand how BLS could have stuck with the term "technical writing" for so long, it's time to change this policy. To that end, STC proposes that the Standard Occupational Classification 27-3042, Technical Writer be replaced with 27-3044, Technical Communicator, which includes those who

Develop and design instructional and informational tools needed to assure safe, easy, proper and complete use of technical goods. Combines multi-media knowledge and strong communication skills with technical expertise to educate

across the entire spectrum of users' abilities, technical experience, and visual and auditory capabilities.

This definition is consistent with the consumer protection legislation currently promoted both in the U.S. and E.U.

Alternate job titles for technical communicators would include but not be limited to:

Documentation manager  
Documentation specialist  
Information developer  
Content provider  
Information architect  
Usability specialist  
Localization specialist

Please direct questions or requests for further comment regarding this petition to:

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