Standards:

New Opportunities for P&P Writers

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International standards are becoming more and more prevalent in the business world, and their development and implementation offer new opportunities for technical communicators working in policies and procedures (P&P). Depending on the industry in which it operates, a company could find itself required to meet the dictates of international standards such as ISO 9001 for quality management systems and ISO 14001 for environmental management systems; regulatory standards such as Sarbanes-Oxley and 21 CFR Part 11; and industry-specific standards from the Federal Aviation Administration (FAA), the Society of Automotive Engineers (SAE), or the World Wide Web Consortium (W3C). This article will discuss why we need these standards, how international standards come about, what their impact will be on technical communication, and how P&P professionals can take advantage of these new opportunities.

Why do we need standards?

Standards ensure that products on the market conform to accepted requirements. They run the gamut from cross-industry requirements, such as Sarbanes-Oxley's financial disclosure and the W3C's Internet standards, to industry-specific standards such as those developed by regulators like the FAA and the SAE. As our business communities have become more globalized, the growth of internationally recognized standards has accelerated over the past few years. The International Organization for Standardization (ISO), a non-governmental organization based in Geneva, develops and distributes international standards for almost all aspects of business, industry, and technology, such as ISO 9001 and ISO 14001. While complying with ISO standards is voluntary, doing so is widely considered to be good business.

Some internationally recognized standards are not governed by the ISO: Many industries develop specific standards designed to meet their unique needs that also become internationally accepted. Such standards include TS16949, the adaptation of the ISO 9001 quality management systems standard to the auto industry, recognized by all major auto manufacturers; AS9101, the same adaptation designed for aerospace industries; and TL9001, ISO 9001 for the telecommunication industry.

But why do we need these standards? Simply put, they facilitate international trade and commerce. International standards provide a basis for organizations to establish their processes and assure their customers that the products they produce will meet predefined criteria. Consider this: Because of international standards governing the manufacture of CD recording and playback equipment, the recording format, and the CD medium itself, a music CD recorded in the U.S. on German-made recording equipment can be played on a CD player manufactured in Korea.

International standards also make financial sense. For instance, let's say that a company in the U.S. wants to purchase goods from a supplier in Germany or Japan but needs assurance that their goods will consistently meet its quality requirements. Without ISO 9001, the U.S. company would either have to conduct an audit on its foreign suppliers or subject their products to rigorous and expensive inspection routines when they arrived in the U.S. By buying from a company with an ISO 9001-registered quality management system, the American company can be confident that the goods it receives will meet its requirements or that there is a defined way to deal with nonconforming products and seek corrective action at the point of manufacture.

How do international standards come about?

International standards don't just happen; they are the result of a long and somewhat tedious process that seeks to attain worldwide consensus within the affected areas. More than 150 nations are signatories to ISO, and each has a national standards organization that maintains a Working Group (or a Technical Advisory Group, as they are known in the U.S.) to act as a forum for inputs to the standards-drafting process.

These Working Groups consist of volunteers who are experts in the specific business area for which standards are under development. The groups hold meetings with, seek inputs from, and consult with respected members of their national business communities to get the information required to draft suggestions and recommendations to their respective national standards body.

National delegates from these Working Groups meet with their counterparts from other nations at plenary meetings each year to discuss these inputs, and, through consensus, these drafts evolve into a Working Draft (WD) of the standard. This process may require the development of several Working Drafts before a Committee Draft (CD) can be submitted to the members of the advisory bodies of all ISO signatory nations for review and comment. Again, this process may involve more than one CD before the Final Draft International Standard (FDIS) is submitted for a vote. Once approved by a majority of the signatory nations, the FDIS becomes an International Standard published by each nation's standards body.

How do standards impact technical communicators?

Currently, a standard development effort is underway that deals with systems and software engineering. This work is being conducted by a Sub Committee (SC), known as ISO/IEC JTC1 SC7 or simply SC7, under the auspices of a Joint Technical Committee (JTC) of ISO and the International Electrotechnical Commission (IEC). This Sub Committee looks at a wide variety of activities that make up the discipline of software and systems engineering, data definition, documentation, evaluation and metrics, functional size measurement, integral life cycle processes, life cycle management, process assessment, tools and environment, software integrity, and software measurement.

SC7's Working Group 2 (WG2), which deals with documentation, will develop internationally recognized standards covering how documentation is structured, from user guides and reference manuals to software packaging, and how the development of a system or its

software is documented. Two STC members, Annette Reilly and myself, serve as delegates for our respective nations (the U.S. and Canada) in the Working Group.

What are the opportunities for P&P professionals?

Well, there are several. Initially, we will see a greater demand for professionals with our skill sets to assist organizations in developing the policies, procedures, and work instructions required to support registrations to these international standards. One of the difficulties facing businesses is over-documentation. The initial version of ISO 9001, released in 1987, resulted in large quantities of procedures describing, in minute detail, every aspect of how a business operated. The mass of documentation led to claims that the standard was a documentation nightmare, that it created documentation bureaucracies, that it was designed to keep consultants and their writers and printers employed, and so on. In most cases, these situations resulted from poor implementations guided by unskilled consultants without input from P&P professionals.

As standards continue to grow in number and influence, however, so will opportunities for P&P professionals. Today, many organizations that implemented ISO 9001 are finding the adoption of ISO 14001, the environmental management standard, a wise business investment that demonstrates their commitment to responsible corporate behavior. The current OHSAS 18001 standard dealing with health and safety issues is also getting a lot of attention by future-thinking companies. Rather than having separate systems to deal with the requirements of each of these standards, many companies are developing a holistic system that incorporates all aspects of these disparate standards.

This is where P&P professionals, with our knowledge of modern documentation tools and management systems, as well as our ability to analyze the needs of users and organizations, can bring significant benefits to the organization. P&P professionals ensure that the documentation can be controlled and

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maintained. They ensure that the documentation meets requirements, that it is useable and relevant, that it adds value to an organization, and that it is easily accessible by all. By using work simplification tools such as process mapping and flowcharting software, P&P professionals can assist organizations in moving hardcopy documentation into online delivery mechanisms. We can also eliminate unnecessary procedures and instructions and meld new requirements into the company's existing documentation sets.

Another, less obvious, opportunity for P&P professionals exists in the development of international standards. At a recent meeting in Helsinki, Finland, the SC7 proposed and had accepted a complete restructuring of the current set of documentation standards and guidelines. Currently, standards address specific activities such as Tools and Environment, Evaluation and Metrics, Life Cycle Management, Integral Life Cycle Processes, and so on. The new structure for documentation will be based on specific user groups, such as managers, testers, and documentation designers and developers, within two defined categories—user documentation and life cycle documentation. This work will be ongoing over the next few years and requires inputs from those working in all areas of software and systems engineering that require documentation. Participation is

open to anyone through their national standards body.

WG2 of SC7, which is in charge of this effort, maintains a public Web site at *www.hci.com.au/iso* that provides some basic information about the group as well as links to the following:

- a listing of national standards bodies maintained by ISO
- e-mail addresses for the current members of WG2
- ISO and IEC

While it's true this work is voluntary in nature, the experience and knowledge that you can gain in this endeavor will add a unique shine to your resume and enhance the credibility you bring to your work.

Conclusion

Standards are here to stay, and there will likely be more of them as business continues to evolve and expand. Since many of these standards may ultimately be adopted by the countries we work in, technical communication will probably become more and more regulated. As professionals, we have an obligation to take an active role in developing rules that affect our work. And as standards become more prevalent in the business community, companies will seek out those with in-depth knowledge of their requirements. What better way to gain this knowledge than by helping to develop the standards themselves? I might also add that among the side benefits of my work with WG2 are the international travel opportunities—so far, I've traveled to Japan, Finland, and New Zealand. ❶

Ralph Robinson was the first recipient of STC's distinguished SIG service award at the request of the P&P SIG and has over twelve years' experience in maintaining ISO-related documentation at a Fortune 500 company. He is a senior member of STC, serves on the STC standards committee, and is the Canadian delegate to ISO/IEC JTC1 SC7 WG2. Ralph has authored three books on quality management and has published articles on documenting standards issues in Intercom and other trade publications. He can be reached at r2inovatns@look.ca.