

CHAPTER 1

Definition of Technical Communication

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CHAPTER 1 IN A NUTSHELL

Here are the basics for getting started in technical communication:

Focus on your audience. Your audience needs to get work done. You help them. To help them, you must stay aware that your goal is to enable them to act.

Think of audiences as members of your community who expect that whatever happens will happen in a certain way and will include certain factors—your message is expected to include certain sections covering specific topics. When you act as members of the community expect other members to act, your message will be accepted more easily.

Use design strategies. Presenting your message effectively helps your audience grasp your message.

- ▶ Use the top-down strategy (tell them what you will say, then say it).
- ▶ Use headings (like headlines in newspapers).
- ▶ Provide navigation to guide users to the content they need.
- ▶ Use chunks (short paragraphs).
- ▶ Establish a consistent visual logic through your formatting choices.

▶ Use a plain, unambiguous style that lets readers easily grasp details and relationships.

These strategies are your repertoire. Master them.

Assume responsibility. Because readers act after they read your document, you must present a trustworthy message. In other words, readers are not just receptacles for you to pour knowledge into by a clever and consistent presentation. They are stakeholders who themselves must act responsibly, based on your writing. Responsible treatment of stakeholders means that, among other things, you will use language and visuals with precision and hold yourself responsible for how well your audience understands your message.

Think globally. Much technical communication is distributed to audiences around the world. To communicate effectively, you must learn to *localize*. *Radical localization* requires a significant commitment to take into account the audience's broad-based cultural beliefs, while *general localization* involves tailoring the details of your document to locally expected methods of description—for instance, designating the date as day/month/year, or weights in kilograms.

Welcome! Technical communication is a large and important field of study and professional activity. Universities worldwide offer courses and programs in technical communication. Professionals either are technical communicators or produce technical communication documents as part of their jobs. The goal of this book is to make you an effective, confident technical communicator. This chapter introduces you to the basic concepts you need to know in order to communicate effectively. All the rest of the ideas in the book are based on three concepts: technical communication is audience-centered, presentational, and responsible.

This chapter introduces the field with two major sections: A General Definition of Technical Communication and Major Traits of Technical Communication.

A General Definition of Technical Communication

What Is Technical Communication?



Technical communication is “writing that aims to get work done, to change people by changing the way they do things” (Killingsworth and Gilbertson, *Signs* 232). Authors use this kind of writing “to empower readers by preparing them for and moving them toward effective action” (Killingsworth and Gilbertson, *Signs* 222). This is a brief definition; later in this chapter, you will learn more about the implications of empowering readers.

What Counts as Technical Communication?

Technical communication is an extremely broad field. It encompasses a wide range of skills and writing types. The Society for Technical Communication, an international professional organization, says that technical communication is any item of communication that includes one or more of these characteristics (STC, “Defining”):

- ▶ Communicating *about technical or specialized topics*, such as computer applications, medical procedures, or environmental regulations.
- ▶ Communicating *by using technology*, such as Web pages, help files, or social media sites.
- ▶ Providing *instructions about how to do something*, regardless of how technical the task is or even if technology is used to create or distribute that communication.

STC offers a certification to become a professional technical communicator. In such a capacity, a communicator is able to do all of the following:

- ▶ **User, Task, and Experience Analysis**—Define the users of the information and analyze the tasks that the information must support.



- ▶ **Information Design**—Plan information deliverables to support task requirements. Specify and design the organization, presentation, distribution, and archival for each deliverable.
- ▶ **Process Management**—Plan the deliverables schedule and monitor the process of fulfillment.
- ▶ **Information Development**—Author content in conformance with the design plan, through an iterative process of creation, review, and revision.
- ▶ **Information Production**—Assemble developed content into required deliverables that conform to all design, compliance, and production guidelines. Publish, deliver, and archive (STC, “Certification”).

Technical communicators apply these skill areas to deliver diverse information products, including technical reports, articles, books, periodicals, tutorials and training, training materials, brochures, posters, websites, quick start guides, context-sensitive help, organizational manuals, quick reference, reference documents, user guides, and interactive knowledge bases (based in part on STC, “General”). Further, the content they produce may be drawn upon to meet other needs of the company or organization, such as sales and marketing, product development, and regulatory compliance.



Broadly considered, technical communication is a part of almost everyone's life on a regular basis.

Who Creates Technical Communication?

Two different types of writers create technical communication—technical communication professionals and those professionals who write as part of their jobs.

Professional technical communicators are hired to write the content that companies need to explain their products or services, often to help customers and technicians interact efficiently with the product or service. For instance, technical communicators work with software engineers to understand their software and then write guides and tutorials that users need. Whatever is needed to make information available to help people with their work, technical communicators produce.

Technical communicators are also those professionals who write about issues in their specific field or workplace. Sometimes these experts write for other experts. For instance, an engineer might write a progress report explaining to a division manager the actions and issues with a current project; a dietitian could write a proposal to fund a new low-fat breakfast program at a hospital; a packaging engineer may offer a solution for an inefficient method of filling and boxing jars of perfume. Sometimes these experts write to help nonexperts with technical material. Dieticians, for instance, often write brochures or Web content explaining the components of a healthy diet to hospital patients. Engineers write reports for nontechnical users, perhaps a county board, explaining an issue that has arisen in a bridge project.

examples

Both groups and their activities center on the basic definition of technical writing given by Killingsworth and Gilbertson. The goal is to empower readers who depend on the information for success.

How Important Is Technical Communication?

Communication duties are a critical part of most jobs. Survey after survey has revealed that every week people spend the equivalent of one or more days communicating. In one survey ("How do they"), engineers reported that they spend 34 percent of their time writing on the job. In addition they report that in their writing, they collaborate up to 30 percent of their time. E-mail takes up to 38 percent of their time. Bob Collins, a corporate manager, puts it this way: "The most critical skill required in today's business world is the ability to communicate, both verbally and in writing. Effective communication has a direct impact on one's potential within an organization." Holly Jeske, an assistant technical designer for a department store chain, says "communication is my job." Her comments demonstrate the importance and complexity of everyday, on-the-job writing:

I have to say that I depend a lot on my computer and e-mail for communicating with our overseas offices. I send and receive a lot of e-mails daily. A huge part of my job depends on writing and communicating in that way. I don't get the chance to hop on a plane every time there is a fit issue so that I can verbally communicate with them or even call them on the phone. . . . If I were never able to communicate through writing what I want the factory to change about a garment, I probably never would be moving from my current position. Communication is my job and pretty much anyone's job, . . . e-mail is a huge part of the corporate world.

Major Traits of Technical Communication

Technical Communication Is Audience Centered

Let's return now to the implications of our brief definition of technical communication—"writing that aims to get work done" and writing "to empower readers." What do those phrases imply? Technical communicators create documents that aim to help readers act effectively in the situations in which they find themselves. Janice Redish, an expert in communication design, explains that "a document . . . works for its users" in order to help them

- Find what they need
- Understand what they find
- Use what they understand appropriately (163).

In order to create a document in which readers can find, understand, and use content appropriately, writers need to understand how writing affects readers

and the various ways in which readers approach written content. *Audience centered*, in this larger explanation, means that technical communication

- ▶ Has definite purposes
- ▶ Enables readers to act
- ▶ Enhances relationships
- ▶ Occurs within a community
- ▶ Is appropriate
- ▶ Is interactive

Technical Communication Has Definite Purposes

Technical writers enable their readers to act in three ways: by informing, by instructing, and by persuading (Killingsworth and Gilbertson, "How Can"). Most writers use technical writing to inform. To carry out job responsibilities, people must supply or receive information constantly. They need to know or explain the scheduled time for a meeting, the division's projected profits, the physical description of a new machine, the steps in a process, or the results of an experiment.

Writers instruct when they give readers directions for using equipment and for performing duties. Writing enables consumers to use their new purchase, whether it is a garden tool or a laptop computer. Writing tells medical personnel exactly what to do when a patient has a heart attack.

Finally, with cogent reasons writers persuade readers to follow a particular course of action. One writer, for example, persuades readers to accept site A, not site B, for a factory. Another writer describes a bottleneck problem in a production process in order to persuade readers to implement a particular solution.

Technical Communication Enables Readers to Act

According to Killingsworth and Gilbertson, it is helpful to view technical writing as "writing that authors use to empower readers by preparing them for and moving them toward effective action" (*Signs* 221–222). "Effective action" means that readers act in a way that satisfies their needs. Their needs include anything that they must know or do to carry out a practical activity. This key aspect of technical writing underlies all the advice in this book.

Figure 1.1 (p. 7) illustrates this concept in a common situation. The reader has a need to fulfill a task that she must do. She must assemble a workstation. A writer, as part of his job, wrote the instructions for assembling the workstation. The reader uses the instructions to achieve effective action—she successfully assembles the workstation. This situation is a model, or paradigm, for all technical writing. In all kinds of situations—from announcing a college computer lab's open hours to detailing the environmental impact of a proposed shopping mall—technical writers produce documents that enable effective action. The writing enables the reader to act, to satisfy a need in a situation.

*In a
notebook*

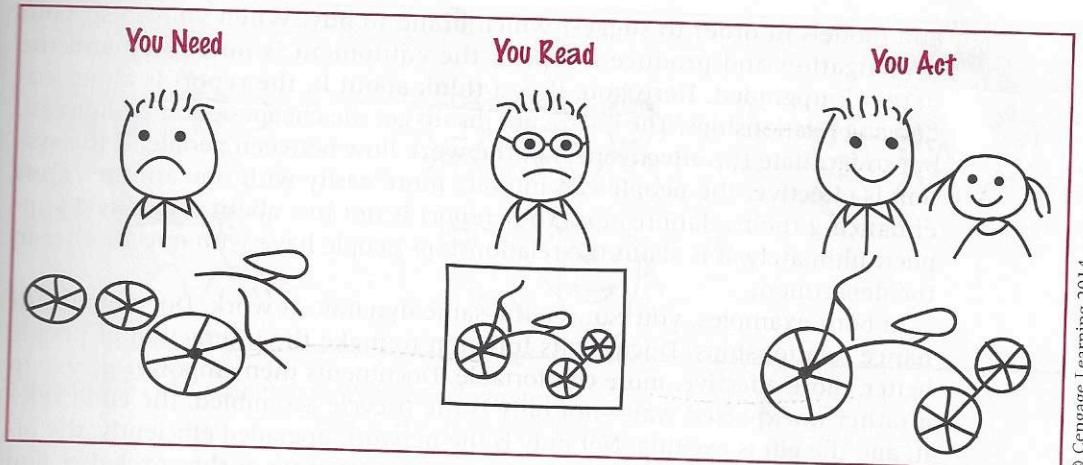


Figure 1.1 Writing Makes Action Possible

Technical Communication Enhances Relationships

The starting point for creators of documents is the realization that their documents enhance relationships (Schriever, "Foreword"). Audiences don't exist in a vacuum. They exist in situations. Those situations mean that they have relationships with many people. Writing, and all communication, enhances those relationships. Audiences read because documents help them relate to someone else.

This may strike you as a strange way to think about writing. Many beginners tend to see the goals of writing as "being clear" or "having correct spelling and grammar," both of which are fine and necessary goals. But the modern conception of writing asks you to consider the issues related to those goals later. First, you need to understand the relationship issue. Let's take a personal example. Suppose a father has to assemble a tricycle for a birthday present. To assemble it, he first opens the box it came in, reads the instructions included, collects the correct tools, and then puts the parts together. Perhaps he visits the manufacturer's website to view an assembly tutorial. He is able to assemble the trike because you produced clear instructional content, identifying the parts and presenting the steps so that at the end the father has completed a functional toy ready for a child to ride.

If you think about the example for a moment, you can see that the father is using your instructions to enhance his relationship with his child. His goal in this situation is not just to turn a pile of parts into a working machine. It is to give a present to another person, someone with whom he has an ongoing relationship. This present will enhance that relationship, and the content you produced is a helpful factor to that end.

Now let's take a business example. Your department is in the process of upgrading its computer network. Your job is to investigate various vendors

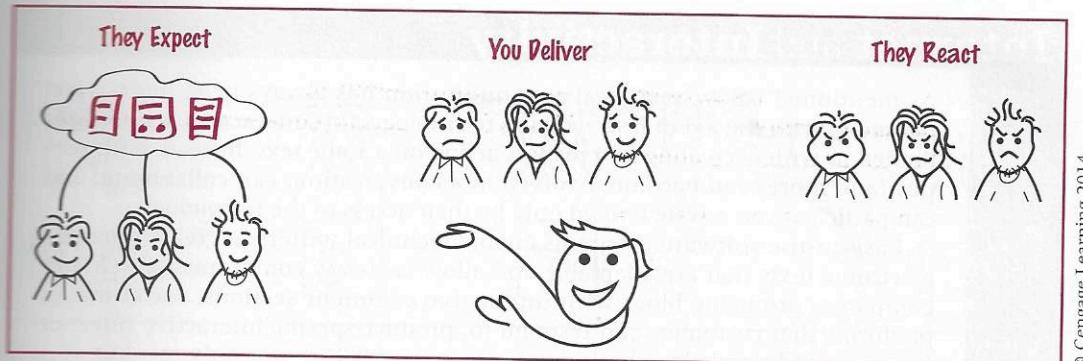
and models in order to suggest which brand to buy. When you finish your investigation and produce a report, the equipment is purchased and the network upgraded. Here, too, if you think about it, the report is about enhancing relationships. The goal is not just to get the cheapest, best equipment, but to facilitate the effectiveness of the work flow between people. If the system is effective, the people can interact more easily with one another, thus enhancing their relationships. Your report is not just about selecting a supplier; ultimately, it is about the relationships people have with one another in the department.

In both examples, you can see the same dynamic at work. Documents enhance relationships. Documents function to make the interaction of people better, more effective, more comfortable. Documents then empower people in a rather unexpected way—not only is the tricycle assembled, the child rides it, and the gift is exciting. Not only is the network upgraded efficiently, the office workers can cooperate in effective, satisfactory ways as they exchange and analyze their data.

Technical Communication Occurs Within a Community

Action occurs within a *community*, a loosely or closely connected group of people with a common interest. The key point for a writer to remember is that belonging to a community affects the way a person acts and expects other members to act (Allen; Selzer). Think about it this way: When people join a community, they learn how to act. For instance, at a new job people watch to see how everyone dresses and then dress similarly. If a man shows up at work on his first day in a three-piece suit and everyone else is in sport shirts and jeans, he will quickly change his clothing choices. But more than clothing choices, people learn how to communicate. In high school that might mean picking and using certain slang phrases, but on the job it means understanding how to present your material so that readers get the information that they need in the form that they expect it. This concept means that readers expect writing—all communication, actually—to flow in a certain way, taking into account various factors that range from how a document should look to what tone it projects. Effective writers use these factors, or *community values*, to produce effective documents.

If you conduct research into customer satisfaction to present to the sales force, they expect to know the method and results of your research. However, if you come to the meeting to report and you sing your report as if you were in a 1950s musical, you would not be presenting it in the form they expect. If you arrived with a perfectly formatted presentation, just like everyone else presents, and filled the entire report with lengthy details of all the personal concerns that made it hard for you to get the report finished, you would not be presenting the information that the sales managers wanted. The result very likely would be that no one would remember the contents of your report, only



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Figure 1.2 Writing Occurs Within a Community

that you were off base; you were not following the community's values. If you sang your reports three times over a few months, you would likely be fired (Figure 1.2).

One researcher (Schriver, *Dynamics*) found that one group failed to produce an effective brochure that delivered an antidrug message because the visual aid used in the brochure offended the teens' sense of what was the correct way to send the message. Rather than focus on the message, the teens focused on the image and, interestingly, on the writer. Their conclusion was that, like the singer in previous the example, the writer was off base and thus had little or no credibility. Other brochures on the same topic were rejected again and again because the writer had failed to find the "community connection" with the teenage audience (171–185).

In other words, community values affect the way you write. The writing you do is deeply affected by your awareness of what members of your community need and expect. They need certain facts; they expect a certain format. They cannot know how to act on the facts you discover until you give the facts to them in the e-mail. Technical communication is based on this sense of community. "We write in order to help someone else act" (Killingsworth and Gilbertson, *Signs* 6).

Technical Communication Is Appropriate

Because communication takes place within a community, it must be *appropriate*, which can have two meanings in communication: the material needed in the situation is present (Schriver, "Foreword"), or the material is socially acceptable (Sless).

The first meaning implies that the wording must be more than clear and well structured. Suppose, for instance, that a reader consults a user manual to discover how to connect a videogame system to a wireless home network. If that topic is not covered in the manual, or if the manual explains networking

Internet and Interactivity

As mentioned below, technical communication has always been interactive. However, with the aid of fast-evolving technology, this interaction is no longer limited to writers creating and readers acting on a static text. Instead, both parties (and more) can become involved in a conversation, can collaborate, and can participate on a scale limited only by their access to the technology.

Easy-to-use software programs enable technical writers to create dynamic electronic texts that are adaptable and allow two-way communication. Many companies are using blogs with interactive comment sections, social media platforms that customers can respond to, product-specific interactive Internet forums, and knowledge-sharing wikis to communicate not only to—but also with—their readers. The interactivity of these platforms means that customers contribute comments, questions, and content—all of which would have been unthinkable in the past. This subject will be covered in more detail in Chapter 11.

but does not deal with the particular steps needed to connect to the reader's particular network—in other words, if the reader can't find the instructions that she or he needs—then the manual is useless, or inappropriate. Writers must learn to conceptualize the reader's needs in several situations and create the sections that help her or him to act.

The second meaning deals with what can be called *social appropriateness*, or accurately representing the relationships in the situation. In this meaning word choice is often very important. Consider this sentence written in an e-mail: "I felt that there was needless repetition in what you wrote." That sentence can easily be read as a reprimand, indicating that the writer of the e-mail was unhappy with the reader, making the text a scolding. Not wishing to convey that impressing, the e-mail author rewrote the sentence: "I felt that the text would be easier to read if the sections were combined." That sentence takes the focus away from the scolder/scoldee relationship and turns it appropriately to the issue of combining texts for clarity.

Social appropriateness also has ethical and global dimensions, which are discussed later in this chapter. The ethical dimension arises because writing affects relationships and empowers action. The global dimension arises because readers may be members of communities based in other cultures than your own. Writers, aware of the role of writing to empower action, must learn to take into consideration the sometimes radically different needs of these other cultures.

Technical Communication Is Interactive

The key to all community exchanges is that they are interactive. Readers read the words in the document, but they also apply what they know or believe from past experiences. As the words and the experiences interact, the reader

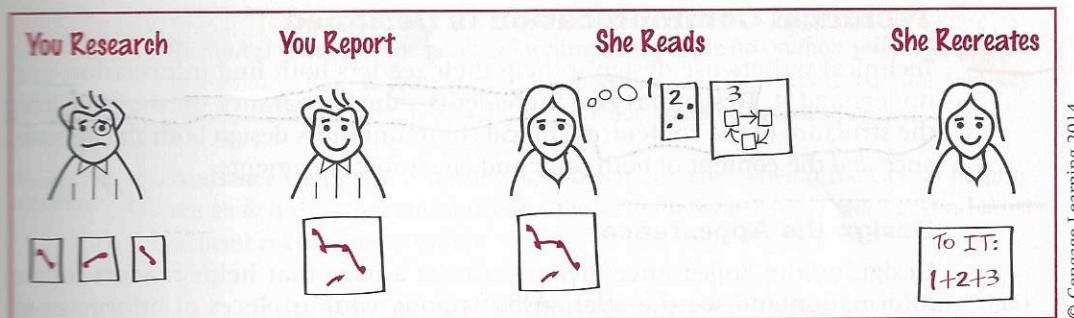


Figure 1.3 Communication Is Interactive

in effect recreates the report so that it means something special to him or her, and that something may not be exactly what the writer intended.

Figure 1.3 shows how this interaction works. The writer presents a report that tries to enable the reader to act. The writer has already completed researching the subject. Acting on an awareness of community values, the writer chooses a form (an e-mail), assembles the data into a coherent report (visualized here as “1,” suppose the fact is that the company Web page has received fewer hits in each of the past three months), and interprets those facts (perhaps you suggest that the color combination of the site is unattractive). The reader interacts with the e-mail, using the document’s words and format and her past experiences to make it meaningful to her. With her personal meaning, the reader may take a different course of action from the one that the writer may have intended. For instance (visualized here as “2”), because of reading a previous report (knowledge from a prior experience), the reader knows the Facebook page has had 200 “likes” this month and Twitter following has grown by 300 (visualized here as “2”). She also knows from attending a recent conference that websites must be actively integrated with Facebook and Twitter feeds (visualized here as “2”). With the knowledge gained from these sources, she can conclude that color scheme is probably not the problem, but the interaction of the three ways of sending out the company information. The statements in the report also tell her that the IT department needs to be informed because there is an obvious communication problem that must be resolved. The report is more than a report on a problem. Because the report is read interactively, the reader constructs meaning (visualized here as “1+2+3”) that tells her how to act in a situation that the writer in this case did not know about.

This interactive sense of writing and reading means that the document is like a blueprint from which the reader recreates the message (Green). The reader relates to certain words and presentation techniques from a framework of expectations and experiences and makes a new message (Rude; Schriver, *Dynamics*). Communication does not occur until the reader recreates the message.

Technical Communication Is Designed

Technical writers use design to help their readers both find information and understand it. Design has two ingredients—the appearance on the page and the structure of the content. Technical communicators design both the appearance and the content of both print and electronic documents.

Design the Appearance

Designing the appearance means creating a page that helps readers locate information and see the relationship among various pieces of information. Figure 1.4 (p. 13) illustrates the use of basic design strategies. You can tell immediately by the design that the message has two main divisions, that the first division has two subdivisions, and that the text in the second division is supported by a visual aid. Technical writers use this kind of design to make the message easy to grasp (Cunningham; Hartley). The basic theory is that a reader can comprehend the message if he or she can quickly grasp the overall structure and find the parts (Rude; Southard). The basic design items that writers use are

- ▶ Headings
- ▶ Chunks
- ▶ Visual aids
- ▶ Hyperlinks

Headings. Headings, or heads, are words or phrases that name the contents of the section that follows. Heads are top-down devices. They tell the reader what will be treated in the next section. In Figure 1.4 the boldfaced heads clearly announce the topics of their respective units. They also indicate where the units begin and end. As a result, the readers always have a “map” of the message, and, in online documents, can navigate easily to the information they need.

Chunks. A chunk is any block of text. The basic idea is to use a series of short blocks rather than one long block. Readers find shorter chunks easier to grasp.

Visual Aids. Visual aids—graphs, tables, and other media—appear regularly in technical writing. In Figure 1.4, the visual aid reinforces the message in the text, giving an example that would be impossibly long, and ineffective, as a piece of writing. Writers commonly use visual aids to present collections of numerical data (tables), patterns or trends in data (graphs), and examples of action (a short video clip showing how to connect to a computer network). Documents that explain experiments or projects almost always include tables or graphs. Manuals and sets of instructions rely heavily on drawings and photographs, and those delivered in digital format may include audio or video clips. Feasibility reports often include maps of sites. More discussion of visual aids appears in Chapter 7.

Hyperlinks. Specific to Web documents, hyperlinks are words embedded in the document that help the reader navigate to more information about a

Top
List two major sections of the document

Primary subdivision

Secondary subdivisions

Primary subdivision

Technical writing is the practical writing that people do on their jobs. The goal of technical writing is to help people get work done. This report explains two key characteristics of technical writing: audience centered and designed.

Audience Centered. Writing is audience centered when it focuses on helping the audience. To help the audience, the writer must help the reader act and must remember community values.

Help Act. Writing helps readers get a job done or increase their knowledge so that they can apply it another time in their job.

Community Values. Everyone who belongs to any organization agrees with or lives by some of that organization's values. The writer must be sure not to offend those values.

Designed. Technical writing appears in a more designed mode than many other types of writing. Design strategies help readers grasp messages quickly. Three key strategies are the top-down approach, the use of heads, and the use of chunks. Figure 1 illustrates the two methods. The first sentence is the top, or main, idea. The boldfaced words are the heads, which announce topics, and the x's represent the chunks or ideas.

There are two methods: heads and chunks.

Heads

XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX

Chunks

XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX

Figure 1.
Two Design Strategies

Remember, to be a good technical writer, always put your audience first and always design your material.

Figure 1.4 Sample Page

particular subject. Hyperlinks are denoted by a different-colored text, and are typically underlined. Clicking on a hyperlink within a document will take you to a different page—or a different location on the same page—that contains more information about the highlighted word or phrase.

Design the Content

Designing the content means selecting the sequence of the material and presenting it in ways that help the reader grasp it. Two common methods to use are

- ▶ Arrange the material top-down
- ▶ Establish a consistent visual logic

Arrange the Material Top-Down. *Top-down* means putting the main idea first. Putting the main idea first establishes the context and the outline of the discussion. In Figure 1.4 (p. 13), the entire introduction is the top because it announces the purpose of the document. In addition, the list at the end of the introduction sets up the organization of the rest of the document. When the reader finishes the first paragraph, she or he has a clear expectation of what will happen in the rest of the message. With this expectation established, the reader can grasp the writer's point quickly. Top-down messaging is especially important in Web documents, because Web readers have a tendency to scan information on a page. If they don't see what they're looking for right away, they will often navigate away from your page and find something else that gives them more quickly the information they seek.

Establish a Consistent Visual Logic. A consistent visual logic means that each element of format is presented the same as other similar elements. Notice in Figure 1.4 that the heads that indicate the primary subdivisions ("Audience Centered" and "Designed") look the same: boldfaced, the first letter of each word capitalized, and placed at the left margin. Notice that the heads that indicate the secondary subdivisions ("Help Act" and "Community Values") also look like each other, but differ from the primary heads because they appear indented a half inch. Notice the position of the visual aid, placed at the left margin, and the caption of the visual aid, italicized and in a smaller print size. If there were another visual aid, it would be treated the same way. The key to this strategy is *consistency*. Readers quickly grasp that a certain "look" has a particular significance. Consistent treatment of the look helps the reader to grasp your meaning. In fact, many companies and organizations have an official style guide that may require certain standards of formatting.

Technical Communication Is Responsible

Earlier sections focused on the audience and the text, but this section focuses on you, the writer. It is not enough just to help people act and to design your work to that end. Because readers count on you to be their guide, you must do what you can to fulfill their trust that you will tell them what—and all—they need to know.

In other words, technical writing is an ethical endeavor (Griffin). The key principle here is to take responsibility for your writing (Mathes). In short, technical communicators must act ethically as they create and present documents. “[C]ommunication has always been fundamentally about people interacting with other people, and ethical communication has always been about our responsibilities in relation to others” (Dombrowski, “The Evolving Face of Ethics” 317).

You take responsibility because your readers, your employer, and society—also called “stakeholders”—rightfully expect to find in your document all the information necessary to achieve their goals, from assembling a tricycle to opening a factory (Harcourt). According to one expert, “Ethically it is the technical writer’s responsibility to [ensure] that the facts of the matter are truly represented by the choice of words” (Shimberg 60).

In the text of your documents, then, you must tell the truth and you must do all you can to ensure that your audience understands your message. To help you with these important concepts, this chapter includes a definition of ethics and strategies to use for ethical presentation.

Definition of Ethics

Ethics deals with the question, What is the right thing to do? Philosophers since Plato have written extensively on the topic. It is a concern in daily life, in political life, in corporate life. Instances of its importance appear daily in our decisions about how to act and in news stories probing public actions. Ethics is a matter of judging both private and communal action. Individuals are expected to do the right thing, for their own personal integrity and for the well-being of their communities.

The issue, of course, is that the answer to the question, What is the right thing to do? is problematic. It is not always clear what to do or what value to base the decision on. Philosophers’ answers to that dilemma have not always been consistent, but in relation to communication several common threads have emerged.

One major thread is that the communicator must be a good person who cares for the audience. Communicators must tell the full truth as convincingly as possible, because truth will lead to the good of the audience. A second thread is that communicators must do what is right, regardless of the cost to themselves. A third thread is that communicators must act for the greatest good for the greatest number of people (Dombrowski 16–18, 45–62). Of course, there are many ethical standards and writers on ethics, but it is commonly held that one must act not for self-gain but for the good of the community, or for the stakeholders in the situation.

Ethical Situations

The situations in which a person would have to make ethical decisions, and consequences from those decisions, vary dramatically. For instance, there are “this could cost me my job” situations, or *whistle-blowing*, a practice protected in the United States by federal law. In these situations, the employee becomes

aware that the company is doing something illegal or that could cause great harm, perhaps because OSHA, FDA, or EPA standards are not being followed. For instance, before the terrible *Challenger* disaster, one employee had written a very clear report outlining serious problems concerning the O-rings. This report was subsequently used legally as the smoking gun to prove negligence on the part of those in charge. The writer subsequently lost his job, fought back, and was reinstated under the law, only to leave the company because of difficulties posed by remaining employed (Dombrowski 132–140).

This kind of decision—and action—is incredibly intense, requiring more than just a sense of what is the right thing to do. It requires courage to accept the negative consequences on self, and family, that losing employment entails. Each person must ask himself or herself how to respond in a situation like this, but the ethical advice is clear—you should blow the whistle.

Much more common, however, are the everyday issues of communication. People rely on documents to act. These actions influence their well-being at all levels of their lives, from personal health, to financial indebtedness, to accepting arguments for public policy. As a result, each document must be designed ethically.

Two examples from an ethics survey will give you a sense of the kind of daily decision that can be judged unethical. Dragga (“Is This Ethical”) interviewed several hundred technical communicators and asked them to evaluate these two issues, among others:

You have been asked to design materials that will be used to recruit new employees. You decide to include photographs of the company’s employees and its facilities. Your company has no disabled employees. You ask one of the employees to sit in a wheelchair for one of the photographs. Is this ethical?

You are preparing materials for potential investors, including a 5-year profile of your company’s sales figures. Your sales have steadily decreased every year for five years. You design a line graph to display your sales figures. You clearly label each year and the corresponding annual sales. In order to de-emphasize the decreasing sales, you reverse the chronology on the horizontal axis, from 1989, 1990, 1991, 1992, 1993 to 1993, 1992, 1991, 1990, 1989. This way the year with the lowest sales (1993) occurs first and the year with the highest sales (1989) occurs last. Thus the data line rises from left to right and gives the viewer a positive initial impression of your company. Is this ethical? (256–257)

Of the respondents, 85.6 percent found the first case and 71.8 percent found the second case “mostly” or “completely” unethical (260). Dragga found that the basic principle that the practitioners used was “The greater the likelihood of deception and the greater the injury to the reader as a consequence of that deception, the more unethical is the design of the document” (262–263).

If technical communication is ethical, how does one find out what is ethical behavior in technical communication situations? Dragga (“A Question”) pursued this question in 2009. He found out that experienced technical communicators suggest three actions: talk to your colleagues, trust your intuition, and talk to your boss (167–169). When Dragga asked, “Whom should you talk

to if you are asked to perform something you feel is unethical?" he found that communicators advised talking to your boss, to whomever asked you to perform the activity, and to colleagues.

Ethical considerations are integral parts of every project. In order to be a responsible member of the community, every communicator must investigate and find the principles—and courage—upon which to act ethically.

Codes of Ethical Conduct

Many companies and most professional associations—Johnson & Johnson and the American Marketing Association, for instance—publish codes of conduct for their employees or practitioners. These codes provide guidelines for ethical action. They include a variety of topics, but several are typically addressed: fundamental honesty, adherence to the law, health and safety practices, avoidance of conflicts of interest, fairness in selling and marketing practices, and protection of the environment (Business Roundtable).

In its Statement of Ethical Principles, the STC lists six broad areas of ethical standards: legality, honesty, confidentiality, quality, fairness, and professionalism. Your work for a particular employer will often also be guided by a corporate code of conduct, with which you should familiarize yourself.

Here is the STC code of ethics:

As technical communicators, we observe the following ethical principles in our professional activities.

Legality We observe the laws and regulations governing our profession. We meet the terms of contracts we undertake. We ensure that all terms are consistent with laws and regulations locally and globally, as applicable, and with STC ethical principles.

Honesty We seek to promote the public good in our activities. To the best of our ability, we provide truthful and accurate communications. We also dedicate ourselves to conciseness, clarity, coherence, and creativity, striving to meet the needs of those who use our products and services. We alert our clients and employers when we believe that material is ambiguous. Before using another person's work, we obtain permission. We attribute authorship of material and ideas only to those who make an original and substantive contribution. We do not perform work outside our job scope during hours compensated by clients or employers, except with their permission; nor do we use their facilities, equipment, or supplies without their approval. When we advertise our services, we do so truthfully.

Confidentiality We respect the confidentiality of our clients, employers, and professional organizations. We disclose business-sensitive information only with their consent or when legally required to do so. We obtain releases from clients and employers before including any business-sensitive

materials in our portfolios or commercial demonstrations or before using such materials for another client or employer.

Quality We endeavor to produce excellence in our communication products. We negotiate realistic agreements with clients and employers on schedules, budgets, and deliverables during project planning. Then we strive to fulfill our obligations in a timely, responsible manner.

Fairness We respect cultural variety and other aspects of diversity in our clients, employers, development teams, and audiences. We serve the business interests of our clients and employers as long as they are consistent with the public good. Whenever possible, we avoid conflicts of interest in fulfilling our professional responsibilities and activities. If we discern a conflict of interest, we disclose it to those concerned and obtain their approval before proceeding.

Professionalism We evaluate communication products and services constructively and tactfully, and seek definitive assessments of our own professional performance. We advance technical communication through our integrity and excellence in performing each task we undertake. Additionally, we assist other persons in our profession through mentoring, networking, and instruction. We also pursue professional self-improvement, especially through courses and conferences.

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To find out more about codes of ethics, browse through "Codes of Ethics Collection." Center for the Study of Codes of Ethics in the Professions at IIT. <http://ethics.iit.edu/ecodes/ethics-area/8>

Throughout this book, you will learn strategies for the clear presentation of language, format, and visual aids. Use these communication devices responsibly to ensure that your writing tells the audience everything they have a right to know. The audience trusts you because you are an expert. Be worthy of that trust.

Technical Communication Is Global

Today, business is international, and so too are writing and communication. As a result, people must now deal with the many languages and cultures throughout the world on a regular basis. For instance, since the passage of the North American Free Trade Act (NAFTA), many manuals for products sold in North America routinely appear in three languages—English, French, and Spanish. Workers, even at relatively small firms, indicate that they must e-mail colleagues across the globe. Websites, easily accessible to anyone in the world with a network connection, must now be understandable to people who speak many different languages and are members of many different cultures.

All of these factors mean that you as a technical communicator must understand the strategies of effective international communication.

While the goal of all communication is to use words and forms that enable the receiver to grasp your meaning (Beamer, "Learning"), in intercultural communication you need to give special consideration to cultural factors and to strategies for adapting communication for a variety of audiences.

The basic strategy for adapting writing and communication to other cultures is *localization*. Nancy Hoft defines localization as "The process of creating or adapting an information product for use in a specific target country or a specific target market" (12). According to Hoft, there are two levels to localization: radical and general.

Radical Localization

Radical localization deals with those areas that affect the way users think, feel, and act (Hoft 13). These areas include rules of etiquette; attitudes toward time and distance; the rate and intensity of speech; the role of symbols; and local systems of economics, religion, and society—even the way people go about solving problems (60–77). In order to perform radical localization you must be able to look at social behavior from another culture's point of view, so that you can understand the thinking patterns of the other person's culture, the role of the individual in the other person's culture, and that culture's view of direct and indirect messages (Beamer, "Teaching"; Martin and Chancey).

Another Point of View. Your ability to look at the meaning of behavior from a point of view other than your own is crucial to good communication. Failure to appreciate an alternative point of view results in culture bias. When a person exhibits culture bias, he or she sends a "community" message, indicating that the recipient is not part of the sender's community and that furthermore the sender doesn't care. This subtext to any message makes communication much more difficult. In order to eliminate culture bias, you need to investigate what is important to the members of the other culture (Hoft). The associations commonly made by one culture about some objects, symbols, words, ideas, and the other areas mentioned earlier are not the same as those made by another culture for the same items—and remember, the differences do not indicate that one group is superior to the other.

For example, in China the color red is associated with joy and festivity; in the West red can mean stop, financial loss, or revolution (*Basics*). In the United States, *janitor* usually means a person who maintains a building, and is often associated with sweeping floors. But in Australia that same job is called a *caretaker*—a word that in the United States usually means someone who maintains the health of another person (Gatenby and McLaren). To take another example (Hoft 74, 94), conceptions of authority may differ—the French often prefer to come to conclusions after appeals to authority, but many Scandinavians prefer more individual exploration. Levels of personal acquaintance differ in business relationships in other cultures. In the United States, people

Globalization and Cultural Awareness

Our world is shrinking incredibly. Almost every document has the potential to end up in the hands or on the screen of a person from another country and culture. The risk of miscommunication increases exponentially, and therefore in a technical communication context we face huge demands on our intellect, cultural understanding, and capability of being business-savvy.

English language and culture are not necessarily linked, because we see Scottish, Irish, English, American, Indian, and other local cultures where English is used as a language. English-study scholars talk about the *Englishes* of the world as a response to the combination of English and culture. Sometimes English is a common second language: a so-called lingua franca, a shared language used by two parties who each has a second language as his or her native language. Today, the most obvious examples of lingua franca English are found in international business, science, technology, and aviation. The multiple uses of English mean that the challenges of writing in English are huge.

In addition the varieties of English each express a culture, such as Irish or Indian. English used for one culture might make little sense when read by readers of another English culture. As companies are becoming international or partnering with multinational organizations, technical communicators need to become culturally informed. To use inappropriate language and be misunderstood may have enormous negative consequences. Likewise, lack of cultural adeptness may be interpreted as arrogance, elitism, or plain ignorance.

A good mental picture of the intricacies of culture is Hall's iceberg model. Spotting an iceberg in the sea, one sees only one-eighth of the ice; the main bulk is invisible under sea level. The visible parts of culture are what we say and what we do. That is the top one-eighth. The invisible parts are our norms and beliefs, assumptions, and values, as shown in Figure 1.5.

The English of one culture is built on a different iceberg from the English of another culture. The bottom of the Irish iceberg is different than the bottom of the Indian. It therefore takes some explanation to understand what "foreign" ways of behaving really mean. To understand the meaning of this excerpt of a newspaper article takes a lot of background knowledge (or awareness of the lower iceberg): "They frankly dislike the RSC's actors, them with their long hair and beards and sandals and roistering habits." The setting must be understood: England, Stratford-upon-Avon, Shakespeare, and the RSC people (Royal Shakespeare Company). In other words, not understanding the context and the deeper layer of knowledge and situation would make us fail to dive below sea level and decode the embedded cultural information (Swan).

Communicators within the same cultural circle need to understand context (or the bottom of the iceberg), too, but they need to express that context less explicitly. They know more about the layers underneath, and from the way people say, articulate, or gesticulate something or their body language in general, they know the codes for interpreting the sub-sea layers.

To decode other cultures, communicators need to do their desk research by studying the do's and don'ts of the cultures, either through books and cultural guides, or by learning the basics of the language. But the field research, by learning through actively participating, by listening, by asking is just as paramount to

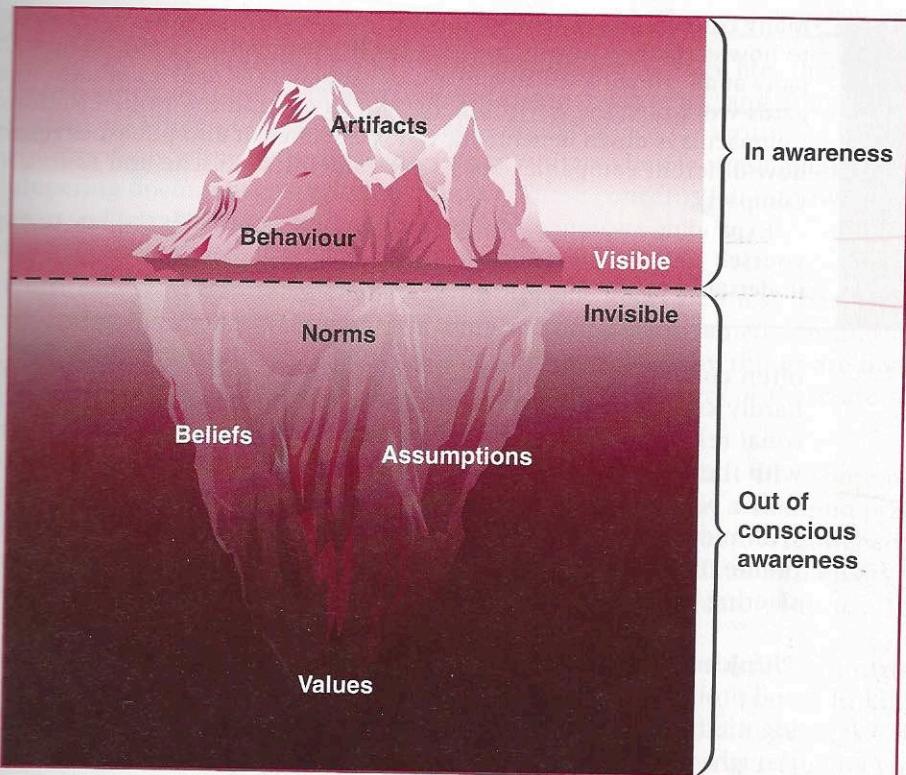


Figure 1.5 Hall's Iceberg Model of Cultural Awareness

Source: Based on Hall, E.T. and Mildred Reed Hall. Understanding Cultural Differences. Intercultural Press, Yarmouth. 1990.

become acquainted with other customs and needs. Developing a good cultural sensibility is not only good business, but it is the ethical thing to do.

The ethics of understanding other cultures, however, must always take its starting point in the understanding of the culture where a person or a company is based. Only then can a person start realizing, observing, and understanding other cultures.

During the 1980s and 1990s the idea developed that cultures globally would soon be unified and that all national and regional differences could be ignored. Coca-Cola followed this trend at first, but in 2000, it realized the fallacy of this as expressed by Coca-Cola CEO Donald Daft (Levitt)

The world was demanding greater flexibility, responsiveness and local sensitivity, while we were further centralising decision-making and standardising our practices, moving further away from our traditional multi-local approach. We were operating as a big, slow, insulated, sometimes even insensitive "global" company; and we were doing it in a new era when nimbleness, speed, transparency and local sensitivity had become absolutely essential to success.

(Continued)



Many corporations now have corporate social responsibility (CSR) guidelines as to how employees can address people in documents, as well as how the company at an overall level should request suppliers to obey minimum rules as regards work policies, environment, and so on, and the United Nations Global Compact lays down benchmark CSR guidelines. It also publishes results about how different companies obey CSR guidelines (Rasche and Kell; UN Global Compact).

Expanding awareness of the words and images used is the key to expressing yourself so that readers, irrespective of cultural assumptions and beliefs, will understand you.

often conduct business, including very large sales, with people whom they hardly know, but in many countries people prefer to achieve some kind of personal relationship before entering into any significant business arrangement with them.

The best method for gaining familiarity with another culture is to interact with members of that culture, whether those interactions occur in person or online. In order to communicate effectively, you must spend some time considering cultural differences and make changes in your documents accordingly.

Thinking Patterns. Much of U.S. thought focuses on cause–effect patterns and problem solving—identifying the causes of perceived effects and suggesting methods to alter the causes. In other cultures, however, a more common thought pattern is “web thinking.” In Chinese tradition, for instance, everything exists not alone but in a relationship to many other things, so that every item is seen as part of an ever-larger web, but the web is as important as the individual fact. These thinking patterns become part of the way people structure sentences. In American English, one says “I go to lunch every day,” but in Chinese, one says “Every day to lunch I go.” The first sentence emphasizes the individual, and the second emphasizes the web or context (Beamer, “Teaching”).

Role of the Individual. The individual is often perceived differently in a group dominated by web thinking, and web and group ideas can greatly affect the tone and form of communication. In the United States, long influenced by a tradition of individualism, many people feel that if they can just get their message through to the right person, action will follow. In other cultures, representatives of a group do not expect that same kind of personal autonomy or ease of identification from their readers.

Role of Direct and Indirect Messages. In the United States we teach that the direct method is best: State the main point right away and then support it with facts. In some other cultures, that approach is unusual, even shocking. Although in the United States a writer would simply state in an e-mail that he or she needs a meeting, in a web culture, like China’s, that request would come near the end of the message, only after a context for the meeting had been established (Beamer, “Teaching”).

General Localization

General localization deals with items, usually details of daily life, that change from country to country, for instance, date format, currency, and units of measurement. Much of the literature that contains advice for writing in a global context deals with these concerns. Expert writers change these details when preparing documents for another country. These concerns fall into two broad areas: culture-specific references and style.

Culture-Specific References. Culture-specific items are those that we use every day to orient ourselves. These items are often so ingrained that they are “invisible” to people in the culture—they are just the way things are done. The most common (based on Bacah; Hoft; Potsus; Yunker) of these are the following:

Time formats. Countries configure the calendar date differently; some use month/day/year, others use day/month/year. However, a common practice is to present dates in numeral format, for instance, 01/03/12. Depending on the common configuration, these numbers could mean January 3, 2012; March 1, 2012; or even March 12, 2001. Be careful to use the appropriate configuration.

Weights and measurements. The United States is one of the few countries that does not use the metric system. Most of the world travels in kilometers, measures in grams and liters, and is hot or cold in degrees Celsius. While it is easy to interpret those weights and measurements you are familiar with, if you are not, the numbers can be very difficult to translate into common experience. Change miles to kilometers, Fahrenheit to Celsius. Americans know it takes about an hour to go 60 miles, but in Europe it would be better to say 96 kilometers. In the United States 95°F is hot, but in France the same temperature is 35°C. Switching between systems is difficult, and you can help readers by performing the switch for them.

Currency. Try to express values in the country’s money. Americans know that \$8.50 is not a lot of money, but in Japan that figure is many hundreds of yen. (For help on the Web see, for instance, “XE—Universal Currency Converter” at <www.xe.com/ucc/>)

Number formatting. In English, the comma divides a number into thousands, then millions, and so on. The decimal point divides the number into tenths or less—1,234,567.89. But in other countries, the same numbers use different punctuation. In Germany, that number is 1.234.567,89.

Telephone numbers and addresses. In the United States, telephone numbers are grouped in threes and fours—715-444-9906, but in other countries they are often grouped by twos—33 (0)1 23 34 76 99. In the United States, it is common practice to address an envelope with the name at the top and list in descending order the street address and city. In some countries, Russia, for instance, the address list is reversed; the country is placed on the first line and the name of the person on the bottom line.

Page size. In the United States, the standard paper size is 8.5×11 inches; most documents are designed with these basic dimensions in mind. In many other parts of the world, however, the basic size is called A4 (8.25×11.66 inches). The difference in size can cause difficulties in copying material.

Style. Style items are the subjects of many articles on globalization. The goals of managing style are to make English easier to understand and to make it easier to translate. Many of the style tips are simply calls for good, clear, unambiguous writing. Here are a few common style items (based on Hoft 214–236; Locke; Potsus) to consider:

Avoid using slang and idioms. Most of these are simply impossible to translate:
He is a brick. She hit a home run with that presentation.

Avoid using humor. When a joke fails to get a laugh, the lame excuse is often, “You had to be there.” Much humor is so culture dependent that what is hilarious to people of one culture is nearly incomprehensible to people from another culture. Humor often just does not work except in very small communities. Good writers generally avoid humor in their writing for other cultures.

Avoid puns, metaphors, and similes. Metaphors and similes compare items to indicate worth or appearance. These devices are helpful, but only if the reader gets the point of the comparison. Puns are plays on words, often used in ads. But puns are virtually untranslatable. Use these devices only if you are sure the reader would understand them.

Use glossaries. If you must use jargon or other specialized language, be sure to include a glossary of definitions.

Don't omit little words: a, an, the, of, these. Often, they are omitted to save space and to get to the point, but their absence may obscure the exact nature of the phrase. Compare “Click down arrow to bring up menu” with “Click on the down arrow to bring up the menu.”

Include relative pronouns. The relative pronouns are *who*, *whom*, *whose*, *which*, and *that*. That is often the problem. A sentence like “A fire alarm losing power will beep” can be changed to “A fire alarm that is losing power will beep,” or “The switches found defective were replaced” can become “The switches that were found defective were replaced” or “Maintenance personnel replaced the defective switches.”

Don't use long noun phrases. Often English speakers string together a series of nouns. “Damage recovery results,” for instance, could be the results of damage recovery or the act of damaging those results. To avoid misinterpretation, rewrite the phrase for the non-native speaker: “results of the damage inspection.”

Avoid using homophones. Homophones are two or more words that sound alike but have different meanings, and may have different spellings—like damage, which can be a noun or a verb. “Damage results” can mean

"to damage the results" or "the results of the inspection of damage." To native speakers, the context often makes the meaning of these phrases clear, but non-natives often have trouble with the meaning.

Use clear modifier strings. Consider the phrase "black ergonomic keyboards and mouse pads." Does this mean that both the keyboards and mouse pads are black and ergonomic? Or just the keyboards? To help non-native speakers, you need to express the material in a more precise, though longer, form: "mousepads and black ergonomic keyboards" or "keyboards and mousepads that are black and ergonomic."

Write in clear subject–verb–object order. If speakers are not familiar with the rhythms of English language speech, they can become lost in the quickness and turns that sentences in English can take. Use the sentence order that it is likely non-native speakers learned in textbooks. Use "The director of the lab ordered new computers," rather than something like "Ordering lab computers was taken care of by the director."

If your text is to be translated, also be aware of these concerns: Leave space for expansion (Locke; Potsus). English phrases often expand in translation. Translated text can be as much as 30 percent longer in other languages. Even a simple Canadian highway sign illustrates this. The English text is *Chain-up area.* (13 spaces), and the French is *Attachez vos chaines ici.* (24 spaces). If you have pages designed so that text should fall at a certain spot, leave extra room in your English original so that after the translation and subsequent expansion, the text will still be relatively at the same spot.

Choose a simple font and avoid text effects (like boldface, italics, underlining) (Hoft; Locke). Many languages that use roman letters have diacritical marks that are not used in the United States (like Å or Ç). Custom fonts often do not include these letters, though "common" fonts, like Times New Roman, do. Many languages do use text effects, and these effects are simply not recorded in the translation, thus losing any emphasis they may have originally carried.

Web Copy

When it comes to writing for the Web, there are additional considerations for the technical communicator to address. Here is a helpful synopsis of many of the points made in this section as they pertain to website design (Gillette 17).

When designing a site for a professional, international audience, you must follow most of the standard international communication guidelines commonly used for printed documents, online help, and other forms of software design. In brief:

- Keep sentences short and to the point.
- Use simple subject–verb–object sentence structure.
- Avoid the use of embedded or dependent clauses.
- Use short paragraphs to allow for easier paragraph-by-paragraph interpretation.
- Avoid regional idioms or turns of phrase.