

DEFINITION OF TECHNICAL Communication

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	Major Traits 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 proposal 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).
- Use chunks (short paragraphs).
- Establish a consistent visual logic by making similar elements in your document look the same.
- 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 allows you to consider the audience's broad-based cultural beliefs, taking into consideration thinking patterns that they use. General localization allows you to present the details of your document in accord with 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 are either 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 writing types. For instance, each year the Society for Technical Communication, a 25,000-member professional organization, sponsors a contest to recognize excellence in technical communication. You can see the breadth of the field in this list of 18 categories, all of which count as technical communication:

- ▷ Annual Reports
- ▷ Books
- ▷ Computer Hardware Guides
- ▷ Documentation Sets
- ▷ Hardware/Software Combination Guides
- ▷ Informational Materials
- ▷ Magazines
- ▷ Newsletters
- ▷ Noncomputer Equipment Guides
- ▷ Organizational Manuals

- ▷ Promotional Materials
- ▷ Quick Reference Guides
- ▷ Scholarly/Professional Articles
- ▷ Scholarly/Professional Journals
- ▷ Software Guides
- ▷ Technical Reports
- ▷ Trade/News Articles
- ▷ Training Materials (Currie 21)

Saul Carliner, a former president of the Society for Technical Communication, points out that technical communicators create such diverse documents as manuals, technical reports, articles, books, proposals, catalogs, brochures, videotapes, audiotapes, online cue cards and online coaches, newsletters, magazines, e-zines, websites, and multimedia CDs (Carliner).

With such a variety, technical communication is a part of almost everyone's lives 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 documents that companies need to explain their products or services, usually to help customers interact efficiently with the product or service. For instance, computer manuals are a major component of this aspect of technical communication; technical communicators work with software engineers to understand the program and then write the manual that the users need. But as the lists above indicate, technical communicators produce all kinds of materials. 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 problems in their specific field or workplace. Sometimes these experts write for other experts. For instance, an engineer might write a report explaining the feasibility of a new airplane design; 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 explaining the components of a healthy diet to hospital patients. Engineers write manuals for nontechnical users and reports for nontechnical managers.

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, professionals in the aerospace industry revealed that they spend 68 percent of their time—three and one-half days—communicating (Pinelli et al. 9). Bob Collins, a corporate manager, put 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, especially now that 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 does that imply? It means that 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 interesting ways in which readers approach writing. *Audience centered*, in this larger explanation, means that technical communication

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

Technical Communication Enhances Relationships

The starting point for creators of documents is the realization that their documents enhance relationships (Schriver, "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 documents because they need to relate to someone else..

This is not a commonly held concept 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. He is able to assemble the trike because you wrote clear instructions, 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 your instructions are 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 computers are 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 computer, 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 a brand of computer; 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 are the computers installed efficiently, the office workers can cooperate in effective, satisfactory ways as they exchange and analyze their data.

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.

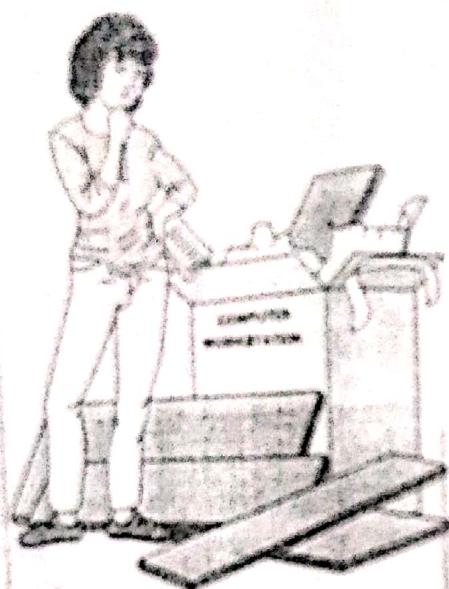
Figure 1.1 (p. 8) illustrates this concept in a common situation. The reader has a need to fulfill and a task that she must do. She must assemble a workstation. A writer, as part of his job, wrote the instructions for assembling the workstation. The reader uses the instructions to achieve effective action—she 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.

Technical Communication Occurs Within a Community

Action, however, 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). 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.

Figure 1.2 (p. 9) illustrates the community basis for writing. If you and I are employees of a company, we belong to the community of the company. We depend on each other to get our work done. We each have roles. In one of my roles, I visit job sites to investigate items our company has installed. In one of your roles, you oversee installation, interact with clients, and make decisions about the effectiveness of our product line. When I visit a particular site, I perform research to carry out some of my responsibilities. I examine all the appropriate items, speak to the appropriate people, and take appropriate notes. However, my responsibilities also include enabling you to carry out your responsibilities. So, when I return from the site visit, I write a memo that will enable you to act after you read it.

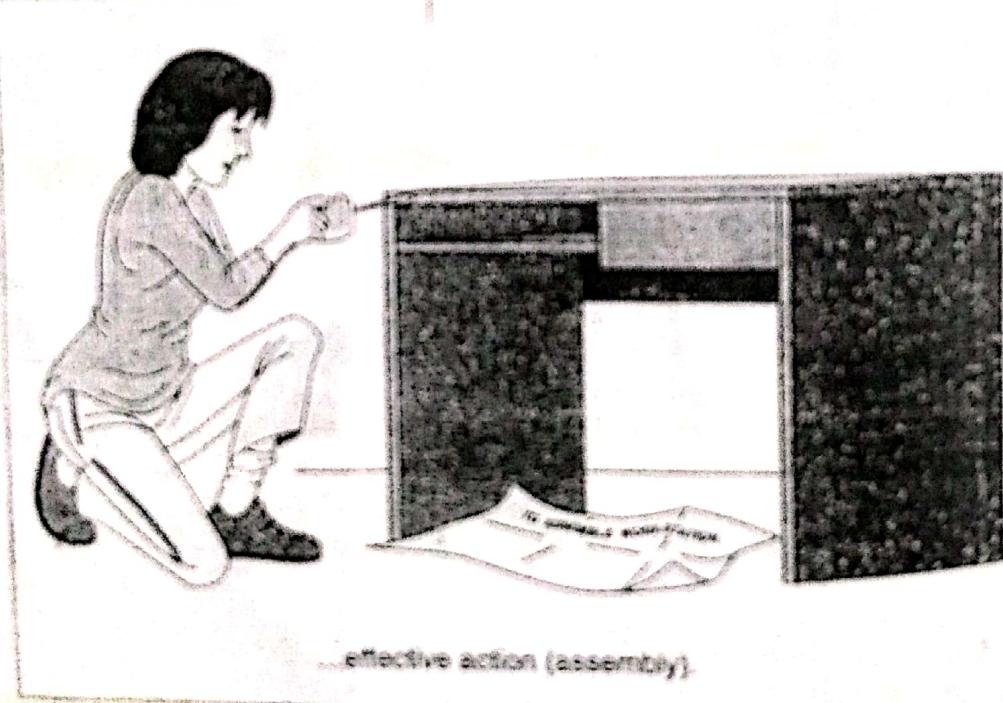
ing Makes
in Possible



Need: To assemble object.



Writing makes possible...



...effective action (assembly).

As I write that memo, community values affect the way I write. I know that you expect memos to appear in a certain format because the company has a policy about format. I know, too, that you need the information I have found. Therefore, I will write the memo in the tradition that a person in this company expects, briefly but succinctly explaining what I found. You will read the

Figure 1.2
Writing Occurs
Within a
Community

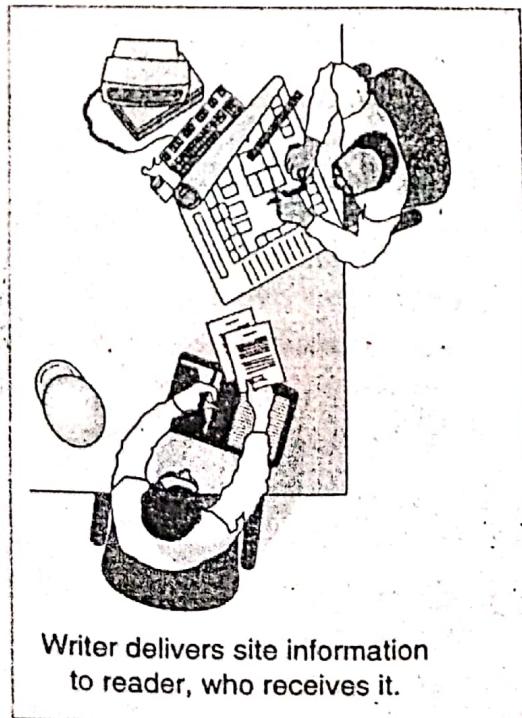


Writer must research site information.

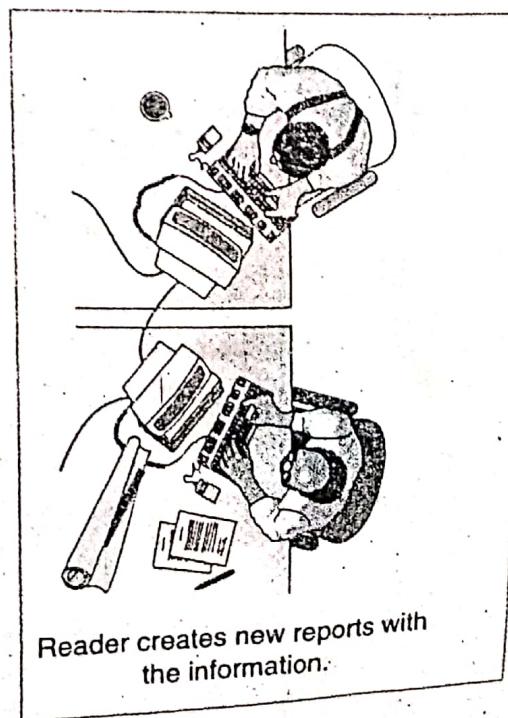


Reader needs site information.

Members have roles.



Writer delivers site information
to reader, who receives it.



Reader creates new reports with
the information.

Writing joins members together.

memo, grasp what I have done, and then use that material as you do your job. You in turn may have to rewrite this material into a report to give to your supervisor, thus enabling that person to act, and so on. The writing I do is deeply affected by my awareness of what members of my community need and expect. You need certain facts; you expect a certain format. You cannot know how to act on the facts I discover until I give them to you in a memo. 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 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 in effect recreates the memo so that it means something special to her, and that something may not be exactly what the writer intended.

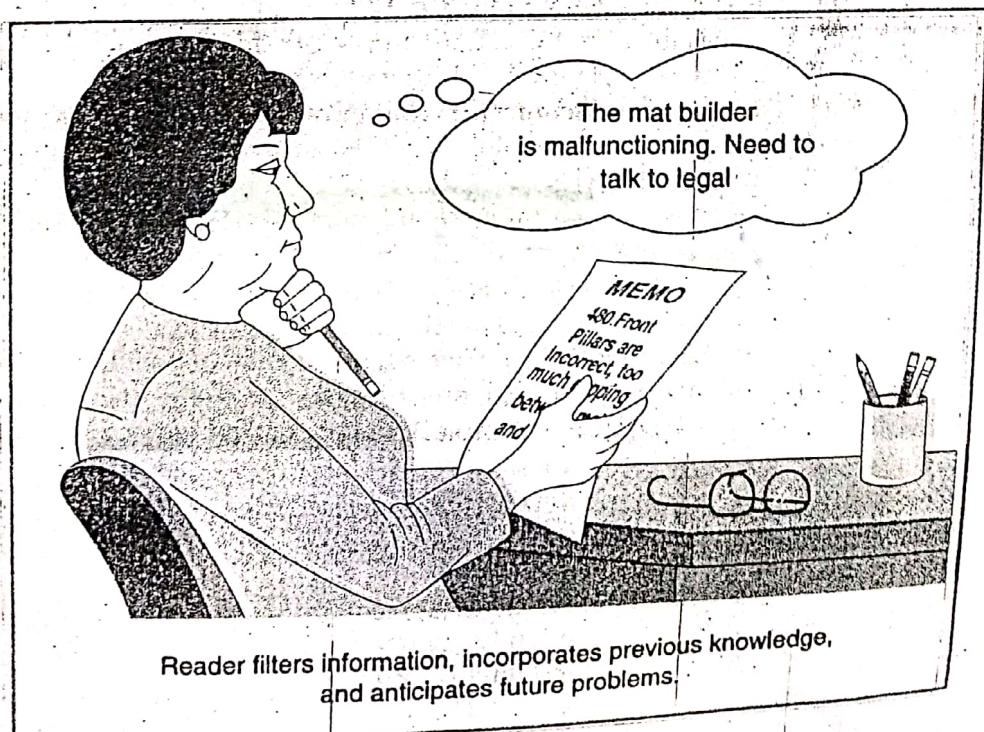
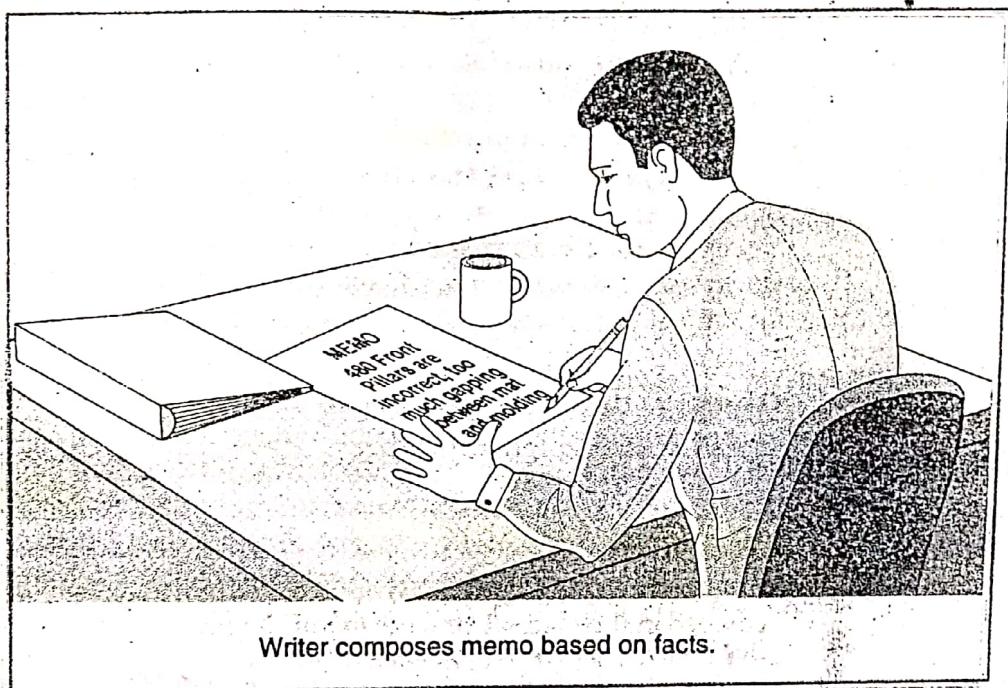
Figure 1.3 shows how this interaction works. The writer presents a memo that tries to enable the reader to act. Acting on an awareness of community values, the writer chooses a form (memo), mentions certain facts ("too much gapping"), and interprets those facts ("the pillars are incorrect"). The reader interacts with the memo, 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, because of reading a previous report (knowledge from a prior experience) the excessive gapping allows the reader to conclude that the machine that built the mat and molding needs repair. The statements in the memo also tell her that the legal department needs to be informed because there is a potential contract problem. **The memo is more than a report on a problem.** Because the memo is read interactively, the reader constructs a meaning 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 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.

Figure 1.3
Communication
Is Interactive



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 clock radio or a mainframe 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 Is Appropriate

Appropriate can have two meanings in communication; the material needed in the situation is present (Schrivener, "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 program a VCR that is connected to a digital TV. If that topic is not covered in the manual, or if the manual explains programming but does not deal with the particular steps needed to program the VCR/digital TV system—in other words, if the reader can't find the instructions that she 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. One writer, for instance, gives the example of being called a *client* by a governmental tax agency: "I do not mind paying taxes, but to refer to me as a client in that context is unacceptable; it is a misrepresentation of the relationship. I am not a client of the tax office but a citizen contributing to society through their office" (Sless 64).

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 in other countries are members of other communities based in other cultures. 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 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.

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 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

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, page 14, 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. They know where they are and where they are going.

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 drawings—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), trends in data (graphs), and examples of action (how to insert a disk into a computer). Documents that explain experiments or projects almost always include tables or graphs. Manuals and sets of instructions rely heavily on drawings and photographs. Feasibility reports often include maps of sites. More discussion of visual aids appears in Chapter 7.

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. 14), 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

Chapter 1 Definition of Technical Communication

Figure 1.4
Sample Page
top

list previous
organizations

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 memo 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

xxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxx

Chunks

xxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxx

Figure 1.
Two Design Strategies

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

happen in the rest of the message. With this expectation established, the reader can grasp the writer's point quickly.

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 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 five spaces. 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.

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. "What we write does have consequences, and we must accept responsibility for our words. The same is true for our images, sounds, web sites, or any other elements of communication" (Dombrowski 12).

The ethical dimension of writing is best expressed in this quote from Karen Schriver, an expert in document design:

Since people rely on documents to make decisions that influence their safety, livelihood, health, and education, the highest ethical standards must be brought to bear in making textual choices—in deciding what to say and what not to say, in what to picture and what not to picture. Taking responsibility for these choices is central to the practice of document design. Expert practitioners distinguish themselves by skillfully selecting, structuring, and emphasizing content with the reader's needs in focus. (*Dynamics* 11).

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 such as 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 values 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. Another thread is that the communicator must do what is right, regardless of possible outcome. 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 should 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 the consequences from those decisions, vary dramatically. For instance, there are "this could cost me my job" situations, or *whistle-blowing*, a practice protected 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 memo outlining serious problems concerning the O-rings. This memo was subsequently used legally as the "smoking gun" to prove negligence on the part of the company. The writer subsequently lost his job, fought back and was reinstated under the law, only to leave the company because of challenges 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 a courage to accept negative consequences on self, and family, that losing employment entailed.

Each person must ask him- 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 large 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. Sam Dragg 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). Dragg 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).

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.

Strategies for Communicating Ethically

Many of the areas that require ethical decisions are listed in the code of ethics of the Society for Technical Communication. In the code, among other items, STC lists these five tenets:

My commitment to professional excellence and ethical behavior means that I will

- Use language and visuals with precision.
- Prefer simple direct expression of ideas.
- Satisfy the audience's need for information, not my own need for self-expression.
- Hold myself responsible for how well my audience understands my message.

- Respect the work of colleagues, knowing that a communication problem may have more than one solution.

This section explains some implications of this code. In applying high standards in the choice of words and images, communicators use unambiguous language; use design honestly; use visuals with precision; use simple, direct expression of ideas; and credit the ideas or work of others.

Use Unambiguous Language. Suppose, for instance, that you are writing a manual for a machine that has a sharp, whirling part under a protective cover. This dangerous part could slice off a user's fingers. When you explain how to clean the part, you inform the reader of the danger in a manner that prompts him or her to act cautiously. It would be unethical to write, "A hazard exists if contact is made with this part while it is whirling." That sentence is not urgent or specific enough to help a user prevent injury. Instead write, "Warning! Turn off all power before you remove the cover. The blade underneath could slice off your fingers!"

However, the need for unambiguous language appears in other much less dramatic situations. Take, for instance, the phrase "When I click on the hyperlink, nothing happens." Anyone familiar with hypertext knows that this message is not accurate. Something always happens—a message window appears, the cursor moves to a point on the screen that you did not expect it to, or the original screen reforms itself. The phrasing "nothing happens" is so imprecise that it does not allow another person to act in a helpful way. How can someone fix it if she does not know what is wrong? But that phrasing also indicates a moral stance—"I am not responsible. It is your job. I will not take the time and effort to right this, whatever inconvenience it may cause you." This kind of ambiguous use of language certainly is not dangerous, the way the previous example was, but it is a refusal to take responsibility in the situation. As such, the language does not help other people achieve their goals. It is wrong, not just because it is imprecise, but because it does not help the stakeholders.

Design Honestly. Suppose that in a progress report you must discuss whether your department has met its production goal. The page-formatting techniques you use could either aid or hinder the reader's perception of the truth. For instance, you might use a boldfaced head to call attention to the department's success:

Widget Line Exceeds Goals. Once again this month, our widget line has exceeded production goals, this time by 18%.

Conversely, to downplay poor performance, you might use a more subdued format, one without boldface and a head with a vague phrase:

Final Comments. Great strides have been made in resolving previous difficulties in meeting monthly production goals. This month's achievement is nearly equal to expectations.

If reader misunderstanding could have significant consequences, however, your use of "Final Comments" is actually a refusal to take responsibility for telling the stakeholder what he or she needs.

Create Helpful Visuals. Suppose readers had to know the exact location of the emergency stop button in order to operate a machine safely. To help them find the button quickly, you decide to include a visual aid. The two examples in Figure 1.5 indicate an imprecise way and a precise way of doing so.

Use Direct, Simple Expression. Say what you mean in a way that your reader will easily understand. Suppose you had to tell an operator how to deal with a problem with the flow of toxic liquid in a manufacturing plant. A complex, indirect expression of a key instruction would look like this:

If there is a confirmation of the tank level rising, a determination of the source should be made.

A simple, direct expression of the same idea looks like this:

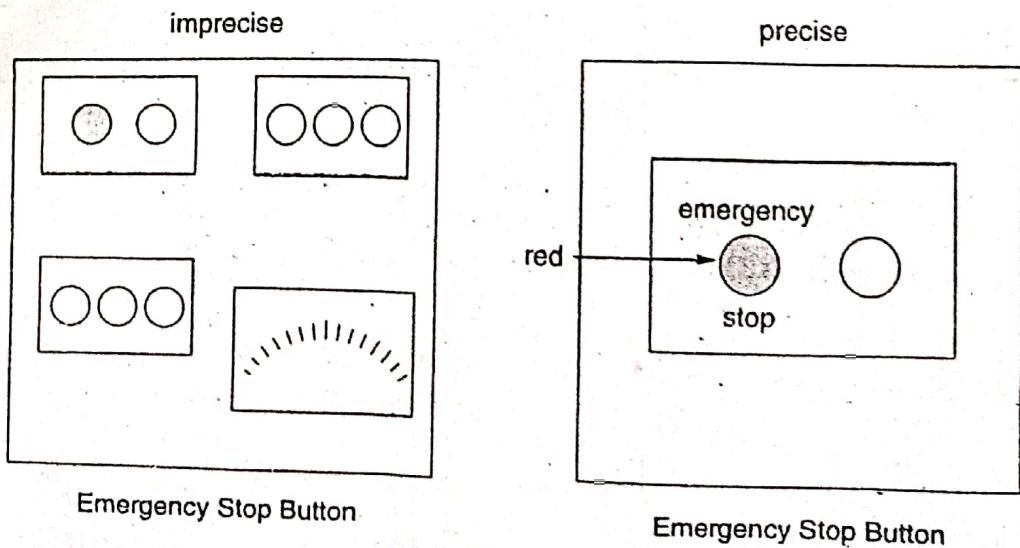
Determine if the tank level is rising. Visually check to see if liquid is coming out of the first-floor trench.

Credit Others. Suppose a new coworker has found a way to modify a procedure and save the company money. You are assigned to write the internal proposal that suggests the change. Your obligation is to present the facts so that your manager understands who conceived the idea—and who gets the credit. To do otherwise would be to deny your coworker proper credit for the idea.

Throughout this book, you will learn strategies for the clear presentation of language, format, and visual aids. Use these communication devices responsibly

Figure 1.5

Imprecise Versus
Precise Visual
Aids



to ensure that your writing tells the audience everything it has 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 user products 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 computer, must now be understandable to people who may speak many different languages and be 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*. Walter Bacah says, "Localization involves translating content and adapting it to local cultures—changing not only content, but also graphics, colors, time and date formats, units of measurement, currency, and symbols" (22). 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, to understand the thinking patterns of the other person's culture, the role of the individual in the other person's culture, and the 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. If you see the other point of view, you have no (or little) culture bias, and if you cannot see that point of view, you do have culture bias. When a person exhibits culture bias,

Globalization and Cultural Awareness

In our incredibly shrinking world, almost every kind of document produced has the potential to end up in the hands or on the screen of a person from another country and culture. This is both exciting and daunting. The potential for miscommunication is exponentially greater the farther from our home countries our communication moves, and not only because of translation issues. There are important cultural differences that must be considered. Establishing credibility has far-reaching implications. As more and more companies are themselves becoming international or partnering with multinational organizations, it is paramount that we become more culturally informed. To use language that is inappropriate and therefore misunderstood can have enormous negative consequences. Likewise, to commit a cultural faux pas can be understood as much more than just a social misstep—it can be interpreted as arrogance or elitism. We have a responsibility to our clients or coworkers to become acquainted with their customs and needs. Developing a good cultural sensibility is not only good business, it is the ethical thing to do.

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 above are not the same as those made by another culture for the same item—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 differ—the French prefer to come to conclusions after appeals to authority, but Scandinavians prefer more individual exploration. Levels of personal acquaintance differ in business relationships in other cultures. In the United States, people 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.

In order to communicate effectively, you must spend some time considering these 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, every thing 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 the facts. In some other cultures, that approach is unusual, even shocking. Although in the United States a writer would simply state in a memo that he or she needs a meeting, in a web culture, like China’s, that request would come near the end of the letter, 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 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 everyday 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 Bacan; Host; 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 prac-

month/date/year 23
Jan :

tice is to present dates in numeral format, for instance, 01/03/04. Depending on the common configuration, these numbers could mean January 3, 2004, March 1, 2004, or even March 4, 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 86°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. Many websites and newspaper columns regularly report currency exchange values. Americans know that \$8.50 is not a lot of money, but in Japan that figure is 1000 yen. (For help on the Web see, for instance, XE.Com The 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 two's—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 lists 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 Hofst 214–236; Locke; Potsus) to consider:

Avoid using slang, idioms, and jargon. 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 do use jargon, 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 just as often they 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-natives, 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 quick-

ness 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 in English and French illustrates this: Chain-up area. Attachez vos chaines ici. (13 spaces vs. 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 New York, do. Many languages do use text effects and they are simply not recorded in the translation, thus losing any emphasis they may have originally carried.

A Final List

Here is a helpful synopsis of many of the points made in this section (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.
- Avoid any visual, textual, or interactive metaphors based on a specific national or social context (e.g., mailboxes and envelopes vary from country to country so a mailbox icon that indicates "send mail" in the United States may just look like a blue box to the international visitor).
- Define technical terms as directly as possible, avoiding elaborate metaphor whenever possible.
- If you have any doubt about users' knowledge of a specific term, define it.
- Accompany all graphical buttons with a verb-based identifier (e.g., left-pointing arrow with "Go Back").