

## **PART II**

### **Techniques**

**PART II** is the bridge between the foundation skills of Part I and the applications of Part III. Chapter 8 tells you how to lay the groundwork for successful reports by gathering the information you need. Chapters 9 and 10 together show you how to organize your information in a meaningful way, whether it be to define, describe or argue. Chapters 11 and 12 deal with the visual elements that are so important in technical communication. Chapter 11 demonstrates how to produce documents that both look good and function well. Chapter 12 explores the world of graphics and tables.

### **SCENARIO**

You are the supervisor for the general contractor on a major construction project. This is your first assignment as supervisor on a building of this size, and you are eager to make a good impression on your bosses.

You have hired a number of subcontractors for various portions of the project. The subcontractors, in turn, have hired workers to complete specific jobs. Today you learned that some of the workers are not legal U.S. residents. If you keep them on the payroll, you will be breaking the law. You don't know what the precise penalties are for hiring undocumented workers, but if their illegal immigrant status were discovered you would probably lose your job. Yet if you cause the workers to lose their jobs, you will be depriving them of money that they and their families desperately need. Moreover, a delay in construction may cause you to miss the promised completion date, obliging your company to pay damages to the property owner. A delay wouldn't look good on your record.

You would like to speak to your bosses, but you decide that it would be foolish to go in to such a meeting without a better understanding of the law as well as your professional ethical responsibilities. You need information—a lot of it and soon.

### ***chapter 8***

#### **Gathering, Evaluating, and Documenting Information**

- ▶ Asking the Right Questions
  
- ▶ Looking for Answers
  - Interviews
  - Newsgroups
  - World Wide Web
  - Library

► Evaluating Answers

► Citing Sources

On the job you will often find yourself in situations requiring good research skills. You will need to know what questions to ask, where to look for answers, and how to evaluate the responses you receive from various sources. The ability to gather credible information efficiently will make you a more productive and valuable member of your organization.

Keep in mind that research is a continuous process of asking questions and receiving answers that prompt more questions. Whenever possible, try to cycle through this process again and again until you are sure that you have all the pertinent and reliable information necessary to make confident decisions or to take appropriate actions.

## **ASKING THE RIGHT QUESTIONS**

Efficient research starts with the right questions. You have to determine as specifically as possible what you already know and what you don't yet know about your subject. Consider these five questions:

- **What personal experience do I have regarding this subject?**
- **What have I read about this subject?**
- **What have I heard from friends or colleagues about this subject?**
- **What specific questions would I ask a specialist about this subject?**
- **What keywords would I use to investigate this subject in a library's catalog or on the World Wide Web?**

These five questions will give you a good start on your research by helping you to inventory your existing knowledge of the subject and to identify the gaps that you need to fill. As you proceed with your research and learn more about your subject, you will be able to refine and revise your research questions, and the answers to some of your questions will lead you to new questions and new answers.

For example, as you examine the issue of hiring undocumented workers, several good questions might come to mind: What are my legal responsibilities as a citizen? As the supervisor on this construction project? As a representative of my company? What is my company's responsibility here? What is its potential liability? Has a situation like this ever occurred at my company? If so, how was it resolved? Does my company's code of conduct address this issue? If so, what does it advise? What are my professional responsibilities as a civil engineer? Does my professional association's code of conduct address this issue? If so, what does it advise?

## **LOOKING FOR ANSWERS**

Once you know what you're looking for, you must decide where to start looking. Ordinarily, you will start with the most readily available sources and keep investigating until you have answered all your questions, exhausted your sources of information, or run out of time (and often you will run out of time).

A wide variety of information sources are typically available to you.

### **Interviews**

Interviewing subject specialists is a highly efficient way of researching. You ask specific questions and receive answers tailored to your specific questions. Whether the interview is conducted in person, over the telephone, by letter, or through e-mail, good preparation is essential to getting full and pertinent answers to your questions.

First, do enough background reading on your subject to allow you to ask sophisticated questions. Subject specialists will typically appreciate your research efforts and cooperate with the interview. On the other hand, if you could have answered your questions by reading a good encyclopedia, subject specialists are likely to think you are wasting their time.

Second, find out as much as possible about your subject specialists. What qualifies them to advise you in this area? Is it their education? Their job experience? Both? What have they said or written about this subject? What is their particular approach to the subject? What is their potential bias? What is their reputation within the profession?

Third, compose your list of questions, carefully targeting the areas of expertise of your subject specialists. For example, don't ask a practicing engineer about the origins of engineering ethics; instead, ask the president of the professional association of engineers or a scholar who has specifically studied this topic. Ask a practicing engineer about his or her experiences with ethical dilemmas. Don't ask a police officer your questions about immigration regulations; ask the director of the local immigration office or a lawyer who specializes in such cases. Ask the police officer about his or her experiences in working with the federal Immigration and Naturalization Service in matters involving undocumented workers.

Fourth, politely request the interview. Keep in mind that subject specialists won't be entirely forthcoming unless they understand your purpose. Identify the topic of the interview, explain how and when you would like to conduct the interview, tell why you chose this individual or group of individuals to interview, and let the party or parties know what you will do with the information you

receive. Request permission to quote your subject specialists; with a personal or telephone interview, ask permission to record the session to assure the accuracy of your quotations.

In developing your list of questions, consider the following guidelines:

Create questions that require explanations or evaluations instead of a simple yes or no answer. Instead of “Does your professional association prohibit the use of undocumented workers?” ask “What does your professional association advise about the hiring of workers who are not legal U.S. residents?”

Ask follow-up questions to encourage elaboration. Solicit details and examples. If you ask “What are the hiring risks for local contractors?” ask a follow-up such as “How likely is it that a local contractor will be caught?” or “When was the last time a local contractor was caught?”

Ask follow-up questions for clarification whenever you don’t understand a given answer. If possible, restate the answer in your own words and ask your subject specialist if your understanding is correct. For example, “So you believe the hiring of undocumented workers by local contractors is a fairly common practice? Is that right?” Here the yes/no question is necessary to prompt your source to confirm or discount your interpretation.

Early on, include questions that acknowledge your subject specialist’s expertise. By demonstrating that you have prepared for the interview by acquiring a basic understanding of the subject, such questions will encourage the specialist to give candid and comprehensive answers. For example, you could ask “In your 1999 article, “Ethics in Civil Engineering,” you said . . . Why do you adopt this position?” Or you might ask “You’ve been an INS agent for five years. In that time, how has the . . .?”

Keep your interview focused, always steering the comments of the subject specialist to your topic. Intercept the specialist if he or she drifts from the topic: for example, “That’s a good observation about the legal requirements. But let me ask you more about professional ethics. How did . . .?”

Following the interview, write a thank-you letter or e-mail message to each of your subject specialists.

## **Newsgroups**

Newsgroups are electronic communities of people from all over the world who exchange information about a common interest or affiliation by posting questions and answers to online bulletin boards. You will find one or more newsgroups to answer almost every question you might ask. For example, if you have a question regarding the immigration regulations of the United States, you could try

the misc.immigration.usa newsgroup or the alt.visa.us newsgroup. To find a newsgroup appropriate to your research, visit a directory site on the World Wide Web such as [www.cyberfiber.com](http://www.cyberfiber.com).

Newsgroups are either moderated or unmoderated. In a moderated newsgroup, all messages posted to the bulletin board are initially reviewed by the newsgroup's moderator. Acting as the group's editor, the moderator will accept timely, relevant messages for publication on the bulletin board, while declining to publish submissions that repeat earlier posts or are irrelevant to the group or otherwise of little merit. In unmoderated newsgroups, all messages are posted directly to the bulletin board without filtering or editing by a moderator.

If you are doing research within a newsgroup, keep in mind the following guidelines:

- **Upon joining a newsgroup, observe the discussion before you start to ask questions.** Remember that you're joining a conversation that is already in progress. It is polite to listen for a while before speaking yourself. By briefly "lurking" in this way, you will develop a clearer understanding of the purpose of the newsgroup, the nature and style of messages on the bulletin board, and the appropriate way to ask and answer questions.
- **If the newsgroup offers archives of previous messages or FAQs (frequently asked questions), review this material.** It will familiarize you with the major topics of conversation and keep you from raising a subject or asking a question that has already been discussed thoroughly.
- **Compose a clear and specific subject line to your message.** You want to be certain that participants who really know something about your topic will notice your message; you also don't want to waste the time of participants whose expertise lies elsewhere.
- **Keep your message to the point.** Don't ask newsgroup participants to scroll through paragraphs of unnecessary information to locate the questions you are asking or the answers you are offering. If you are asking a question, be as specific as possible. If you are answering a question, copy only the pertinent passages of the original question and try to give a brief but thorough answer.
- **Don't engage in "flaming" within the newsgroup.** Deliberately provocative and insulting comments disrupt the collaborative community that the newsgroup is designed to establish. If you consider a message genuinely offensive, comment off list to either the contributor of the message or the moderator of the newsgroup.

## World Wide Web

On the World Wide Web, billions of pages of information await your visit. For example, if you were investigating information on the professional ethics of civil engineers, you could visit the sites of the following professional associations:

ACI American Concrete Institute: [www.aci-int.org](http://www.aci-int.org)  
AISC American Institute of Steel Construction: [www.aiscweb.com](http://www.aiscweb.com)  
ASCE American Society of Civil Engineers: [www.asce.org](http://www.asce.org)  
ASTM American Society for Testing and Materials: [www.astm.org](http://www.astm.org)  
AWWA American Water Works Association: [www.awwa.org](http://www.awwa.org)  
BOCCA Building Officials and Code Administrators: [www.bocai.org](http://www.bocai.org)  
CERF Civil Engineering Research Foundation: [www.cerf.org](http://www.cerf.org)  
ISI International Iron and Steel Institute: [www.worldsteel.org](http://www.worldsteel.org)  
ITE Institute of Transportation Engineers: [www.ite.org](http://www.ite.org)

With millions of sites and billions of pages, the World Wide Web is the biggest library of information resources available. The entire government of the United States, for example, is accessible through the World Wide Web (see [www.fedworld.gov](http://www.fedworld.gov)). But how do you know what's out there? And how do you find what you're looking for? To help you navigate the World Wide Web, a variety of search engines are available, such as Alta Vista, Excite, InfoSeek, Lycos, and Yahoo. A search engine is a research service that scours the Internet looking for sites with keywords pertinent to your subject, listing the sites it discovers usually according to relevance to your subject.

A simple search looks only for the presence of keywords (e.g., *ethics*). A focused search looks for the presence or absence of specific combinations of keywords, using plus signs and minus signs as prefixes. For example, a search for *civil engineering ethics* asks for all files containing at least one of the three words: *civil*, *engineering*, or *ethics*. A search for + *civil* + *engineering* + *ethics* narrows the focus to only those files containing all three words: *civil*, *engineering*, and *ethics*. A search for – *civil* + *engineering* + *ethics* asks for all files containing both *engineering* and *ethics* but not the word *civil*.

Each service is a little different from the others—more or less comprehensive, more or less specialized. You might wish to try several search engines to see which directs you most quickly to the most appropriate sources for your subject or field. Also keep in mind that search engine firms are often paid to give priority to specific sites in their listings: that is, while one search engine might have been paid to list a site among its first five, a different search engine might list the same site tenth or twentieth in relevance to your subject.

Also available are metasearch engines such as MetaCrawler ([www.metacrawler.com](http://www.metacrawler.com)) and Search.com ([www.search.com](http://www.search.com)). A metasearch service will submit your key words to several search engines simultaneously, thus offering you a kind of one-stop shopping in your research process.

Keep in mind, however, that a visit to the World Wide Web can be a little confusing and intimidating. There is so much information available, and it is so easy to jump from site to site and link to link, that you may lose track of the pages you have already visited. Here are several tips to keep you from losing your way:

- Check the GO menu item. The GO menu item of your browsing software shows the footprints of your search: it lists all the pages you have visited since you left your home page. Clicking on a page from the GO list will immediately take you back to that page.
- Use the BACK and FORWARD buttons. When you leave your home page, your browsing software activates a BACK button that will take you back to pages you have already visited. When you back up, the FORWARD button is activated: it allows you to reverse direction and proceed to the last new page you visited. The BACK and FORWARD buttons allow you to retrace your steps. If you found useful information early in your search, but didn't note the specific page, use the BACK and FORWARD buttons to help you look for it.
- Use the BOOKMARK or FAVORITES function. When you find a page that you think will be particularly useful to you, especially a page that you might wish to visit often, use the BOOKMARK or FAVORITES function to note the location of that page. This menu item lists all the pages that have been so noted. Clicking on a page from the BOOKMARK or FAVORITES list will take you immediately to that location on the World Wide Web.
- Open multiple windows. Using multiple windows allows you to keep a page of information readily available while you continue browsing for additional information.

## **Library**

If possible, visit your local library and discuss your subject with a research librarian. Librarians are familiar with the library's resources—both paper and electronic—and are trained to assist visitors in finding answers to research questions. Librarians won't find the answer for you, but they will help to point you in the right direction.

On the job, however, you typically won't have time to make a physical visit to an outside library. A virtual visit will often have to do. In addition to the physical copies of books, journals, indexes, newspapers, and specialized encyclopedias, more and more libraries are subscribing to electronic sources of information, permitting you to do your library research simply by accessing the library's World Wide Web site. By acquiring and organizing the electronic versions of research materials, your local library thus opens the door to a world of information that might otherwise be unavailable to you.

**Encyclopedias** A good way to start your library search is by looking at the specialized dictionaries and encyclopedias that summarize key information on a subject. Such materials give you the basic understanding you will need before reading advanced books and articles or before interviewing subject specialists for pertinent details and up-to-date information.

In addition to paper versions of encyclopedias and dictionaries (typically housed in the library's reference room), a variety of electronic sources are available, such as *Encyclopedia Americana Online*, *Grolier Multimedia Encyclopedia Online*, or *Encyclopedia Britannica*.

Such electronic sources allow you to search quickly and efficiently by subject. For example, checking the word *immigration* in the *Grolier Multimedia Encyclopedia Online* leads you immediately to a brief history of immigration law in the United States, including discussion of the Immigration Reform and Control Act of 1986, which imposed penalties on employers who knowingly and willfully hired undocumented workers. It is this law that is pertinent to the situation on the construction project. The information in the encyclopedia thus allows you to focus your investigation. And your familiarity with this law gives you credibility during your interviews with subject specialists.

**Electronic Library Catalog** The electronic library catalog is a listing of all the books, periodicals, and miscellaneous materials such as maps, films, and audio and video recordings that a library houses. Traditionally, the library catalog was a series of file drawers of index cards listed in alphabetical order by author, title, and subject. Today, almost all libraries have computerized their catalogs, permitting quick electronic search by author, title, subject, and keyword (see Figure 8-1). For example, you might do a subject search using the words *engineering ethics*. Your search would identify several promising books and list all the information that you would need to locate the books in the library (see Figure 8-2).

The location of each item in a library has a specific numeric identifier known as a call number. Call numbers operate on one of two systems: the Dewey decimal system, dividing materials into 10 categories (see Figure 8-3), or the Library of Congress system, dividing materials into 21 categories (see Figure 8-4). Maps of your library show where the different categories of books are located.

Knowing how materials are classified in your local library allows you to go to a specific section of the library to browse the shelves. Often through simple browsing you will discover materials that you might never have otherwise located—a useful book, for example, that because of its unusual title failed to show up during your search of the electronic catalog.



**Indexes** While the electronic library catalog identifies the titles of the magazines and journals in your library, it can't tell you the titles of the specific articles published. To locate that information, you go to electronic indexes such as the Online Computer Library Center's FirstSearch, which includes both WorldCat (a database of all books in over 8,000 libraries) and ArticleFirst (a database of over 12,500 journals in a wide variety of fields). FirstSearch also gives you access to specialized databases such as the following:

- **Applied Science and Technology Abstracts:** abstracts of applied science and technology research
- **Business Dateline:** index of articles on regional business activities in over 500 magazines and newspapers
- **New York Times:** abstracts of all articles in the *New York Times*
- **Newspaper Abstracts:** abstracts of articles in 30 national and regional newspapers
- **Index to Legal Periodicals & Books:** index of articles in over 600 legal journals
- **GPO Monthly Catalog:** index of all publications of the Government Printing Office
- **Periodical Abstracts:** abstracts of articles in over 2,000 journals in a variety of fields
- **Social Science Abstracts:** abstracts of articles in over 400 journals in anthropology economics, geography, political science, law, and sociology,
- **Wilson Business Abstracts:** abstracts of articles in over 300 business magazines

For example, your research on the subject of *illegal immigration* would uncover a citation of a promising publication from the U.S. Department of Justice (see Figure 8-5).

## EVALUATING ANSWERS

With all the information that is available to researchers today, the difficulty isn't so much finding answers to your questions as it is determining which answers to trust.

With interviews, for example, you have quick access to the newest information on a subject, such as the findings from yesterday's experiment, but you sacrifice the review process that serves as a check and balance on the research of subject specialists. You receive the information directly from a subject specialist without a good gauge on the accuracy of the person's findings or the potential bias of his or her conclusions and recommendations. Unless you have a separate method for verifying the findings or judging the reputation of a subject specialist, you could be receiving erroneous or misleading information.

With newsgroups and the World Wide Web, similarly, you have the blessing of the widest possible participation in the creation and distribution of information: everybody's ideas and opinions are readily available for your consideration. The curse of such wide participation, however, is that misinformation is easily distributed by unreliable or unscrupulous sources.

With books and journal articles, on the other hand, the information you receive is often considered credible because it has been through a review process. Before publication of the material scholars in the field as well as editors and publishers examine the typescript—usually several times—to identify any incorrect or inconsistent material, which the authors of the original manuscript are then asked to eliminate or correct. While such information has high credibility, the review and publication process may well last as long as a couple of years. The information you receive, as a consequence, is never the newest information available.

Ideally, you will have several sources of information that will help you to achieve a credible balance of the most authoritative information available and the most up-to-date information available. If you receive identical information from both books and interviews, for example, you likely have good answers to your questions.

In addition, a variety of aids are available to assist you in judging the credibility of your sources. For example, erroneous information distributed in a newsgroup is often challenged by other newsgroup participants. So don't accept the earliest answer to your question in a newsgroup: wait to see if others support or dispute the posting.

In judging a book, check the book reviews written by specialists in the field to determine their opinion of the book's credibility. For articles, check the Letters to the Editor feature in later issues of the magazine or journal to see if readers have questioned any findings or conclusions. With published research, a good gauge of a source's credibility is the frequency with which it is cited by other scholars in the field.

To assist you in evaluating World Wide Web sites, rating services are available. For example, [britannica.com](http://britannica.com) is a service of Encyclopedia Britannica that classifies, describes, indexes, and evaluates World Wide Web sites. The editors of *Encyclopedia Britannica* rate sites on a scale of one to five stars according to the following criteria:

- Accuracy, usefulness, depth, and breadth of information
- Credentials and authority of the author or publisher
- Quality of design, graphics, and multimedia
- Ease of navigation
- Timeliness of revision

- Quality of graphics or multimedia

Sites considered by the editors to be without merit are excluded from the Britannica listings.

A search of britannica.com on the keywords *illegal + immigration* yields eight citations. The highest rated is the following:

**1996 Statistical Yearbook of the Immigration and Naturalization Service**

U.S. Department of Justice

Rating: \*\*\*

Overview of immigration to the U.S. with statistical tables.

Covers such topics as programs on immigration, refugees, asylum, temporary admissions, and naturalization.

Also presents statistics on illegal immigration and apprehension.

This site is an excellent source of data.

Similarly, a site such as about.com offers guided access to the World Wide Web. A trained legion of subject specialists directs you to pertinent sites offering credible information and monitors additional resources such as discussion groups and bulletin boards. Or consider a site such as askme.com, which allows you to ask questions of specialists in a variety of fields. The credentials of all specialists are listed, and each is rated on the usefulness of his or her answers to previous questions. You also have a choice of either reviewing answers to previous questions or asking a new question.

Ultimately, however, the decision to trust a source is yours. If you are using and distributing information, it is your reputation as a professional—your judgment as a researcher—that is at risk. To assess the credibility of your sources and the reliability of their answers to your questions, consider the following:

### **Interviews**

- What are the individual's credentials? Does he or she have appropriate and pertinent education and job experience?
- What is the individual's reputation in the field? Is he or she considered to be a national, regional, or local authority on the subject?
- Do you know a trustworthy specialist in the field who would recommend this individual as a source of information?
- Did you notice bias in the individual's comments? Was he or she cautious and careful in offering explanations and opinions or impulsive and imprecise?
- Did the individual support his or her opinions with sufficient and plausible evidence?
- Did the expert tell you anything that is contradicted by your other sources?

- Did the expert tell you anything that is verified by your other sources?

### **Newsgroups**

- Who participates in this newsgroup? Is it restricted to specialists in the field or accessible to the public? Do the participants have appropriate and pertinent education and job experience?
- What is the newsgroup's reputation? Is it widely considered a good source of credible information?
- Do you know a trustworthy specialist in the field who would recommend this newsgroup as a source of information?
- Did you notice bias in the answers to your question? Are the participants cautious and careful in offering explanations and opinions or impulsive and imprecise?
- Did participants support their opinions with sufficient and plausible evidence?
- Did participants tell you anything that is contradicted by your other sources?
- Did participants tell you anything that is verified by your other sources?

### **World Wide Web sites**

- Who operates this World Wide Web site? Does the site display the credentials of that organization or individual? Does that organization or individual have appropriate and pertinent credentials?
- What is the site's reputation? Is it widely considered a good source of credible information?
- Do you know a trustworthy specialist in the field who would recommend this site as a source of information?
- Do you notice bias in the information? Is the site designed to advertise? Or does it offer fair and impartial coverage of its topic?
- Does the site support opinions with plausible evidence? Does it try to educate or entertain?
- How timely is the information? Does the site display the date it was last modified?
- Is any of the information at this site contradicted by your other sources?
- Is any of the information at this site verified by your other sources?

### **Books and articles**

- Who wrote this book or article? Does the author (or authors) have appropriate and pertinent education and job experience?
- What is the reputation of the journal or book publisher? Is this journal widely considered to be a good source of credible information? Does this publisher ordinarily publish highly regarded books?
- Do you know a trustworthy specialist in the field who would recommend this book or article as a source of information?

- How often is this book or article cited in other publications on this subject?
- Do you notice bias in the book or article? Is the author cautious and careful in offering explanations and opinions or impulsive and imprecise?
- Does the author support opinions with sufficient and plausible evidence?
- How timely is the information?
- Is any of the information in this book or article contradicted by your other sources?
- Is any of the information in this book or article verified by your other sources?

## CITING SOURCES

If you use information from interviews, newsgroups, World Wide Web sites, books, or articles for a document you are writing or a presentation you are delivering, you have a moral and a rhetorical obligation to acknowledge your sources. Your moral obligation is to give appropriate credit to the individuals who deserve it—the people who composed the words, created the illustrations, or developed the ideas you are borrowing. Citing sources also serves the rhetorical function of bolstering the credibility of your investigation because it allows you to attribute your findings to pertinent subject specialists.

Depending on the rhetorical situation, you may choose a formal or informal method for acknowledging your sources. In a formal system of citation, your references will require specific and consistent formatting (see Documentation in Appendix B for examples). A formal system of citation is particularly important if your document or presentation might be used by others to conduct subsequent research. The consistent formatting of citations will assist researchers in locating the sources you used.

If your document or presentation will be used by others chiefly to make decisions or take actions (i.e., by individuals managing information instead of creating information), a formal system of citation may be unnecessary). If informal citation is appropriate, you might acknowledge your sources by simple tagging:

- According to Lew Pauley's *Immigrants and Immigration*, . . .
- In a recent interview, Timothy Cooper of the Immigration and Naturalization Service told me that . . .
- Information from the Department of Labor ([www.dol.gov](http://www.dol.gov)) indicates that . . .

Keep in mind that the citation of sources offers you the opportunity to demonstrate that your research has been fair and thorough. If your list of sources, for example, omits a major book on your topic or the World Wide Web site of the organization you are investigating, your readers would have cause to doubt the validity of your findings. Similarly, if all your information comes from a single source or a single kind of source (e.g., all interviews), your readers would likely consider your research to be biased or incomplete. Your list of sources is

often a good indicator of the quality of your investigation and the merits of your conclusions and recommendations.

## **EXERCISES**

1. Choose a topic of importance to your major or minor. Familiarize yourself with the topic by reading the information available in one of the online encyclopedias such as [www.encyclopedia.com](http://www.encyclopedia.com). After you have completed this introductory reading, devise a series of questions about the topic that you would like to ask a subject specialist.
2. Interview a professional in your major or minor regarding your topic. List the criteria according to which you chose this individual and assessed the credibility of his or her answers to your questions.
3. Find a newsgroup that might offer answers to questions about your topic? How did you locate this newsgroup? Who are its participants? How active is it? How helpful are the participants? How credible is the information that is exchanged?
4. To locate information on the World Wide Web, use a series of keywords regarding your subject on four different search engines. Note the similarities and differences in the listings of the four search engines? Which sites appear on all four lists? Which sites appear on only one list? Are the same sites listed higher or lower on different lists? Why?
5. Using the rating service [britannica.com](http://britannica.com), submit the same series of keywords regarding your subject. Which World Wide Web sites are listed by this rating service? Which sites identified by the rating service as credible sources were also listed by the search engines? Do you agree or disagree with [britannica.com](http://britannica.com)'s evaluation of the sites?
6. By interviewing professionals in your major or minor or by researching in the library, identify a noted authority on your specific subject. What speeches or publications are the basis for this individual's reputation as a highly authoritative scholar? Locate copies of his or her publications. How readily available are such publications? How often is this individual cited by other scholars in the field? Give examples of such citations from books, magazine and journal articles, or World Wide Web sites.

**FIGURE 8-1 • Searching the Electronic Library Catalog**

**FIGURE 8-2 • Listing for a Book in an Electronic Library Catalog**

**FIGURE 8-3 • Dewey Decimal Classification System**

**FIGURE 8-4 • Library of Congress Classification System**

**FIGURE 8-5 • Citation of a Government Publication in FirstSearch**