Chapter 8: Using Databases

Jane Shoop

Learning Objectives:

- Identify the roles, benefits, and considerations of databases for research
- Explore the variety of electronic databases available
- Practice the common concepts of searching electronic databases, including keyword, subject searching, and Boolean Operators

Introduction

Libraries offer an increasing number of electronic resources, including CD-ROMs, library catalogs, reference databases (i.e., encyclopedias, dictionaries, directories), periodical databases, and the Internet. Although the content and instructions vary from one database to the next, the underlying concepts are the same. Concepts and processes covered in this chapter will help you understand the steps and strategies that apply to all types of databases.

The Internet has allowed libraries to offer more and more online database subscriptions that their users can use with access to a computer and the Internet. SCCC library’s databases are available through the Library’s home page. You can also find a variety of databases through your public library, which may require a library card and Internet access. Because public libraries emphasize popular reading over academic research, their databases may be less scholarly.

Databases have several advantages. They offer:

- **Up-to-date information.** Some databases are updated as often as daily.
- **Efficient searching.** Many databases allow you to search multiple years at once.
- **Content.** Many databases now include some or all of the full content, or full text, of the information they cover.
- **Easy access.** Most databases are accessible from any computer connected to the Internet, so users can search anytime anywhere.
- **Different formats.** Some databases include audiovisual features such as sound and images.

An obvious limitation of online searching is that it depends on a connection to the Internet, and when that connection fails, the databases are unavailable.

What is a Database?

A database is a collection of data organized so its contents can be easily accessed, managed, and updated. A database contains a record for each entry; each record contains a field for each type of information included in each record.

A phone book is a simple example of a database that collects names and addresses of individuals, usually limited by a broad geographic region. Each person listed in a phone book is represented by a record, which includes all the information related to that person. Each record is divided into fields. Typical fields in a phone book include name, address, and phone number. Fields keep each type of information in the database organized. 'Ballard Camera' belongs in a field for business names;
'Ballard Avenue' belongs in the street or address field. Without fields, the phonebook would be very difficult to use!

In research databases, each book, videotape, or article is represented by a record. Typical fields are author, title, publication, date, subject, and text. All of the databases you will encounter in this course include bibliographic citations; many of them include the full content of articles, or the full text.

**Words Representing the Topic**

To search effectively, you'll need some familiarity with your topic and the vocabulary related to it. Listing synonyms, broader terms, and narrower terms for each concept helps you understand how your topic will be expressed in a database. The process also helps you further focus your topic.

**Sample topic:**

*Some studies assert that downloading music actually boosts record sales. What is the impact of recording piracy on the record industry?*

**Music piracy**

*Synonyms: file-sharing*

**Broader terms:** digital copyright, music industry, digital music

**Narrower terms:** Napster, Mp3

Once you have thought about your words, the next step is to begin searching a database. First consider what type of information you need. Library catalogs provide access to the books and other materials owned by a library; periodical databases offer indexing and full text for articles published in magazines, newspapers, and journals; and search engines offer links to all kinds of Web sites. What databases all have in common is that they help you locate information.

Visit the Library’s [home page](#) to select the most appropriate databases for your topic. Most bibliographic databases allow you to search for information by subject, keyword, and specific field (such as author or publication title).

**Subject Searching**

A subject search involves only the subject (sometimes called descriptor) field of the database. In most databases, each record (e.g. article, book, etc.) has one or more subjects. The catalogers or indexers who assign subject headings all use the same pre-determined vocabulary (a thesaurus) so all articles on the same subject can be found using the same subject heading.

**Keyword Searching**

In contrast to subjects, keywords are words or phrases used in the record. Most databases search for keywords from fields that have descriptive content such as title, subject, abstract, and even the complete text.

One of the great advantages of electronic searching is that you can quickly search for words that might be included in articles or books of interest to you. However, keyword searching on the Web and in other full text databases can produce huge results because your search words or phrases come from the text of articles. In a keyword search, the database finds records containing keywords without regard to the intended “meaning” of the search. Subject searching can improve search results by searching only the subjects that actually describe the content of each item.
The major differences between subject and keyword searching:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Keyword</th>
</tr>
</thead>
<tbody>
<tr>
<td>Searches only the subject or descriptor field</td>
<td>Searches in a number of fields; may include full text</td>
</tr>
<tr>
<td>Subjects come from the database thesaurus</td>
<td>All significant words or phrases in records can be keywords</td>
</tr>
<tr>
<td>Number of items is generally smaller</td>
<td>Number of items is generally larger</td>
</tr>
<tr>
<td>Retrieves very relevant information</td>
<td>More likely to retrieve both relevant and irrelevant information</td>
</tr>
</tbody>
</table>

**Putting terms together: Boolean Logic**

When you enter more than one search term, the database must interpret how to process the search. Suppose you enter music industry. You know that you are looking for the two words as a phrase, but the computer may not. It may search for the words music AND industry as two separate words, which might retrieve articles about industry (with only a mention of music) or something else irrelevant to what you want. Some databases require you to enclose phrases with quotations ("music industry ") in order to search as a phrase.

If your search terms are not a phrase, you must use connectors to tell the computer how to search. The common connectors are AND, NOT and OR. These connectors are called Boolean Operators or Logical Operators. The illustration below shows the effects of using each of these connectors. (Note that some databases also use symbols such as + (plus) or - (minus) to achieve similar effects.)
**Truncation**

Databases that offer keyword searching usually allow searchers to use truncation and wildcards. A truncation symbol tells the computer to find all words that begin with the letters you typed, regardless of how the words end, so that the word fragment you enter is the trunk of a tree and all the possible endings are its branches. Truncation broadens a search, increasing the number of records retrieved.

Below is an example using the truncation symbol ‘?’:

**If you type this as a keyword: The computer will find:**

```
learn?
```

```
learn
learns
learner
learners
learning
```

A wildcard is a symbol that can be used to replace a letter in the middle of a word. Wildcards are especially helpful with variant spellings or word forms. For example, wom*n can be used to search for both woman and women. Databases use various symbols for both purposes.
Common symbols are: $, #, +, *, !, ?. Check the help sections on individual databases to determine the correct truncation symbol to use. Be careful with truncation. Consider for example, the results if you typed in ‘cat*’ as a truncated keyword.

We have seen how the combination of keywords, Boolean operators, and truncation are used to locate relevant information. Limiting a search and expanding a search are additional strategies. Search results can be limited by author, date, title, and peer reviewed sources or expanded by using broader search terms or searching within the full text of articles. A common strategy for limiting is to search specific fields. Make sure to check the advanced search, guided search, and help screen features of databases.

**Thought Questions:**

- Define *database* as it is used in this chapter.
- Name the three *Boolean operators* and define each.
- What is meant by the term *truncating* as applied to database searching?
- Explain the difference between a *subject search* and a *keyword search*. 
Chapter 9: Finding and Using Books
by Sharon Spence-Wilcox

Learning Objectives:
 Understand the role of books in the research process
 Identify Library of Congress Subject Headings to find relevant books
 Develop effective strategies for searching library catalogs
 Evaluate the quality and relevance of the books identified for your research needs

Introduction
Most people still think of books when they hear the word “library”. Books are a special source of detailed information on a wide range of subjects, both popular and scholarly. In the changing environment of information technology, you can read electronic books as well as the traditional printed variety.

If you need in-depth review, detailed reports and studies, or a retrospective analysis of your topic, a book can contribute content and context not available in other sources. Keep in mind that some academic disciplines place more value on books than others (for example, historians rely heavily on books for research, while biochemists usually prefer periodical literature).

As a researcher, you should recognize that books are only one of several different kinds of sources. Because a book must be written, edited, printed and published, purchased, cataloged, and finally placed on the library shelf, the information in a book is less current than what you can read online or in a periodical (review the Information Cycle discussed in Chapter 2). However, the information in a book may still be important and relevant: it may turn out to be the most valuable source for your particular topic.

Finding Books
At this point in the research process, you should have a fairly well defined idea of what you are looking for. However, finding appropriate books requires careful searching and evaluation. Don’t be satisfied with just any book on a topic; look for the best information about your specific topic.

The tools for finding books are the library catalog and bibliographies. Web sites and current periodical literature sometimes include references to important books. Many libraries provide access to electronic book collections through their library catalogs or the library Web site. Be open to leads that take you to ideas and sources you have not thought of. The key terms you use to describe your specific interest will help you to identify appropriate subject headings and helpful keywords for your book search.

When you identify a promising book in the library catalog, look at the full record (description) of the item and check the subject list. Then explore useful subject headings you may not have tried. The record will also identify the location of book. Go to that shelf location and explore the other books around it. This strategy often leads to additional, helpful titles.
Evaluating Books

Once you have a book in hand, examine it closely. Browse the table of contents and appendices. Note what kind of book you are looking at (textbook, monograph, collection of essays, scholarly study). Try finding specific index entries to see how your topic might be treated. Note whether the author sends you to other sources. Look for relevant books on nearby shelves that might provide multiple perspectives or historical information about research on your topic.

Using the criteria in Chapter 5, evaluate the books that provide new information on your topic. If a book promises to be useful, note the citation information and the call number, and take careful notes. If you do not (or cannot) check out the book, you may not be able to use it again before your paper is due.

The Library Catalog

The library catalog is your primary tool for accessing books in the library. It can help you determine which books the library owns, where they are and whether they are available.

A library catalog is a systematic listing of the books and materials in a library with descriptive information about each one: author, title, edition, publisher, date, physical appearance, subject matter, special features, and location. While some library catalog records include the tables of contents for books, library catalogs do not include the content of books.

Because library books can only reside in one place on the shelf, physically organizing them provides only one access point. The library catalog greatly increases the number of access points by allowing you to search multiple fields using keywords or authorized headings. A system of cross-references in the catalog helps you identify the authorized subjects and author names.

A Little History

Early library catalogs were created as long lists of library materials and bound in book form. These catalogs were usually arranged alphabetically, with entries for author, subject, and title. Catalogs in book form are difficult to produce and become out of date as soon as the library acquires another book.

A better method was the card catalog, a collection of index cards filed alphabetically. Individual records were stored on index cards, which could be easily added and removed as a library's collection changed. A card was produced for each access point for every book. Because typing and filing cards is labor intensive, libraries often limited the number of subject headings.

Today, most modern libraries have Web-based catalogs and no longer maintain card catalogs. Multiple users can search online catalogs at once, and library staff can enter changes as data about the library's holdings change. In many cases, users can search from home to find out what resources are available.

Structure of the Library Catalog

To effectively search a library catalog, you should understand how databases are organized (review Chapter 8). Library catalogs have files for two kinds of information: bibliographic and holdings.

The bibliographic file contains records that describe every book, video, and CD title (and other materials) that the library owns. Each record is updated only once at the time of addition to the library collection. Records provide descriptive information in fields such as author, title, publisher,
physical description, notes, and subject headings. Keyword searching expands the limited access points of a print or card catalog by allowing you to search all fields in the bibliographic file.

**Sample Bibliographic Record**

<table>
<thead>
<tr>
<th>Title:</th>
<th>The end of privacy: how total surveillance is becoming a reality / Reg Whitaker.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Author:</td>
<td>Whitaker, Reginald, 1943-.</td>
</tr>
<tr>
<td>Subject(s):</td>
<td>Intelligence service. Privacy, Right of. Information society. Information society--Political aspects.</td>
</tr>
<tr>
<td>Primary Material:</td>
<td>Book</td>
</tr>
<tr>
<td>Description:</td>
<td>195 p.; 24 cm.</td>
</tr>
<tr>
<td>Notes:</td>
<td>Includes bibliographical references and index.</td>
</tr>
</tbody>
</table>

The holdings file contains records that track the physical movement, location, and circulation of each single item or copy in the library collection. Fields include library branch, collection location within the branch, call number, barcode, location, and circulation status. Records are frequently updated to reflect a physical transaction with the item/copy.

**Sample Holdings Record**

<table>
<thead>
<tr>
<th>Location:</th>
<th>North Campus Circulating Collection (second floor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call Number:</td>
<td>JF1525 .L6 W49 1999</td>
</tr>
<tr>
<td>Number of Items:</td>
<td>1</td>
</tr>
<tr>
<td>Status:</td>
<td>Available</td>
</tr>
</tbody>
</table>

**Keywords or Subject Headings?**

While the electronic age has made research easier in terms of speed and increased access points, we are also faced with the problem of too much information. When you do a keyword search in the
library catalog, you are casting the widest possible net, and will have much to discard from the thousands of database records.

Subject headings are standardized lists of terms that describe the topics or subjects of library materials and ensure that all materials covering a distinct topic will have the same subject heading. When you conduct a subject heading search in the library catalog, you usually avoid information overload and tend to be more satisfied with your results. To avoid frustration, set aside some time to understand and practice subject headings.

The table below shows the differences between subjects, subject headings, and keywords based on the sample bibliographic record in the previous section. Any word in the searchable fields in the record above might be a keyword, including the subject headings.

<table>
<thead>
<tr>
<th>Subject</th>
<th>What something is about. Subjects are not necessarily subject headings.</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject Heading</td>
<td>Controlled vocabulary, predetermined terms, or standardized language.</td>
<td>Example</td>
</tr>
<tr>
<td></td>
<td>Used in library catalogs and databases to describe the content of books and other information sources.</td>
<td>The subject heading for the book described above might be: Privacy, Right of.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This is the standard term for all books in the library collection on the lack of privacy.</td>
</tr>
<tr>
<td>Keywords</td>
<td>Natural language, or the words used in the text of a document.</td>
<td>Examples</td>
</tr>
<tr>
<td></td>
<td>Includes any words that describe a topic. Keywords are not standardized or predetermined; they may appear in titles, notes, and any other part of a database record.</td>
<td>end of privacy, surveillance, politica, information society, etc.</td>
</tr>
</tbody>
</table>

**Using Library of Congress Subject Headings**

Most academic and public libraries, in the United States and beyond, use the Library of Congress Subject Headings (LCSH). Each record (i.e., book, video, or CD) in the library catalog is assigned at least one subject heading; many include three or more headings.

When searching the library catalog, use the big red LCSH books to determine:

- the official term (bold type) that designates your subject
- unauthorized terms (under UF) that you should not use in subject searches
- broader terms (under BT) that help you expand your search
- narrower terms (under NT) that help you focus your search
- subdivisions (preceded by a dash) that indicate specific aspects of your subject (geographical, topical, format, etc.)
Sample LCSH entry:
Censorship
NT Freedom of the press
--United States
--Religious aspects
--Encyclopedias

- Subject Headings are assigned for the whole book, not for individual chapters within a book. Therefore, you should consider the broader context of a topic as well as narrower aspects. A book about censorship with a chapter on music censorship would not have a subject heading for music censorship.

- Conversely, subject headings are as specific as possible to describe the whole book. A book only about music censorship would not also have a subject heading for censorship.

- Some library catalogs have "Cross References." There are two types: See references refer you from the word you used to the official heading. See Also references refer you to other related headings.

- Try to think of synonyms, more specific headings, or more general headings that might relate to your research need. If you need ideas, or are unsure of the correct subject headings, use the Library of Congress Subject Headings (LCSH).

Searching the Library Catalog

Most libraries maintain Web sites which include a prominent link to their library catalog. At Seattle Central Community College, the library catalog lists all the books and resources owned by all 3 campuses of the Seattle Community Colleges. You can identify titles in this library catalog using the same search methods as you would for other web-based catalogs (by author, title, or subject). Additional options include call number browsing and keyword searching.

Seattle Community Colleges Library Catalog

Browsing by title, author, or subject heading is the most basic library catalog search. Use these options if you know a specific title or author, or if you have some subject headings. Title, author, and subject searches scan lists of headings for the search term you enter. These searches allow you to browse an alphabetical index or list of headings at the point closest to your terms, much as you would if you were browsing a printed index in a book.

Keyword searching is another search option in library catalogs. Keyword searches scan the library catalog records for the words you enter. See Chapter 8 for keyword search strategies.

In general, you don't have to include punctuation marks (commas, apostrophes, dashes, etc.) when searching the library catalog.

Title Search Tips

Enter the title of the book you're looking for. Always omit initial articles such as "a", "an", or "the". Make sure you have the correct title and spelling. You do not need to enter the entire title, but do enter whole words. The following two searches give the same result:
Arguing immigration: the debate over the changing face of America

You can also use the library catalog to determine if the library owns a particular periodical title (for example, National Geographic), but you cannot search for specific periodical articles in the catalog.

**Author Search Tips**

Enter the author's last name first. A comma between last and first name is optional. Organizations, companies, and governments can be authors. Musical artists and actors in audiovisual productions are also listed as authors.

*Hentoff Nat*
*American Civil Liberties Union*
*Nirvana*

**Subject Search Tips**

Enter the Library of Congress Subject Heading. Many subject headings have subdivisions that you can view individually. Notice that the catalog includes "see" and "see also" references to other potentially useful headings.

**Keyword Search Tips**

Use the Keyword search options when you don't know the title, author, or exact subject heading. This search looks for words located anywhere in a catalog record. This type of search can help you identify useful subject headings for more precise results. Create simple searches at first, and add more search criteria as necessary to narrow or broaden the search.

For more efficient searching, determine if there are special symbols to indicate truncation and phrases. For example, a keyword search using quotation marks around the phrase "intellectual property" will yield far fewer and more relevant results than searching without the quotation marks.

**Special Features**

Many library catalogs allow you to establish limits on the search results. For some systems you must set limits before you start searching, while for others, you have the option to limit only after an initial search has been completed. Common search limit options include location, type of material and date of publication. Using too many limits at once may result in very few items found.

Since many library systems have multiple branches, you might find an item that is not owned by your campus or neighborhood library. To save time, you can place a hold, requesting the item be transferred to a convenient branch. Such requests are usually filled in less than a week, and items will be held for you at the circulation desk for a week.

**Abbreviations and Words Used in a Library Catalog**

**author's dates** = numbers such as 1920-1985, following the name of the author on a catalog entry. The first number is the author's date of birth. The second number is the author's date of death. A date followed by a dash, such as 1920- means that at the time the book was cataloged, the author was still living. For accurate and up-to-date information on birth and death dates, use alternate reference material.
More Options for Finding Books

You may encounter different library catalogs at each library system you use; the search screens, icons, and even some terminology may vary. Not to worry—the search principles are the same. Most programs allow title, author, subject, and keyword searching. When in doubt, check the help screen for details on how to search.

Public Libraries

The Seattle area is home to outstanding public library services and collections. A community college library collection can be limited, so you may need to visit public libraries for additional materials. Before visiting a library branch, search the online catalog to make sure that it has the materials you want. With a public library card, you may also place online requests for materials to be delivered to a specified branch.

Seattle Public Library (local libraries within the Seattle city limits)
King County Library System (libraries within King county, but outside Seattle city limits).

Academic Libraries

If you can’t find what you need in our library, chances are a field trip to the University of Washington, one of North America’s premier research libraries, will yield positive results. In addition, many other academic libraries are conveniently located near our campus. Academic library collections are more scholarly, with research collections that relate to campus programs of study. Most academic libraries allow visitors to use their materials on-site; however, only registered students can check out materials.

University of Washington Libraries
**Interlibrary Loan**

When it’s not available locally, take advantage of interlibrary loan service. This cooperative system allows participating member libraries to borrow materials from other libraries. LaserCat is an electronic catalog that searches hundreds of libraries in the Northwest. For example, you can discover which library has a particular book or journal. In 1990, holdings from the major academic research libraries were also added, so you may find an occasional listing for Dartmouth or Stanford as well (sorry, the University of Washington does not participate). Stop by the reference desk to have a librarian assist you with a LaserCat ‘power search’.

**Books In Print**

Many public libraries, larger academic libraries, and most bookstores offer this finding tool in print or electronic format. It lists books that are currently in print and available for purchase. Use Books in Print to find the newest books published, but be aware that it may lead you to books that are not yet available at the library. If you find books you want, you could ask a librarian about obtaining them through Interlibrary Loan.

**Local Bookstores**

Most students find it impractical and/or impossible to buy all the books they need for a research project. However, here are a few starting points for developing a personal library. While you might sometimes find a book review through an online bookseller’s Web site, standard sources such as the New York Times Book Review are your best bet for more consistent quality. See the Yellow Pages in your phonebook for listings of large bookstore chains, as well as independent booksellers. Bookstores are often located in or near major shopping areas.

**Online Bookstores**

- [Abebooks.com](http://www.abebooks.com) - for used, rare, and out-of-print books
- [amazon.com](http://www.amazon.com) – Seattle-based - good source of information about new books - published and reader reviews of books
- [Barnes & Noble](http://www.barnesandnoble.com) - another online bookseller with reviews
- [Booksense.com](http://www.booksense.com) - a gateway Web site for independent booksellers – includes reviews
- [Bookwire](http://www.bookwire.com) – comprehensive online portal into the book industry – includes author interviews
- [Powell's Books](http://www.powells.com) - independent bookstore in Portland, Oregon that sells new and used books online

**Summary**

The in-depth and retrospective information you find in books provides an important balance to the kinds of information you find in other sources.

**Thought Questions**

- Consider the value of books as a source of information on your topic. How does the research culture of the relevant academic disciplines affect your response?
- Discuss the advantages and disadvantages of using electronic books for your research.
Chapter 10: Finding and Using Periodical Literature

Ian Chan

Learning Objectives:

 Understand the role of periodical literature in the research process
 Understand the purpose of each type of periodical
 Learn to identify, locate and evaluate periodical articles

Introduction

Periodicals are materials published regularly, whether daily, weekly, monthly, quarterly, or otherwise. Newspapers, magazines, and journals are all periodicals. Although most periodicals are published in printed form, many of them are also now available online, either on the Web or through online periodical databases. An increasing number of legitimate publications appear only as electronic journals, with no print counterpart. One example is the Online Journalism Review produced at the Annenberg School for Communication at the University of Southern California.

You might regularly read periodicals to keep up with news or personal interests. However, browsing current magazines and newspapers is an inefficient way to identify information on a specific topic. To make the search easier, libraries provide indexes to periodical literature and periodical databases that make it possible to find articles on the topics you need.

This chapter discusses how to find and use periodical literature in a research project.

The Role of Periodicals in Research

Periodicals play a unique role in the research process. They provide:

 Access to a variety of viewpoints

Thousands of periodicals are published each year. They cover all subjects, languages, and perspectives. Although most libraries subscribe to just a small fraction of the many periodicals published, librarians attempt to provide a selection of periodicals that cover a range of different subjects and viewpoints.

Because many different authors contribute articles to any given issue of a periodical, just one issue may have a variety of perspectives. At the same time, a selection of articles from different periodicals and by different authors also offers a range of perspectives that may not be available in a book.

 In-depth analysis, discussion, or research

While books offer excellent background information and in-depth presentation of many subjects, periodicals can often provide valuable information about specific topics, research projects, or events. Authors who might not write whole books may publish articles in their areas of interest or expertise, providing focused information that may not be available in other sources.

 Up-to-date information

The publication cycles for different types of information affect how quickly information is available. The author of a book may spend years gathering and analyzing information, testing theories, and drawing conclusions. An editor then reviews the manuscript at least once, often
suggesting major revisions. The process of printing, binding, and taking a book to market can take a year or more. By the time a book is prepared, printed, purchased by a library, and put on the shelf for circulation, the information might be two or more years old.

On the other hand, reporters often work all night to produce newspaper articles on stories that may only be a few hours old when they go to press. Weekly magazines often report on news only several days old, providing somewhat more in-depth analysis than an initial newspaper article. Academic journal articles take longer to be published—perhaps several months or more.

Although currency is often a very important factor to consider when you select the best information, keep in mind that articles on timely issues and recent events may lack analysis, background information, and a broader perspective. The need for up-to-date information depends on the topic and on your approach to it. For example, while a legal journal will publish the latest information on recent information policy legislation, a book might present a detailed explanation of the history and origins of information policy in the United States. The source you need depends on the type of information you need.

Types of Periodicals

Periodicals are classified by the amount of research and review undertaken in the production of its articles.

Journals, also called academic journals or scholarly journals, provide a means of communication among scholars and other experts. Authors of this type of publication use journals to present new research methods and findings to their peers. Typically, academic writing includes:

- Presentation of research-based information
- Carefully constructed arguments to support a stated hypothesis
- Well documented references or works cited

Journal publishers include learned societies and professional organizations, and many do not accept advertising. Scholarly journals typically have a thorough peer review process that ensures quality. In this process, other experts read and comment on the research in each article before it is published. Journals are commonly published quarterly (winter, spring, summer, and fall) or bi-monthly.

An example of a peer reviewed academic journal is the *Journal of the American Medical Association*.

Magazines are written for general readers or enthusiasts of a particular subject or pastime. Most magazines are published once a month or once a week, more frequently than scholarly journals. Magazines such as *Time* or *Newsweek* appeal to a general audience and offer news and opinion, while others like *Car and Driver* focus on a particular interest or hobby. Because the goal of most magazines is to provide news or entertainment, journalists who write magazine articles do not document their articles to the same degree as scholars writing journal articles. Magazines are good sources of current news and opinion, as well as information on specialized subjects.

Magazines usually feature:

- Shorter articles written for general audiences
- Investigative, in-depth articles that may be carefully researched, but often lack detailed documentation
  - Glossy, colorful advertising

Newspapers provide newsworthy content for general readers. Major newspapers may publish daily or even twice a day, creating a very good record of events as they unfold. However, the frequency of
publication often means that newspaper articles lack the research and documentation commonly found in scholarly journals. Because most newspapers serve a particular region, they can be ideal sources of information for events or topics of local interest, such as salmon fisheries in the Pacific Northwest.

Examples of newspapers include the Seattle Times, International Herald Tribune, and the Washington Post. The New York Times, a well-respected newspaper, serves as the de facto national newspaper and is a good source of information on topics of national and international importance. NewsDirectory.com is an excellent guide to newspapers available online.

To familiarize yourself with the publications in your academic field of interest, visit the reference section of the library and use periodical directories such as Ulrich’s International Periodical Directory and Magazines for Libraries. These directories list periodicals by subject, geographical area, and may include short descriptions for each periodical.

**Publication and Archiving of Periodicals**

As with other types of information, periodicals come in more than one format, some for the purpose of access, and others for the purpose of preservation. Some periodicals are free in one format but not in another.

- **Print Format** Most periodicals are originally published in print format. They can be purchased from a newsstand or borrowed from a bookstore.

- **Microform** Microfilm and microfiche are archival formats that libraries purchase because they are more durable and more compact than paper. These formats reproduce periodicals page by page, exactly as they were printed. Special reader/printer equipment is required to view microform.

- **Electronic format on a publisher's Web page** Increasingly, periodicals publish their print content on Web sites. Some magazines publish online only after a delay to encourage readers to purchase the print version, while others require a subscription to access periodical content. The Web version of a periodical may not contain the exact same content, organization, and advertising as other versions.

- **Electronic format in a database** Many libraries subscribe to databases that include the content of periodical articles. Typical databases, such as ProQuest, include only the articles; advertising is excluded.

For example, each new issue of Time magazine is available both electronically through the World Wide Web and in print from a newsstand or library. To access the most recent issue you can purchase from a newsstand, view on the Time.com Web site, or read a copy at your local library. Older issues of Time magazine are stored electronically either on the publisher's Web site or in a periodical database, or both.

You can also find back issues of many common magazines on the shelves of the library. Older issues may be available only in microform.

The most important things to consider when you select periodicals are its sources of information, authors, and editorial process.

**Finding Articles with Periodical Indexes**

To find information inside a book, you would look at the book's index. A periodical search is different: searching through stacks of individual periodicals for the information you need would be
impractical, and most periodicals don't have a single index to help you find information. To solve this problem, libraries subscribe to indexes to periodical literature that cover many issues of many different periodicals. Indexes can be printed in book form, or they can be electronic databases.

The content of periodical indexes also varies. Some are intended to cover general subjects while others specialize in one field such as science or education. Indexes may include only newspapers, they may cover popular magazines, they may cover journals, or they may represent a combination. Certain indexes provide an abstract, which is a summary of the article. Some periodical indexes are published as books, while others are available online. Some indexes are comprehensive and include every article published in the periodicals they cover, while others include only selected articles. In either case, these indexes are subscriptions the library maintains for its users.

**Print Indexes**

Print indexes provide a list of articles that you can search by topic to find the information you need to locate the actual article: title and author of article, name and date of the periodical, and page numbers. The unit of information that identifies the article is called a citation. Although all periodical indexes share the same function, different indexes work slightly differently. Look for the instructions and a list of abbreviations!

Most print indexes are published annually with monthly or quarterly updates. Therefore, to search for information published over a period of time, you must look at multiple volumes of a print index. An efficient search strategy begins with the volume for the year that is most likely to contain relevant information. Print indexes are important research tools for identifying articles published before about 1990 because few electronic resources cover articles published before that time.

**Online periodical databases**

Increasingly, libraries depend on online indexes to replace the function of print indexes. Often referred to as online periodical databases, these indexes may include all subject areas or they may focus on a particular field, such as medicine or literature. ProQuest Direct is a large database that covers a broad range of topics. Specialized databases include Health Source and Alt-Press Watch. Be sure to use the databases that fit your research needs.

An online periodical index allows you to find individual articles in magazines and journals using a keyword search. Some online periodical include the full text of indexed articles, while others include only citations to articles. (ProQuest provides a combination of citations and full text; some articles listed in ProQuest are not full text.) Whether the full text is available or not depends on contracts between the database provider and individual publishers. SIRS Knowledge Source is a subscription database that includes full text for all the articles it indexes. PubMed and ERIC are both free databases that offer abstracts and citations only.

You can view most full text articles directly on your Web browser, but some articles are in pdf format, a type of file that requires Adobe Acrobat Reader, which you can safely download from www.adobe.com.

As you access a periodical database, consider the breadth of material through which you are searching. Broad searches may yield thousands of hits as the database compares your search terms with every word of each article. Apply the search methods discussed in Chapter 8.
**Locating the full-text of an article**

If the full text of an article is not immediately available in the database you are searching, check the library's periodicals holdings list. This list shows which periodicals are available on the library's shelves. Some libraries offer this list online while others might have it in print.

At Seattle Central Community College Library, the Periodicals Holdings List shows all periodicals available, their locations, and the dates we have. This list is arranged alphabetically, and a separate subject guide helps identify periodicals by broad subject area. Separate lists for the holdings of North and South campuses are included in the same binder.

Your library's online catalog might also list the periodicals available in print. The Seattle Community College library catalog offers a periodical title search on the Basic Search screen. (Tip: Remember to search the library catalog for the name of the periodical—not the name of the article!)

If your local library does not subscribe to the periodical you need, try the online catalogs of other nearby libraries. Most library online catalogs are freely accessible over the Internet. In the Seattle area, consider checking the University of Washington Libraries and the Seattle Public Library.

A reference librarian can also help find other libraries that subscribe to the periodicals you need. At Seattle Central, the librarians use a database called LaserCat, which includes the holdings of all northwest libraries. Librarians can help you obtain articles through Inter-Library Loan, a service that takes a little extra time but can get you the information you need.

**Other types of periodical indexes**

Online indexes will probably meet many of your research needs, but print indexes may be the best source for some research topics. You might need a printed index because you are looking for older information not available online, or you may need to use a specialized index only available in print, such as the Women's Studies Abstracts. Many libraries offer the printed version of the popular and well known Reader's Guide to Periodical Literature, and most libraries have at least one online periodical index.

Compare the two formats of periodical indexes:

<table>
<thead>
<tr>
<th>Print Indexes</th>
<th>Online Databases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples: Reader’s Guide to Periodical Literature; Business Periodicals Index</td>
<td>Examples: ProQuest Direct; Academic Search Premier</td>
</tr>
<tr>
<td>Search by topic or author</td>
<td>Search by keywords, subject, or other database fields</td>
</tr>
<tr>
<td>Search each year in a separate volume</td>
<td>Search multiple years simultaneously</td>
</tr>
<tr>
<td>Available in the library; no special equipment required.</td>
<td>Available online through the Internet; proprietary databases require a password</td>
</tr>
<tr>
<td>Provides citations (and sometimes abstracts)</td>
<td>Provides citations and often abstracts or full text</td>
</tr>
<tr>
<td>Some print indexes cover literature as far back as 1900</td>
<td>Most online databases provide access to literature dating only to the early 1990s. Older may be available in specialized databases.</td>
</tr>
<tr>
<td>The library owns the index. The content</td>
<td>The database provider owns the content.</td>
</tr>
</tbody>
</table>
Step by Step: Researching with Periodicals

Note: Chapter 8 covers online database searching in detail. Use the following steps as a guide to periodical research.

1. Describe in writing the information you need. Clarify the time frame of your topic. The more you understand what you need, the easier it will be to identify relevant articles.

2. Make a list of words and phrases that describe all aspects of the topic. Include all associated organizations, personal names, events, laws and objects. Add to this list as your research progresses. The list will help you approach your research from all angles.

3. Decide which periodical index is appropriate, considering subjects and dates covered as well as the type of material indexed.

4. Do not always expect to find one periodical database or index that is perfect for your needs. If one does not seem adequate, try another. Researchers commonly use more than one.

5. Once you have identified a useful article, record the citation information you will need to find the article. A citation includes:
   - Title of article
   - Author
   - Date and issue
   - Publication name

6. If you located the article by using a periodical database, the following information will also need to be included with your citation:
   - Date you viewed article
   - Database from which you retrieved the article
   - Library or institution providing access to the database
   - URL of the database home page [URLs for the databases provided by Seattle Central Community College]

   Recording the complete citation for each article, as you research, is essential. This practice allows you to return to the articles at a later point in time and helps you prepare your bibliography [Reach Chapter 3 for details on documentation.]

7. If the full text is not available, use the library’s periodical holdings list or the online catalog to find out if the library has the publication and has the date you need. Ask a librarian for help finding periodicals the library doesn’t subscribe to.

8. Make notes about your keywords and search strategies; circle or highlight the ones that are most helpful. Try those terms in other databases and indexes.

9. Save time and frustration! Keep a record of bibliographic information for the articles you think you may use.
**Evaluating Articles**

When you have identified an article that you can use, follow these steps to evaluate it.

1. Skim the article and make note of references to other information sources.
2. Determine the author's purpose and the intended audience.
3. Determine whether the discussion includes documented fact, or persuasive argument and opinion.
4. Determine the author's main point.
5. Consider how the article relates to your information need. Does it answer all or part of your question?
6. If you are convinced that the article will be useful, read it carefully.
7. Determine how the author supports the main point.
8. Look for any indications of bias or faulty reasoning.
9. In your own words, summarize the information that will help support your own research inquiry.
10. Carefully note any other information sources that may help you.
11. List names of people, events, places, terms, or ideas that are associated with your topic. These may help you find other important sources.

**Thought Questions**

- Compare the kind of information that magazines and journals contribute to the research process.
- How does searching a periodical database differ from searching a Web search engine? How do the results compare?
- Name three key factors to consider when evaluating an article for your own research. Explain how each factor relates to your own topic.
Chapter 11: Searching the Web

by Ian Chan

Learning Objectives:

- Understand the Internet as an infrastructure for electronic communications.
- Practice using Web browsers and search engines to discover information pertinent to your topic.
- Practice documenting and evaluating the best sources you find.
- Consider the relationship between the information you find using the Internet and all other information sources available to you.

Introduction to the Internet

Whether you are new to the Internet or you consider yourself an expert, this chapter aims to help you understand the role the Internet can play in your research. First, it is important to understand what the Internet is, and then what it can--and cannot--do for you.

The Internet is not a vast collection of all existing information, but an infrastructure that can give you access to computers where electronic information resides. In the early days of the Internet, access was available only to individuals who worked at institutions—the federal government, military contractors, and research universities—connected directly to the Internet. Today anyone with a phone line and a computer can have access to the Internet through commercial Internet service providers who enable individuals to connect to the Internet from home.

On the Internet, a network of wires, satellites, and other connections transmits data from computer to computer, just as the telephone network transmits sound signals from phone to phone. The Internet is the infrastructure enabling access to the information content.

History of the Internet

The Internet began in the 1960s, but the vast majority of information you can find through the Internet was published after 1994.

Initially developed for the U.S. Defense Department’s Advanced Research Projects Agency (ARPA), the decentralization early Internet infrastructure was designed to protect critical information in times of war by making it possible to store and access files at multiple locations. Defense research groups, often located at universities, transmitted electronic data packets from one site to another over the ARPAnet.

Over time, university researchers in other fields began to use this network to communicate. In 1986 the NSFNET superseded ARPAnet to become the backbone of the Internet. At that time, the number of connected computers accelerated dramatically.

Several important events in 1991 marked the debut of the World Wide Web, which made the Internet more accessible and appealing to a wider audience.

- The NSF lifted its restriction on commercial use of the Internet
- The gopher software was released by a team at the University of Minnesota, making Internet navigation easier.
- Tim Berners-Lee posted the computer code for hypertext Web pages.
In 1993, the National Center for Supercomputing Applications (NCSA) introduced Mosaic, the first graphical Web browser. Web traffic grew by over 300,000 percent per year.

The following year, a few key events marked the beginning of the Internet as we know it: Netscape released its first browser; the Rolling Stone Voodoo Lounge tour was broadcast over the Internet; and Pizza Hut began to take orders over the Web. Millions of users began to look to the World Wide Web as a source of information, communication, and entertainment. The Web offered simple navigation through graphics and linked documents. Suddenly anyone could produce information and make it available to the world—just as this textbook is available.

A plethora of new commercial Web sites appeared in response to the demand for organization and easier navigation. Yahoo and AltaVista were two of the first search tools created for the Web. Today all kinds of business and commercial interests comprise a significant portion of the Internet and its emphasis has shifted from a medium of communication to a medium of commerce.

The content available through this network consists of an enormous range of information, from documents and reports generated by governments, to Web pages created by enthusiasts for almost any topic.

A search for information on censorship and schools using the Google search engine produces links to:

- 1995 University of Delaware course Web site
- Contributions to a discussion board on epinions.com on the topic of “Should Censorship Be Allowed in Schools?”
- Guide to censorship in schools produced by the American Library Association
- Term paper on censorship that can be purchased from academon.com

Libraries, companies, government agencies, and individuals can all place information on the Web; anyone with a computer connected to the Internet can create information and publish on the Web. The filters that govern how information is published in other formats—such as editors for books—may be completely absent on the Internet. Editorial policies and consistent standards may be missing, and Web pages be poorly documented or organized. Because anyone can publish and no single organization controls the content on the Internet, no comprehensive index or catalog of Internet sources exists.

And because the Internet lacks quality control and organization, researchers using the Internet must apply everything they know about identifying the purpose of the author, the intended audience, the scope, and the quality of the information. Unique and important information is published on the Internet; however, careful researchers consider how to:

- Find the information that is most relevant and useful for their need
- Evaluate the quality and authenticity of the information

**Your Access to the Internet**

At Seattle Central Community College, as at many colleges, students have access to the Internet through the open computer labs and the library. Students who pay a technology fee can have campus e-mail accounts, but many instead choose to use their own Internet Service Provider or one of the many free e-mail services now available on the World Wide Web. To use the Internet from home, you need a computer, a modem, a phone line or a cable/DSL connection, and an Internet Service Provider. America Online and MSN are well known service providers. Most providers charge a flat monthly fee.

What is available on the Internet?
The Internet allows you to connect to people—students, scholars, friends and businesses. It gives you access to archives of information, collections of free software, visual images and even audio-visual materials. The Internet offers:

- Individual enthusiasts' Web pages
- Educational institutions and sites
- Business and commercial sites
- Government information and data
- Periodical literature
- Many other types of information

All of this information can be transmitted to you as computer files, which you can read, store, or print with your own computer. These collections are not static; they change and grow constantly. As we saw in Chapter 10, periodicals such as newspapers and magazines, are a quick way to communicate information, but the Internet can be almost instantaneous. As such, it is a work in progress.

Every issue that affects other information sources, including censorship, accessibility, and varying standards of quality, applies to the information you find in the Internet.

Searching the Internet: Finding Useful Information

There are three basic strategies for finding information on the Internet:

Enter a known URL or address
If you know of a useful site, such as the address for a company, a search engine, or someone's homepage, you may enter it directly into your browser's "address" or "location" box.

Type the entire URL (but you can omit "http://")
Do not insert spaces or extra punctuation
Upper/lower case matters; be sure to copy URLs exactly

Browse from wherever you are
This strategy of following links from wherever you began is fine if you're not after anything in particular. Although it may be a way to run into interesting information you were unaware of, it is not an efficient search method when you have a specific research topic in mind.

Use a search tool
Search tools are the primary strategy for finding useful information on the Web. Search tools are to the Web what Periodical Indexes are to periodicals: they are searchable or browsable databases of Web content that can link directly to the Web sites they help you find. See Searching the Web below for details.

Many search tools are maintained by for-profit entities supported by advertising and product promotion. They allow you to search by keyword for documents on the Web that contain those words, and they may also offer other services, such as free email, stock quotes, travel information, and more. No single search engine is likely to help you find answers to all of your questions. Individual search engines differ considerably in how they work and what they include. Sound familiar? The same could be said of reference books! And, as with reference books, you'll best
Understand the tool you're using if you learn a little about how to use it. For search tools, look for "help" or "search tips" for details about how to search.

There are three basic types of search tools on the Web:

- **Search Engines** are human or machine indexed databases that help you find Web sites using keyword searches. There are many to choose from. The table below lists a few examples. Most offer at least a few advanced search techniques to refine your search. Read help pages to learn more about specific indexes. [Search Engine Watch](http://www.searchenginewatch.com) explains how search engines work.

- **Directories** are categorized listings of useful sites compiled by specialists, librarians, or organizations. The challenge of the Web is more often choosing the "good stuff" than finding some information, and these tools often lead to specific sources on a given topic, much as a subject search in a library catalog leads you to books on a specific topic.

- **Meta-Search Engines** search multiple search engines simultaneously. They are good for simple search statements for obscure information, but they don't do well with complex searches because they apply the same search to multiple search tools, which work differently. Meta-Searchers can quickly survey several search engines to help you decide which one to use for more in-depth searching.

For a list of searchable indexes on the Web, visit the Internet Scout Report's [Guide to Searching the Internet](http://www.scout.us/). To use any of these indexes, you should be aware of the basic functions most indexes offer. The Scout Report lists the **basic functions**.

### A Selected List of Search Tools

<table>
<thead>
<tr>
<th>Search Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AlltheWeb</strong></td>
<td>A large search engine that is updated frequently and covers Web pages, pdf, mp3, and other formats. It supports full <a href="http://www.scout.us/">Boolean</a>. searching.</td>
</tr>
<tr>
<td><strong>Alta Vista</strong></td>
<td>Among the first search tool of its type. Offers a useful Web page translation tool.</td>
</tr>
<tr>
<td><strong>Google</strong></td>
<td>Relies upon keyword relevance and link popularity to recommend sites. The largest search engine as of December 2002. Also indexes PDF files and USENET discussion groups. Excellent database of indexed images.</td>
</tr>
<tr>
<td><strong>Infomine</strong></td>
<td>Directory of academic Web sites. Produced and updated by the University of California</td>
</tr>
<tr>
<td><strong>Yahoo</strong></td>
<td>Currently this search tool combines the features of a consumer portal, human-edited Web directory, and the search engine capabilities of Google.</td>
</tr>
</tbody>
</table>

[Search Engine Watch](http://www.searchenginewatch.com) is an excellent source of all information about search engines.
In case you're getting results you didn't really intend to look for: Did you know that Web page authors can add hidden keywords, perhaps unrelated to the page, that would cause the page to be found in a search engine? For example, this page could be loaded with "searchable terms" about dogs so that it would get more visitors interested in puppies, dogs, beagles, etc. Some commercial sites do this regularly hoping for visitors who stumble across their pages.

**Visible and Invisible Web**

Search engines index only Web pages that have fixed or static URLs. Collectively these static Web pages are called the visible Web. A significant amount of useful information on the Web is not included in search engines. This part of the Web is called the invisible Web because a search in a search engine will not find it.

The invisible Web consists of dynamic Web pages that are created within online databases. Database-driven Web pages are assembled at the moment a user clicks on a link in a database. Some of the databases in the invisible Web are subscription based while others are free.

The ProQuest Direct periodical database is an example of a subscription-based source of invisible Web content. The article content, menu bars, and banners that you see in a ProQuest Web page is assembled from a variety of database fields. The URLs in ProQuest are generated in response to a database search query and are unique to each search. As such, search engines cannot index these Web pages and their content.

It has been estimated that the size of the invisible Web is over a trillion pages. In contrast, the visible Web contains 2-3 billion Web pages.

The best way to access invisible Web content is by locating the front door of the database. Governments, research institutes, and educational facilities all offer valuable information through databases. The Invisible Web Directory is a gateway to many valuable databases that are invisible to search engines. Also consider organizations or entities that might produce large sets of information, and remember that articles from magazines and newspapers may be invisible to search engines.

Locating a database does not necessarily ensure that you will be able to access its content; many charge a fee. ProQuest is an example of a fee-based source of information. Libraries play an important role in offering access to online databases like ProQuest. Academic libraries pay yearly licensing fees for each database subscription based on the number of students. The licensing or subscription agreement grants students access to the database contents.

If you browse the Databases and E-Journals Web pages of the University of Washington, you will see a vast number of databases. Keep in mind that an E-Journal is a type of online database. All of those databases are part of the invisible Web. For more information about the invisible Web, read this article "Why some pages are invisible."

**Evaluating Information from the World Wide Web**

The Web presents special challenges for evaluating information. Because anyone can publish information on the Web, Web pages don't necessarily go through the editorial process that most print pages go through.

First, consider the purpose of the site you're evaluating. Is it educational? Commercial? Is the site advocating a particular point of view, or does it appear to provide unbiased information? Ask yourself why the person or organization is providing this information...then evaluate Web sites based on:

**Accuracy**
Is the information correct and accurate? Has it been fact checked? How does it compare with other information you have found on the same topic? Where did the information come from?

**Authority**

Who is the author and what are his or her credentials? Is there a sponsoring organization whose mission is to provide information related to that subject area? Is there a publisher with editorial oversight for the content?

**Currency**

Is there a date indicating the age of the information? Can you tell whether the date indicates when the information was first posted, when it was updated, or when it was first created?

**Objectivity**

Is there evidence of bias? Is the site attempting to sway you on one direction or another? Is there any conflict between the author's or sponsoring organization's mission and accurate information on the subject (for example, a tobacco company might share accurate information about the health effects of smoking)?

**Coverage**

How complete is the information and how in-depth is the treatment of the subject? Is anything important missing?

There are numerous useful guides to evaluating information on the Web. A good listing is at [Web Evaluation Materials](http://www.widener.lib.miam.oh.us/eval/index.htm) from the Widener Memorial Library. The [Virtual Chase](http://www.vchase.com/vchase/) offers a list of links to organizations that help identify bogus and fraudulent sites on the Web.

Take a look at some of the following sites. What questions should you be asking about them? Does any of what you see lead you do doubt the quality or credibility of the site?

- [Feline Research](#)
- [AIDSFACTS](#)
- [HIV/AIDS Information](#)
- [Cloning](#)
- [Secondhand Smoke](#)
- [Whitehouse](#)
- [Stephen King](#)
- [Television Violence](#)
- [Television Watching](#)
- [Mankato](#)

This list was adapted with permission from [Evaluating the Web](#) by Jill Zimmerman at Goucher College.

**Frequently Asked Questions (FAQ)**

**Where is the Internet?**

The Internet isn't located in any single place. Information available through the Internet is located on thousands of computers connected to a global computer network. For example, Chapter 1 of the
textbook you are currently reading is stored on a computer in Seattle Central Community College. When you clicked on a link to it, your browser sent a request to the server (computer) for a document with the URL or address you see displayed by the browser. The server sends a copy of the document to your computer electronically where your browser interprets the text, fonts, links, colors, etc. Similarly, if you link to the Library of Congress, your browser will request information from the server at the Library of Congress, probably located somewhere in Washington, DC. For more information, link to How Web Servers and the Internet Work.

Who runs the Internet?

Although the Internet began as a United States government funded project, today it is a decentralized network of wires and signals. No single person, government, or organization controls the Internet. However, existing laws, such as those related to copyright, free speech, and libel, do apply on the Internet.

Why is it sometimes so slow?

The amount of time it takes to load a document from the Web is affected by a number of variables, so it can be difficult to tell what is slowing down your connection. If you have a newer computer, it is unlikely that your computer is the slowing factor. The connection to the Internet, such as your phone lines, or the fiber optic lines used by many institutions, (including SCCC) is one factor that affects speed. The amount of traffic on the Web, and the size of the document you request also have an effect on speed. For more information on speeding up your Internet experience, read Learn the Net: 10 Tips for Better Browsing.

Can I trust what I find?

Every issue that affects other information sources including censorship, accessibility, and varying standards of quality, applies to the information you find in the Internet. Remember to carefully evaluate what you find on the Internet. Consider the purpose of the work, the author and his or her credentials, the currency (is there a date given? Can you tell what it means?), and the quality of the content. If you're in doubt, the best strategy is to seek information from another source.

How can I organize what I find?

Most browsers, such as Netscape and Internet Explorer, have a function called bookmarks or favorites. On your own computer, this function allows you to save and organize useful links. You can create logical categories of information for future reference. You might have a category for favorite sports sites, school related sites, cooking sites, etc. If you save a bookmark or favorite, you won't have to remember and type long URLs in the future.

Can I publish my own creations on the Web?

Yes! Most students at SCCC (and many other colleges) have space on a server for their own Web pages, and some commercial sites offer free space as well. All you need to do is learn a little HTML coding. HTML is easier than you might think, and you can learn the basics in a very short time. You may also be able to use your word processor to create an HTML file--but beware: word processors don't always create the nicest looking Web pages!

For more information about learning HTML, consult one of the many guidebooks at the library, or go to one of the many Web sites about HTML, such as A Beginner's Guide to HTML, to learn more.

URLs explained
A Uniform Resource Locator is an Internet address, such as

http://dept.sccd.ctc.edu/cclib/Research_Tools/Citation_Style_Guides/mlacite.html

The parts of the address are:

- **protocol type:** http://
- **name of the served to be contacted:** dept.sccd.ctc.edu/
- **directories or folders:** cclib/Research_Tools/Citation Style_Guides/
- **file name:** mlacite.html

URLs may be static or dynamic. Static URLs are intended to be fixed links. Dynamic URLs are generated by Internet-based databases each time a browser requests a piece of information from a Web server.

Thought Questions

- The Internet is a relatively new addition to the research process. How do you think the Internet affects attitudes about and methods of research?
- Consider the Invisible Web. Which providers of information do you think the Internet might provide for your particular topic? What do you think they might have? (Hint: Think about government or public organizations that might generate or provide data related to your topic.)
- Name three key characteristics of a Web page that you might look for in sources you are considering for your own research.
Chapter 12: Information Age Issues
by Jane Shoop

Learning Objectives:

- Discover the core issues surrounding access to information
- Consider these issues as they relate to your ability to find and use information
- Demonstrate how these information issues might affect access to pertinent information on your topic

Introduction

People born, raised, and educated in the United States often believe that they have unlimited access to information as long as they know how to find it. We have a tradition of intellectual freedom based on the belief that people should make their own choices about the information they pursue. In theory, Americans have access to a marketplace of ideas and information. Ideally, we determine whether ideas thrive or die through our decisions about which ones to pursue. In practice, however, a variety of forces affect which information is available to us.

Social, economic, political, or religious barriers may prevent us from obtaining, reading, or viewing the information we require. Such barriers can arise out of government policy or out of the practices of individuals, groups, or intuitions; economic forces can also act as barriers. Today, in our information-based economy, access to information is power.

So, what are some of the issues?

Books and Economics

Mainstream publishers dominate the marketplace for printed information. Their books have broad public exposure through national bestseller lists (such as the New York Times and Publisher’s Weekly) and chain bookstores. Further, editors of indexes, abstracts, and other bibliographic tools decide which publishers to include in their lists, sometimes excluding smaller presses.

Major chain bookstores commonly buy large quantities of popular titles and sell them at reduced prices, making it difficult for smaller bookstores to stock these titles and compete. As a result, independent bookstores are struggling to stay in business. Because these smaller bookstores have traditionally supported independent publishers, independent presses have an increasingly difficult time promoting their books. How will researchers find alternative voices to those expressed in the mainstream press?

Internet and Economics

On the Web, economics also plays a role. Increasingly, the best information on the Web comes at some kind of cost to the user, whether it be a subscription, advertising, or other means.

Many search engines generate income by placing Web sites at the top of search lists in exchange for money, so that corporate, commercially oriented information is more accessible on the Web than nonprofit information. Newspapers and other sites may offer "free" subscriptions, but they commonly require users to register and provide information in exchange for content.

Who Controls the Media?

Public radio and television stations make an effort to present alternative viewpoints, but what about media interests? Through mergers and acquisitions, publishers—especially of local news media—are consolidating into fewer and fewer hands. What is the impact of concentrating the dissemination of
information into too few outlets? To what degree do political beliefs and corporate ownership influence what is published in the media? What views are promoted—or not?

**Government Documents**

The United States Government is one of the largest publishers in the world, publishing technical reports, statistics, legal documents, and more through the Government Printing Office. Recently the trend has been to publish government information in databases on the Internet. However, some of the work of the Government Printing Office is being privatized because to take advantage of the efficiencies of private industry. This trend has the potential to limit citizen access to information created by or for the government (and paid for with citizens’ tax dollars).

What happens when a private publisher decides that publishing information is not profitable because there is only a small market for it? Should a publisher be allowed to charge what the market will bear for information our government originally created? Or, should our government commit to providing free and equal access to government documents?

**The "Digital Divide"**

The digital divide separates those with the education and resources to gather, manipulate, and use information from those who lack the education and resources to access information. When information is increasingly available via electronic means, the issue of access is a civil rights issue. If you cannot afford the computer, software, and Internet connection required for access from home, you must rely on public access through schools and libraries. What concerns about the digital divide should we have as a society? What should we do about it?

**Internet Filters**

Libraries that offer Internet access are being pressured to use Internet filters to restrict access to objectionable Internet sites. In concept, filters protect children from all that is dangerous and objectionable on the Internet. However, since filters typically use keywords instead of human intelligence to determine what to exclude, they can exclude information that is protected by the principle of free speech. As with books above, people often disagree on what is objectionable and what is acceptable. What effect do you think filters might have on your access to information?

**Copyright in the Digital Age**

The United States Copyright law was written to balance the interests of the public with those of the creators of new information. A group of publishers and information professionals established the [Fair Use Guidelines](#) to clarify the law with regards to the needs of information creators with the needs of scholars and researchers.

The Napster debate directly involves the issue of copyright. Because digital information is so easy to duplicate, producers worry that they will not be able to profit from their creations. How can we give creators of information incentive to produce information, while ensuring that information users will be able to access, use, and comment on information? Where do the rights of the author (or musician, as the case may be) stop and the rights of the public begin? Who owns information and for how long?

**Censorship**

Libraries provide information to everyone in a community. In a democracy, citizens need free access to a diversity of ideas so that they may select from among them. The United States Constitution's First Amendment implies the right to freedom of access.

When individuals or organizations discover that their schools or public libraries own books or other materials they consider offensive, they sometimes ask these institutions to remove the offending
materials. Such challenges may be made on the basis of religious, social, ethical, and other views; these challenges are not limited to any particular viewpoint. Those who are passionate about their own ideas may try to abridge this freedom of speech by attempting to challenge library materials they disapprove of or by asking libraries to remove these materials from their shelves. Visit the American Library Association’s Banned Books Week Web site to learn more.

Censors challenge both fiction and non-fiction materials alike. They target non-fiction works they consider out-of-date, false, or dangerous. Books that reflect outdated attitudes, such as books that recommend limited career options for women, have been challenged. As records of changing societal attitudes, should these ideas be removed from library shelves? Who decides what is "good" information?

Who decides what goes on the library shelf?

How do libraries make decisions about what to buy or not buy? Because all libraries have limited budgets, they establish written policies to provide guidance for choosing materials. What influence might individuals or organizations have over how librarians select—or remove—library materials?

Privacy and the “Right to Know”

Traditionally, libraries and bookstores considered reading habits and subject preferences to be private information. The Patriot Act, passed in 2002, expanded the government’s powers to conduct surveillance and obtain records. Although libraries strive to protect library users' rights to privacy and confidentiality, the Patriot act now makes it easier for the government to get patron information from libraries and bookstores. The Code of Ethics of the American Library Association provides a summary of the library's commitment to privacy.

The Bottom Line

The framers of the U.S. Constitution intended to provide equal access to speech, writing, publishing, and information access. But is this ideal realized in modern practice? Almost every day the newspapers publish articles that address one or more of these issues. Anyone serious about doing research should be aware of these issues and how they affect access to information.

Following are documents published by ALA and more information about issues related to your access to information.

Intellectual Freedom

Read: Intellectual Freedom Q & A from the American Library Association.

Intellectual freedom is a key value of the American democracy that makes it possible for us to discuss and consider any issue from a variety of viewpoints. Intellectual freedom is freedom to pursue any idea, wherever it may lead, and however unorthodox or unpopular the idea may be. It is also the freedom to disseminate information related to such an idea however inaccurate or erroneous.

This value is articulated in one of the fundamental laws of the United States:
This freedom balances the concerns and interests of individuals and communities. Therefore, a few kinds of speech are not protected because the need to restrict them outweighs the importance of the freedom to speak:

1. **Fighting words and conflict of interest.** Includes shouting "fire" in a crowded auditorium, inciting violence, compromising national security, or interfering with a fair trial.

2. **Libel.** Includes statements that cause harm to the financial well being of another person.

3. **Obscenity.** The definition of obscenity is based on "community standards", which refers to standards of a community as a whole, not just the standards of an individual. Obscenity is usually applied to pictures rather than to text.

**Intellectual Freedom Documents**

The American Library Association is an advocate of preserving and protecting the free and equal access to information. To further this end, it fights to protect the First Amendment of the United States Constitution.

The American Library Association Council adopted the Library Bill of Rights in 1948. Libraries are committed to make every effort to protect these rights. When there are challenges to titles held in local libraries, the ALA, sometimes along with the American Civil Liberties Union, provides legal and financial support to fight these challenges.
The American Library Association Freedom to Read Statement affirms that it is an individual's right to make individual choices about what to read and what to ignore. It states:

"We trust Americans to recognize propaganda, and to reject it. We do not believe they need the help of censors to assist them in this task. We do not believe they are prepared to sacrifice their heritage of a free press in order to be "protected" against what others think may be bad for them. We believe they still favor free enterprise in ideas and expression."

**Thought Questions**

- Why do you think libraries focus on intellectual freedom as a key value?
- Librarians are often faced with the challenge of defending information they personally disagree with, such as racist or sexist material. How would you defend this kind of information if you were a librarian?
- Can you think of other information policy issues not mentioned in this chapter that might affect access to information on your topic?