Name ______________________________________
Date ____________________________

LSCI 100
LESSON 3 BASIC SEARCH TECHNIQUES FOR
(a) COMPUTERIZED BIBLIOGRAPHIC DATABASES

Learning Objectives

1. To understand the purpose and structure of databases and bibliographic databases.
2. To understand the basic structure of a bibliographic record.
3. To understand and be able to carry out the 4 basic methods of search bibliographic databases.

Instructions

1. Read Lesson three and complete the accompanying exercises.
2. Turn in the completed assignment for grading. (Be sure to log in library’s check-in computer when you spend time in the library working on the course outside of the log sheet in your folder.)
Thus far in the course, you’ve learned basic concepts regarding technology (Lesson 1) and the research process (Lesson 2). This more practical, “hands-on” focus by introducing you to the 4 basic searching and retrieving information from computerized bibliographic databases.

INFORMATION IN ELECTRONIC FORMAT: THE DATABASE

You may recall from Lesson 1 that information can be recorded, presented in print format, audio-visual format, or electronic form electronic format is made available in a form known as a database. A database is an organized collection of information in computerized form. Databases are made available to you for searching—through telephone lines, network connections, and are often formally referred to as “online databases.” Many databases are also available in CD-ROM format, but online database widespread prominence over the past five years. Databases are created by businesses, government agencies, professional groups, and many others.

Databases can be broadly classified into 4 types:

1) **Bibliographic**: highly organized databases that provide bibliographic records. These bibliographic records (sometimes called bibliographic citations) describe books, periodical articles, technical reports, and other sorts of formally published documents.

2) **Directory**: databases that provide factual pieces of information on organizations, companies, products, individuals, or materials.

3) **Numeric**: databases that provide statistics and data in tables.

4) **Multimedia**: databases that combine text, graphics, photos, video, and audio.

Keep in mind that some databases might be a combination of 2 or more of the above types and therefore don’t easily fit into a single category. I will be focusing on bibliographic databases, and to a lesser extent, other databases.

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THE STRUCTURE OF BIBLIOGRAPHIC DATABASES

A bibliographic database is a highly organized, searchable collection of bibliographic records. Several kinds of bibliographic databases, including online catalogs (OPACs), various general and specialized periodical and newspaper indexes, online encyclopedias, and a limited number of specialized databases (Lesson 1 referred to these kinds of databases as access tools). In addition to the bibliographic record, some bibliographic databases provide a summary abstract of the item. Moreover, in recent years, many bibliographic databases have begun to offer the actual, complete full-text of periodical articles.

The bibliographic records (sometimes called citations, references, or simple records) that make up a bibliographic database are descriptions of a book, article, or other document. Every record is composed of categorical descriptive information called fields. These fields serve as access points, allowing you to search the database and retrieve records. Given below is a bibliographic record from an online catalog describing a book written by Henry Mayer. Note that this record is divided into 6 specific fields:

**FIELD**

**AUTHOR** Mayer, Henry, 1941-

**TITLE** All on fire : William Lloyd Garrison and the abolition movement / Henry Mayer.

**EDITION** 1st ed.


2) Abolitionists -- United States -- Biography.  
3) Antislavery movements -- United States -- History -- 19th century.
Another example of a typical bibliographic record is given below. The record is from a periodical index and describes a periodical article by J. Rieder. Note that this record is divided into 9 fields:

**FIELD**

**TITLE:** Some light from the heat: implications of rave parties

**SUBJECT(S):** Rave culture; Medical care; Drugs of abuse; Therapy

**SOURCE:** CMAJ: Canadian Medical Association Journal, 06/27/; Issue 13, p1829, 2p.

**AUTHOR(S):** Rieder, Michael J.

**ABSTRACT:** Reports on the role of physicians in caring for young people in rave parties. Rave parties are nocturnal dance parties at which recreational drugs are used; Kind of drugs that are used and their adverse effects; Implications of rave culture for the physician; Evaluation, stabilization and treatment of patients.

**AN:** 3301678

**ISSN:** 0820-3946

**NOTE:** This title is not held at Skyline Library.

**DATABASE:** Academic Search Elite

By paying careful attention to the information contained in the bibliographic records, you can learn a great deal about a book or article and its relevance before you actually retrieve the item from the shelves or display it on your computer screen.

**FOUR BASIC METHODS OF SEARCHING BIBLIOGRAPHIC DATABASES**

Students new to searching bibliographic databases will often type in a search statement such as the term "stereotypes of women in advertising." They are surprised and frustrated to learn, however, that most of the time the computer will return titles that refer to such topics as "stereotypes of women in advertising" rather than "stereotypes of advertising in women."
respond to a search worded this way with no records or irrelevant many articles and books have been written about stereotypical imag advertising. What went wrong?

When searching bibliographic databases, you must request forth y information according to a protocol and format that the database w In other words, you must use an appropriate search method in order retrieve information. Search methods often vary from database to are 4 basic methods of searching most bibliographic databases:

BASIC SEARCH METHOD #1: AUTHOR SEARCH

When you are looking for a book or article written by a specific, do an author search. For example, your history teacher has told y periodical article written by historian Doris Kearns Goodwin. Do an author search one of Skyline Library’s largest bibliographic databases and see w any computer workstation at tables A or C in the library and follo

[108x1] From the Skyline Library desktop menu, EBSCOhost.com the found inside the box labeled “Magazines and Newspapers.” (EBSCOhost is an online system that offers many databases from a company called EBSC

[108x2] You will first be asked to “choose a service.” Click on “Detials Reference -- Magazines and Newspapers”

[108x3] You will next be shown a list of 10 bibliographic databases. database on the list is called “Academic Search Elite” and it has selected because a checkmark appears in the box to its left. This contains thousands of articles from over 4,000 periodicals.

[108x4] Click on “Academic Search Elite.”

[108x5] You are now brought to the starting point for doing a search. A tool bar immediately above “DATABASES: Academic Search Elite.” called the “sub-tool bar.”

[108x6] You are now at the starting point for doing an advanced search. cursor is flashing inside the first text entry box, to the right To the right of this first box, there is a second box with the down arrow for this box and notice that there are 10 choices.

[108x7] Point to the second choice, AU Author, and
1) How many articles did your author search retrieve? __________
   (HINT: The total number is given in the top left corner of the list screen.)

2) Choose one article by Goodwin and write its title below. (The title is highlighted in blue.)

__________________________________________________________________________

BASIC SEARCH METHOD #2: TITLE SEARCH

When you are looking for a book or article and you know the exact title or even just a few words from the title, you should do a title search. For example, your astronomy instructor has asked you to read a 1996 article entitled "Age of Asteroids".

* Click on Back on the Netscape toolbar to return to the Advanced Search screen.
* Click on Clear (underneath the Search button) to erase your previous work.
* In the box with the words "Click to select", click on the down arrow, point to "TI Article Title", and click once.
* Make the cursor reappear in the first line of the box, type "Age of asteroids". Press <enter> or click on Search.

3) Who is the author of this article? __________________________

4) What is the name of the journal that published this article? __________
   (HINT: On this brief display, the journal name always appears last name(s).]
BASIC SEARCH METHOD #3: SUBJECT SEARCH

When you have a specific subject in mind and you want to find articles on that subject, you can do a subject search. This method is tricky, however, because you must search according to a standardized approved word or group of words that describes your subject. These words are called subject headings. A master list of official subject headings for a particular bibliographic database is known as its controlled vocabulary. Databases often compile their controlled vocabulary list into a searchable thesaurus in relation to a bibliographic database is not the same as the one you may have used when looking up synonyms. It is instead a list of vocabulary terms used by a particular database.

Given below is a full record from EBSCOhost describing an article about Japanese internment camps from a journal entitled Historian. Notice the subject headings listed after “Subject(s).”

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**Title:** Opposition to Internment: Defending *Japanese* American Rights During World War II

**Subject(s):** JAPANESE Americans -- Evacuation & relocation, 1942-1945; WORLD War, 1939-1945 -- Japanese Americans; TOYOHIKO, Kagawa; ROOSEVELT, Franklin D.

**Source:** Historian, Spring99, Vol. 61 Issue 3, p597, 23p, 2bw

**Author(s):** Shaffer, Robert

**Abstract:** Focuses on the defense of *Japanese* American rights during World War II. Opponents of anti-*Japanese* racism in the United States (US); Role of *Japanese* missionaries in opposing internment; Efforts of US Protestants and Reverend Kagawa Toyoiko to uphold human rights; Description of former US President Franklin Roosevelt's Executive Order 9066.

**AN:** 2214910

**ISSN:** 0018-2270

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ESBCOhost assigned 4 official subject headings (separated on the semicolons) to describe the contents of the article:

1) Japanese Americans – Evacuation & relocation, 1942-1945
2) World War, 1939-1945 – Japanese Americans
3) Toyohiko, Kagawa
4) Roosevelt, Franklin D.

Take a close look at the first 2 headings. The words used are probably not the words you would first think of to describe this subject. Headings often use less obvious, formal language in order to avoid ambiguity and maintain consistency and order in the controlled vocabulary. This highly ordered system is what gives subject searching its advantage – if you identify the valid heading(s) used to describe your topic, you can feel reasonably certain that all books or articles that database will be found. In other words, subject searching offers you precise search results, thanks to precise and consistently used subject headings.

Unfortunately, the formal language used in subject headings can sometimes lead to problems when doing subject searching. In our example, if you search using a more obvious choice of words for this topic, such as “Japanese internment camps”, your search would have yielded no records. It would have thought of the official, valid heading “Japanese Americans – Evacuation & relocation, 1942-1945.” This, therefore, is the disadvantage of subject searching. If the word(s) you type as the subject don’t match the official heading(s), you get zero results.

In spite of its drawbacks, subject searching usually gives you the results you want, so you should use it whenever practical. For example, let’s say you’re doing a term paper on recent research in parapsychology.

* Click on Back on the Netscape toolbar to return to the Advanced Search page.

* Click on Clear (underneath the Search button) to erase your previous work.

* In the box with the words “All Fields”, click on the down arrow, point to SU Subject, and click once.

* Make the cursor reappear in the first text entry box and type: parapsychology research Press Enter or click on Search.

5) How many articles did your subject search retrieve? _______
6) Choose one article from your results list, display the full record by clicking on the article title, and provide the following information:

What is the title of the article you’ve chosen?
________________________________________________________________________

What is the name of the periodical that published this article? (HINT: Periodical titles are given in the “Source” field on the
________________________________________________________________________

How many subject headings are attached to your article? _____ (HINT: They are separated with semicolons.)
Write all the subject headings for your article below:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

BASIC SEARCH METHOD #4: KEYWORD SEARCH

Keyword searching (sometimes called “free-text searching”) is the more “messy” approach to searching. This method of searching does not use standardized subject headings. Instead, you think of your own “key words” to describe your topic. What’s more, the computer will look for your words in any field they might appear in a record -- author, title, source, the full-text of the article(s) if available. This is very different from the searches which only search the subject field.

Keyword searching can be done using only one word or phrase, such as multiculturalism, child abuse, global warming. But keyword searching also allows you to combine search terms by using connecting words called logical operators. A commonly used logical operator is the word AND. It
connect two ideas related to your research topic into one search statement:

women AND homeless
smoking AND health
california AND immigration

For each of these search statements, the computer would only retrieve records that contained both keywords, no matter which field or fields these keywords were located in. For example, given below is a record found on EBSCOhost for the search statement "smoking AND health":

Title: Smoking and women's health: opportunities to reduce the burden of smoking during pregnancy.

Subject(s): PREGNANT women -- Tobacco use -- Health aspects; PREGNANCY -- Health aspects; MEDICAL personnel & patient; ANTISMOKING movement; SMOKING -- Health aspects


Author(s): Etbrahimi, Shahla IL; Merritt, Robert K.; Floyd, R. Louise

Abstract: Comments on the role of health care providers in helping pregnant women to stop smoking. Use of pregnancy-specific self-help materials that increased the rates of cessation among pregnant smokers; Web site which provides information on the subject; Reference to a study done by Kirkland and colleagues published in this issue 'Canadian Medical Association Journal.'

AN: 3420372

The computer pulled up this article because both keywords appear somewhere in the record. In fact, notice that both keywords appear several times – and abstract fields. To find your keywords easily, EBSCOhost highlights bold print when they appear in the title, abstract, or full-text fields.
Keyword searching offers the following advantages:

1) you don’t need to know or second-guess the precise subject heading in the database;
2) it allows you to combine search terms, thus creating a more precise search result;
3) it allows you to combine terms from different parts of a bibliographic citation, such as an author’s name and a word from the title of a book or article. For example, if you knew that an author named Engel had written a book with the word gender somewhere in the title, you could enter the keyword search “Engel AND gender.”

Even with these advantages, keyword searches are not necessarily better than searching by exact subject headings. In fact, keyword searching has a significant drawback – the high likelihood of retrieving false hits (a.k.a. false drops), i.e. irrelevant records. This happens because the computer will retrieve records that contain your terms regardless of the context, meaning, or use of the terms in the article. For example, a keyword search for the term “apple” will retrieve articles about the fruit, Apple computers, Apple Records Inc., and people named Apple. To understand exactly how the computer could retrieve a completely irrelevant record, examine closely the record given below. This is a false hit that occurred in an earlier search on “smoking” AND health.

Title: Health: Destructive Effects of Frying.
Subject(s): FRYING -- Health aspects; CANCER -- Nutritional aspects
Source: Total Health, Jul/Aug '99, Vol. 21 Issue 3, p26, 3p, 1c
Author(s): Keuneke, Robin
Abstract: Discusses the health hazards of frying. Biochemical changes in food when heated; Correlation between exposure to smoking oil and fats and the formation of cancer; Why frying and deep frying present a profound danger to health. INSETS: Truly Light Cooking: Prepare Foods Without Heating Oil.
AN: 2157495
ISSN: 0274-6743
Note: This title is not held locally
Database: Academic Search Elite
This article is about the health dangers associated with deep fryers, nothing to do with cigarette smoking. Nevertheless, notice that both terms appear in several fields of the record, which explains why it was retrieved. The problem, of course, is that the term “smoking” may appear in different context, i.e., “smoking oil” instead of cigarette smoking, which can lead to false hits when doing keyword searching.

Try a keyword search on the following topic. Assume you’re doing research for a term paper discussing the psychology of clothes. You’re interested in learning how people wear certain types of clothes, and what, if anything, clothes might mean to the individual.

* Click on Back until you return to the Advanced Search screen.
* Click on Clear (underneath the Search button) to erase your previous work.
* Leave the setting “All Fields”. This is the correct choice on the Advanced Search screen.
* Make the cursor reappear in the first text entry box and type: clothes and psychology. Press <enter> or click on Search.

7) How many articles did your keyword search retrieve? ________

8) Choose one article from your results list that’s relevant to the topic and display the full record. Provide the following information:

What is the title of the article you’ve chosen?
_______________________________________________________________

What is the name of the periodical that published this article?
_______________________________________________________________

Name every field in which your search terms appear on this record. (HINT: The names of each field are given on the left side of the screen. Remember to also check the subject field for your terms. The computer will search for your terms in that field, but it won’t highlight the finds them. Your terms may appear in as few as 1 and as many as 4 fields.)

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SUMMARY

This lesson discussed the four basic methods of searching bibliographic databases, however, that no single method is inherently superior to any other. Choose a method based on your needs. Remember, you can change or adjust your search method and/or search terms as you work with bibliographic databases. It is important to be flexible and creative when searching.

LESSON 3: KEY POINTS TO REMEMBER

* A database is an organized collection of information in computerized form that can be broadly classified into 4 types: bibliographic, directory, numeric, or full text. This course will focus on bibliographic databases.

* A bibliographic database is a highly organized collection of bibliographic descriptions of a book, article, or other document. Every record is composed of categories of information called fields. These fields serve as access points under which you can search the database and retrieve records.

* There are 4 basic methods of searching most bibliographic databases:

  - AUTHOR SEARCH: when you are looking for a book or article written by a specific author

  - TITLE SEARCH: when you are looking for a book or article and you know even just a few words from the title

  - SUBJECT SEARCH: when you have a specific subject in mind and you want to find books and/or articles on that subject. This method of searching can be tricky, as you must search according to a standardized, officially approved word or group of words that describe your subject. These standardized words are called subject headings. Even though subject searching usually gives you the most precise results, it can have drawbacks. Subject searching usually gives you the most precise results, whenever practical.

  - KEYWORD SEARCH: when you think of your own “keywords” to describe your topic. The computer will look for your search term(s) in any field they might appear in a record. Keyword searching also allows you to combine search terms by using connecting words called logical operators. A commonly used logical operator is the word AND, to connect two ideas related to your topic into one statement, such as smoking AND health.

* Keyword searching has certain advantages and a major drawback – the high rate of retrieving false hits. This happens because the computer will retrieve records containing your terms regardless of the context, meaning, or use of those terms with other terms. Be prepared to find false hits when doing keyword searching.

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LESSON 3 -- REVIEW THE CONCEPTS

9) A database is an organized collection of information in computerized: 4 types of databases?

_________________________  ___________________________
_________________________  ___________________________

10) A bibliographic database is a collection of bibliographic records. What is a bibliographic record?

_____________________________________________________________________

11) Bibliographic records are composed of categories of descriptive information.

_________________________

12) Your sociology professor has advised you to read a certain journal article relevant to the term paper topic you’re researching. However, she doesn’t provide the author of the article, only a few words from the title. To find this article, what search should you do on a bibliographic database?

_____________________________________________________________________

13) When doing a subject search, you must search according to a standard approved word or group of words called ________________________.

14) When you do a keyword search, the computer will look for your search field(s) of the record?

___ author
___ title
___ source
___ subject
___ abstract
___ full-text of the article (if available)
___ all of the above

15) What is a false hit? ________________________________

PLEASE NOTE: BEFORE STARTING LESSON #4, PLEASE ARRANGE TO MEET WITH INSTRUCTOR FOR A SHORT MEETING TO DISCUSS YOUR RESEARCH TOPIC.
William Lloyd Garrison, 1805-1879, was a prominent abolitionist who advocated immediate emancipation of slaves. He founded the anti-slavery paper The Liberator in 1831 and served as its editor until the publication ended in 1865. In 1833, he co-founded the American Anti-Slavery Society. Garrison fell into the radical wing of the abolition movement and was both a supporter of women playing a prominent role in the movement and a critic of the U.S. Constitution, which he believed supported the institution of slavery. All on Fire: William Lloyd Garrison and the Abolition of Slavery. New York: St. Martin's Press, 1998. Stewart, James Brewer. ed. William Lloyd Garrison at Two Hundred: History, Legacy, and Memory. New Haven: Yale University Press, 2008. Mr. Mayer read passages from and talked about his book, All On Fire: William Lloyd Garrison and the Abolition of Slavery, published by St. Martins Press. The book examines the life and work of Garrison, claiming that he not only profoundly influenced the abolition movement, but also the feminist movement. After his remarks he answered questions from the audience. Book Overview. In All on Fire, William Lloyd Garrison (1805-1879) emerges as an American hero, arguably on par with Abraham Lincoln, who forced the nation to confront the explosive issue of slavery. Mayer maintains that Garrison, a self-made man of scanty formal education who founded and edited the abolitionist newspaper The Liberator, not only served as the catalyst for the abolition of slavery, but inspired two generations of activists in civil rights and the