Module 4
Introduction

Although the Internet was created to freely distribute information to academic and government users, it may not be the type of information you need or your professor requires for your research project. There will be many times when you will need to use an online catalog or library databases (available in libraries and from library websites) to locate digital information in books, eBooks, journals, newspapers, government documents, or other types of sources. Library databases provide convenient access to electronic versions of published articles, books and videos.

Libraries pay a fee to subscribe to databases because the materials collected within them are copyrighted and owned either by an author or publisher. Under copyright law, you may use this information for research as long as you document where it came from. Access is provided to registered students, faculty, or members of the library. Some databases may be available only from computers located within libraries; others may be available remotely to registered students, faculty, or other library members from any computer with Internet access. If you are connecting to a database that provides remote access from a computer outside the library, you will be prompted to enter a username and password or a library card number.

Library Databases

Library databases are important research sources. Understanding how they function will provide you with higher quality material and make you a better researcher. The information in library databases is research-focused and includes articles (magazine, newspaper, and academic journal), eBooks, and digital videos. Individual library databases focus on different information and will contain different types of content. Some databases are "general" and cover a wide array of disciplines and topics. Other databases are specific and only include information for a certain subject area, like medicine or literature.

As an IRSC student, you have access to the LINCCWeb subscription databases through Florida Virtual Campus, as well as databases for which IRSC has purchased subscriptions independently. The majority of the resources available through these databases are behind a pay wall and not searched by search engines.
To access these library databases, direct your browser to http://www.irsc.edu, click “Libraries” at the bottom left of the page. Next, select “Find eResources (Articles)”. Click on Databases by Subject. At this point you must login with your Borrower ID and PIN. Your Borrower ID is your Student ID. Your PIN is your 4-digit birthdate (MMDD).

Database Search Strategies

This module will discuss a number of the basic features of library databases that are important to understand in order to retrieve relevant information, including:

1. Access and Coverage Issues
2. Subject and Keyword Searches
3. Advanced and Field Searches
4. Search Strategies
5. Truncation and Wildcards
6. Display and Retrieval of Results

Access and Coverage Issues

- Most databases are available via the Internet. Because libraries purchase access to databases on behalf of students and faculty; they require users to enter usernames and passwords to obtain access.
- All subject areas are represented by these databases. Most disciplines have one or more databases specifically dedicated to that discipline. Other databases are more interdisciplinary in nature and provide coverage of all subject areas. It is important to match your information need with the coverage of the database.
- Coverage dates of databases vary. Some provide information going back fifteen to twenty years; others include only the most recent year of information; others may contain information from over one hundred years ago. Matching your information need with the time coverage of the database is very important.
Databases contain different types of information. The following are typical of the type of information which can be found:

- full-text periodical articles
- full-text encyclopedic/reference sources
- full-text books or chapters of books
- government/primary documents
- citations and/or abstracts of articles or books
- images, audio clips or video clips
- statistical information
- popular information or scholarly information

The update frequency of databases varies. Newspaper databases will typically be updated on a daily basis while an encyclopedia database may be updated on an irregular or even yearly basis. The more current your information need, the more important it is to use a database with a frequent update schedule.

When you want to find the coverage dates or subject area of a particular database, click on the blue "i" icon next to the database name. You can also click on the database title and then access that database's help file.

**Subject & Keyword Searches**

Most databases permit both subject and keyword searching. It is important to be aware of the differences between the two types of searches in order to search more effectively.

- Subject headings, descriptors, or "controlled vocabulary" are synonyms which refer to a standard set of terms that describe the content of a record. A subject search allows you to retrieved all records in a database on a particular topic by using a single search term. It is important to know the exact term assigned to your topic in order to retrieve relevant results. Most databases contain "thesaurus" or an online list of subject headings to help you select the correct search term.

- Keyword searches provide a great deal of flexibility. In most databases, if you search by a keyword, every field (author, title, subject, abstract, text, etc.) of a record will be searched for that word or words.
Keyword Searching or Subject Heading Searching: Which Should You Use?

<table>
<thead>
<tr>
<th>Keyword Searching:</th>
<th>Subject Heading Searching:</th>
</tr>
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<tbody>
<tr>
<td>is effective when done early in the research process.</td>
<td>will often provide more exact information than keyword searches; this type of search avoids the “garbage” that is sometimes retrieved with keyword searches.</td>
</tr>
<tr>
<td>can be used to help identify subject headings.</td>
<td>can be used across databases. A correct subject heading in one database will often be the same in another.</td>
</tr>
<tr>
<td>is effective when looking for very specific information.</td>
<td>will often include sub-headings and cross-references to allow you to focus on specific areas of your topic.</td>
</tr>
<tr>
<td>is useful for finding jargon, slang expressions, or cutting-edge topics.</td>
<td>will retrieve all the information on a subject or topic grouped together in one place.</td>
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Both! A good search strategy is to begin with a keyword search. When you find a source that appears to be right on the mark, consider doing another search using the subject heading(s) assigned to that source. That way you’ll be taking advantage of the positive aspects of both types of searches.

Advanced & Field Searches

- Most databases provide both a simple and an advanced search feature. The advanced search will usually contain pull-down menus that allow you to specify fields to be searched. The fields are typically the subject heading, author, date, journal title, and article title. Depending on the database and the discipline it indexes, additional searchable fields may be available.
- Most databases also have "special features" which are unique to the database. These may range from an ability to search for illustrations, cover stories, or peer-reviewed (scholarly) articles to searching for any individual by nationality or ethnicity. These features can be used to narrow a broad topic or to help you find very specific pieces of information.

Search Strategies

- Databases support Boolean operators (AND, OR, NOT) in order to provide narrow, well-defined search results. It is important to know what the default operator is if you do not specify one in a search statement. In most databases, either the Boolean AND Operator or a phrase search will be the default search if two or more words are entered. In some databases though, the Boolean OR operator is the default: this search would be quite different from a Boolean AND search.

Example: teenagers AND diet

This search would return only those results that include both the keyword teenagers
and the keyword **diet** in the same resource. The **AND** operator narrows the search results.

**Example: teenagers OR adolescents**

This search would return those results with *either* the keyword **teenagers** or the keyword **adolescents** in a resource. Since a source could have one of these terms or both, you will have a larger result. The **OR** operator broadens the search results.

* Most databases support the nesting of search terms within parentheses ( ) in search statements containing both the Boolean AND and OR Operators. This allows for putting synonymous terms in sets and allows you to preserve the logic of the search statement. Items in ( ) are found first.

**Example: teenagers AND (diet OR nutrition)**

This statement tells the search engine to first find either the keyword **diet** or the keyword **nutrition** in a resource, then, within that subset, only the resources that also include the keyword **teenagers**.

* Most databases designate a phrase by enclosing the words within quotation marks.

**Example: “road rage”**

This statement tells the search engine to find only that phrase - **road rage** - exactly as it appears in a resource. This search would not return results with a phrase like **road raging** or results with the two words separated from one another.

**Truncation & Wildcards**

* Truncation and wildcards are additional methods to expand a search. The truncation symbol may vary, but typically the * or the ? is used to retrieve endings of root words.

**Example: teen***

This search would retrieve teen, teenaged, teenager, teenagers, and teens.

* Wildcards are used to replace letters within a word.

**Example: wom?n**

This search would retrieve woman or women.

* Remember to check each database's help file to determine these differences.

**Display and Retrieval of Results**

* Databases retrieve and display results in a variety of ways. The two most frequent ranking of results are chronologically by date, with the most recent records added to the database listed first (LIFO or Last In First Out), and by relevancy. In the relevancy-ranked search a statistical count is done on the
number of times your search terms appear in a record, how close those search terms are to each other, and how prominent the search terms are in the record. A record with a search term in the title of the record will be considered more relevant than one in which the search term appears in the body of the text.

- Many databases provide abstracts or summaries of records as well as the full-text of the record. Take advantage of abstracts; by reading an abstract prior to reading the complete article, you will not only get an overview of the article but in some cases, you will realize that the article is not one which you need to read.
- Most databases have retrieval capabilities integrated into the database. You will frequently see Print, Email, and Save buttons. Even if you regularly print or email records, it is a good idea to a backup of your research on a storage device.

Some important pieces of the record for an academic journal article are shown in the image above.

Using a Database - Academic Search Complete

Academic Search Complete is a database of scholarly and popular periodicals from several academic areas of study, including: general academic, general science, business, social sciences, humanities, and education. The features of the database include:

- full-text coverage for over 8,500 periodicals, some dating back as early as 1887
- abstracts and indexing for over 12,500 journals
- an extensive collection of peer-reviewed full-text journals
- lists of publication titles and subject terms
- illustrations, charts, and graphs for many articles
PDF or full-page image format, for many articles

Why Should You Use Academic Search Complete?

*Academic Search Complete* is an interdisciplinary database; it provides coverage in many different subject areas. It is an excellent place to begin any research project, though for some assignments you may not need to go further.

How Do You Access Academic Search Complete?

Follow the steps listed above to login in to IRSC Libraries’ databases listed by subject. *Academic Search Complete* is listed under the *General* subject heading. Expand the *General* subject heading to find *Academic Search Complete* and click on it. *Academic Search Complete* will open in a new tab to the advanced search screen, which is the IRSC default.

The following graphic shows the advanced search screen of *Academic Search Complete*:

Sample Search

This is an example search for the topic: the issue of climate change as it impacts the polar regions, but excluding information about polar bears.
A typical search in *Academic Search Complete* would be like this keyword search which uses phrase searching (the default two-word search in this database) and the Boolean operators AND and NOT. Notice the use of double quotation marks in the first field to search for an exact phrase. The Boolean operators AND and OR are used to include “polar” but exclude articles about polar bears. This search also limits the results to full text and scholarly (peer reviewed) journals. This database looks for the search terms in the title, author, abstract, and source field when the Default Fields are used.

Over 800 articles were retrieved in the search. You can narrow your search further by date. Full citation information is provided for each article so it is easier to create your bibliography. Explore related articles by searching using terms from the subject headings list. To open an article, click on either the title link or the PDF link.
The following image shows a sample results screen:

The abstracts will help you identify which articles will be most relevant; they may also provide you with alternative keywords for your topic or may help you narrow down a broad topic. Notice the subject terms and citation (source) information is listed.
PDF vs. HTML format
Articles in HTML are not scanned and are text heavy. Occasionally images are embedded. HTML articles do not have page numbers. Within the full text of the article, the search terms you used will be highlighted.

Articles available in PDF format display or print like the actual print publication or a scanned version of the article. This format allows users to refer to page numbers as the article was originally published. PDFs can be saved to your personal computer or a flash drive to be referred to later.

While viewing the full text of an article, you can go back to the list of records by clicking on "Result List."

*Academic Search Complete* includes a variety of tools to help you keep track of your research. You can create a free account to use the Add to folder tool to save articles in folders within the database to stay organized and retrieve later. The tools can be accessed in the right-hand menu of an item record. Options include:
- Add to folder (save the item record to a personal folder in EBSCO)
- Print
- E-mail
- Save (generate an HTML page of the record to save to your computer)
- Cite (generate a citation for the item, including AMA, APA, Chicago/Turabian, Harvard, MLA, and Vancouver/ICMJE styles)
- Export (save the bibliographic information in a digital format to use in a citation manager, such as a RefWorks or EndNote file)
- Create Note (generate and save notes about the record)
- Permalink (generate a stable URL back to the record)

**Helpful Hint:** When you find an article you plan to use for your assignment, save it right away. It is very difficult to remember where and how you found an article later so use one of the tools or download the PDF and save it to your personal computer, flash drive, or cloud storage to save it before you navigate away from the article’s record.