Database Search Techniques

The following list provides a guideline for you to follow in formulating search requests, viewing search results, and modifying search results. These procedures can be followed for virtually any search request, from the simplest to the most complicated. For some search requests, you may not want or need to go through a formal search strategy. If you want to save time in the long run, however, it's a good idea to follow a strategy, especially when you're new to a particular database.

A basic search strategy can help you get use to each database’s features and how they are expressed in the search query. Following the 10 steps will also ensure good results if your search is multifaceted and you want to get the most relevant results.

1. **Identify the important concepts of your search.**
   
   Example: The Role of Women in the Civil Rights Movement

2. **Choose the keywords that describe these concepts.**

   Example: The Role of **Women** in the **Civil Rights Movement**

   - Main concept
   - Main concept

3. **Determine whether there are synonyms, related terms, or other variations of the keywords that should be included.**

4. **Determine which search features may apply, including truncation, proximity operators, Boolean operators, and so forth.**

5. **Choose a database.**


7. **Create a search expression.**

8. **Evaluate the results. How many hits were returned? Were the results relevant to your query?**

9. **Modify your search if needed. Go back to steps 2-4 and revise your query accordingly.**

10. **Try the same search in a different database, following steps 5-9 above.**

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COMMON SEARCH FEATURES OF SEARCH TOOLS

Boolean Operators

Boolean Searching, also called key word searching refers to how multiple terms are combined in a search. This type of search tells the database to retrieve all the records in the database which contains a word or a set of words. You can alter the results by using Boolean Operators which are the words AND, OR, and NOT.

- **AND** indicates that only those keywords that have both words in them will be retrieved
- **OR** will result in key words that have either term
- **NOT** is used when a key word needs to be excluded
- When ands and ors are used in one search statement, you must put parentheses around the items that are to be performed separately, for example, (apples or oranges) and tangerines. This is called nested Boolean logic.

**Boolean Operator AND**

child AND abuse

**Boolean Operator OR**

college OR university

**Boolean Operator NOT**

stress NOT anxiety

Phrase Searching

- A string of words that must appear next to each other, for example, "global warming."

Truncation

- Retrieval of a root word and its different endings, for example, postmodern* would retrieve postmodernist, postmodernism, and so forth.
PROXIMITY SEARCHING

- Proximity operators are words such as *near* or *within*. By placing the word NEAR between the two segments of the search expression, you would achieve more relevant results than if the words appeared in the same document but were perhaps pages apart.

FIELD SEARCHING

- The capability limiting search results to parts of a Web page, for example, URLs, headings, summaries, and so forth.

CASE SENSITIVITY

- Some databases recognize capitalization in words and some don't. This can be very important when looking for proper names.

LIMITING BY DATE

- Databases allow you to search information entered between certain dates.

Search Tips

After determining whether your search has yielded too few results (low recall), there are several things to consider:

- Perhaps the search expression was too specific; go back and remove some terms that are connected by ANDs.
- Perhaps there are more possible terms to use. Think of more synonyms to OR together. Try truncating more words if possible.
- Check spelling and syntax (a forgotten quotation mark or a missing parentheses)
- Read the instructions on the help pages again.

If your search has given you too many results with many not on the point of your topic (high recall, low precision), consider the following:

- Narrow your search to specific fields, if possible.
- Use more specific terms; i.e., instead of sorting, use a specific type of sorting algorithm.

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• Add additional terms with AND or NOT.
• Remove some synonyms if possible.