Database Search Tips

Overview

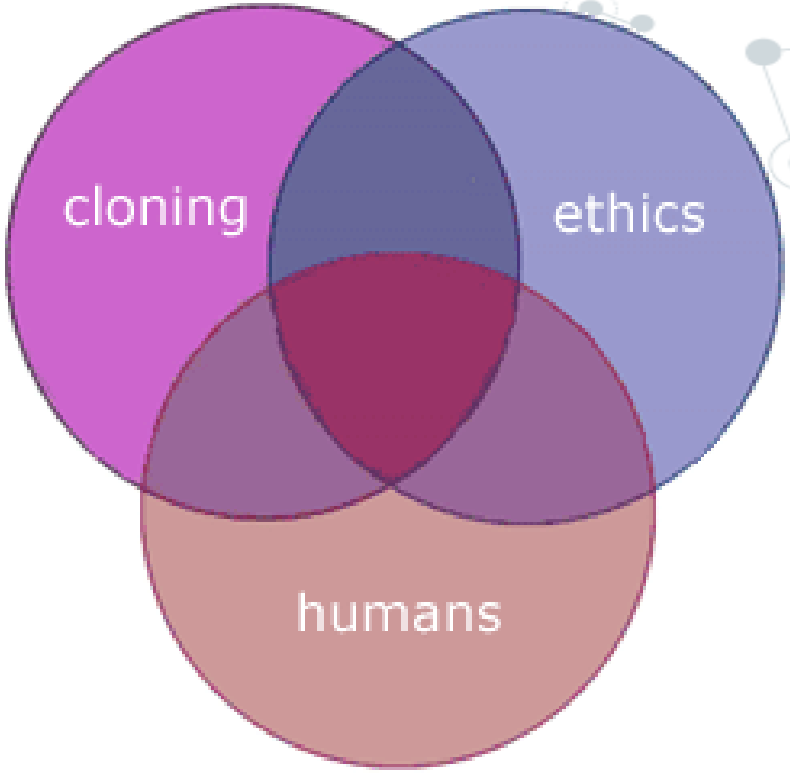
- The key to being a savvy online researcher is to use common search techniques that you can apply to almost any database, including article databases, online catalogs, and even commercial search engines.
- This is important because searching library databases is a bit different from searching Google
- The techniques described here will enable you to quickly retrieve relevant information from the thousands of records in a database.

Boolean Operators: What to Look For

- Boolean operators form the basis of mathematical sets and database logic
  - They connect your search words together to either narrow or broaden your set of results
  - The three basic operators are AND, OR, and NOT
- Why use Boolean operators?
  - To focus a search, particularly when your topic contains multiple search terms
  - To connect various pieces of information to find exactly what you're looking for
    - EXAMPLE: second creation (title) AND wilmut and campbell (author) AND 2000 (year)

Using AND

- Use AND in a search to
  - Narrow your results
  - Tell the database that ALL search terms must be present in the resulting records
  - Example: cloning AND humans AND ethics
- The purple triangle in the middle of the Venn diagram below represents the result set for this search. It is a small set using AND, the combination of all three search words

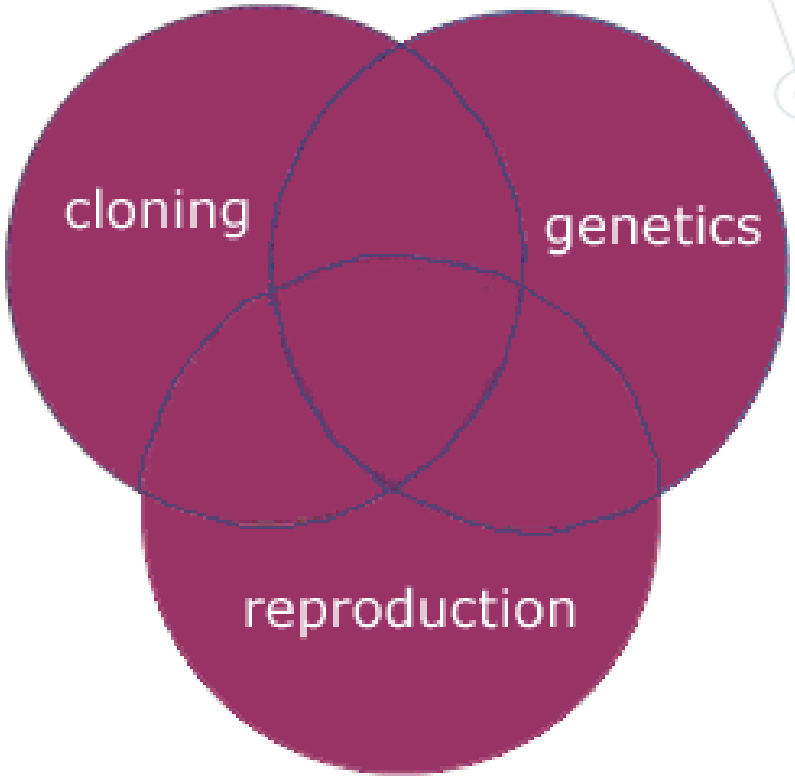


Using AND cont'd

- Be aware that in many, but not all databases, the AND is implied
  - Google automatically puts AND between your search terms
  - Though all your search terms are included in the results, they may not be connected together in the way you want
  - For example: "college students test anxiety" is translated to "college AND students AND test AND anxiety. The words may appear individually throughout the resulting records
  - You can search using phrases to make your results more specific.
  - For example: "college students" AND "test anxiety". This way, the phrases show up in the results as you expect them to be.

Using OR

- Use OR in a search to
  - Connect two or more similar concepts (synonyms)
  - Broaden your results, telling the database that ANY of your search terms can be present in the resulting records
  - Example: cloning OR genetics OR reproduction
- All 3 circles represent the result set for this search. It is a big set because any of those words are valid using the OR operator.



Using NOT

- Use NOT in a search to
  - Exclude words from your search
  - Narrow your search, telling the database to ignore concepts that may be implied by your search terms
  - Example: cloning NOT sheep

Search Order

- Databases follow commands you type in and return results based on those commands. Be aware of the logical order in which words are connected when using Boolean operators:
  - Databases usually recognize AND as the primary operator and will connect concepts with AND together first
  - If you use a combination of AND and OR operators in a search, enclose the words to be “ORed” together in parentheses
- Examples:
  - ethics AND (cloning OR reproductive techniques)
  - (ethic* OR moral*) AND (bioengineering OR cloning)

Truncation: What to Look For

- Root words that have multiple endings
  - Example: sun = suns, sunshine, sunny, sunlight
- Words that are spelled differently, but mean the same thing
  - Example: color, colour
- Truncation/wildcard symbols vary by database.
  - EBSCO and ProQuest both use *
  - Google automatically truncates

About Truncation and Wildcards

- Truncation, also called stemming, is a technique that broadens your search to include various word endings and spellings
  - To use truncation, enter the root of a word and put the truncation symbol at the end
  - The database will return results that include any ending of that root word
  - Examples: child* = child, child's, children, childhood
  - ProQuest and EBSCO use *

About Truncation and Wildcards cont'd

- Wildcards are similar to truncation in that they substitute a symbol for one letter of a word
  - This is useful if a word is spelled in different ways, but still has the same meaning
  - Example: wom!n = woman, women
    colo?r = color, colour
  - ProQuest and EBSCO use ? as the wildcard symbol

Keywords vs Subjects: What to Look For

- To find subject headings for your topic:
  - Look to see if the database has an online thesaurus to browse for subjects that match your topic (Help screen)
- Another way to find subject headings:
  - Start with a keyword search using words/phrases that describe your topic
  - Browse the results and choose 2 or 3 that are relevant
  - Look at the subject or descriptor field and note the terms used (write them down)
  - Redo your search using those terms
  - Your results will be more precise than your initial keyword search

What are Subject Headings & Keywords?

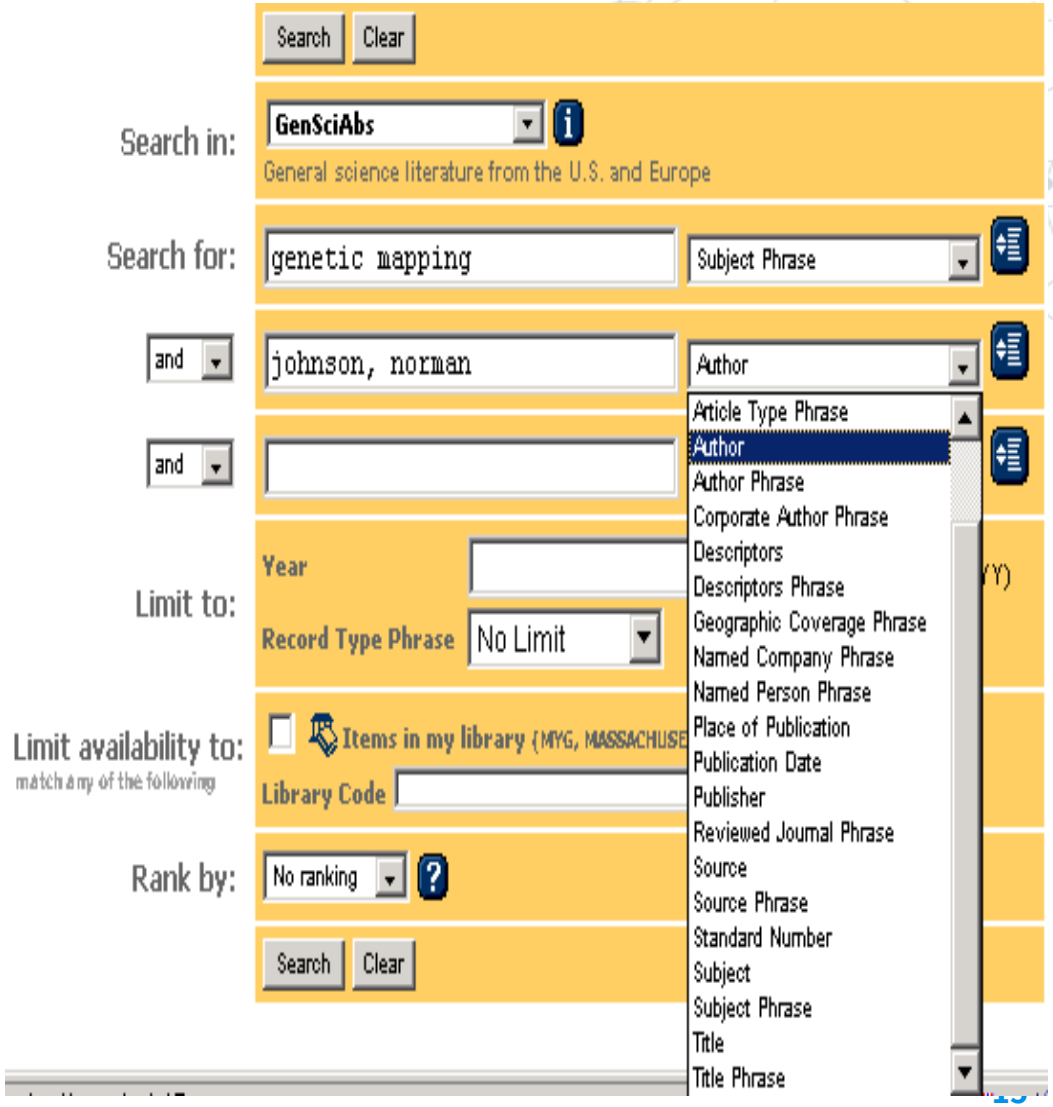
- **Subject headings** describe the content of each item in a database. Use these headings to find relevant items on the same topic.
  - Typically results in more relevant results
- **Keyword** searching is how you typically search web search engines. Think of important words or phrases and type them in to get results.
  - Typically yields many irrelevant results

Fields

- Records in databases are comprised of fields containing specific pieces of bibliographic information. Common fields include
  - Author
  - Title
  - Journal title
  - Abstract
  - Publisher
  - Date/year of publication
  - Subject/descriptor

How Database Fields Improve Your Search

- Limiting your search to specific database fields can yield more precise results.
- For example, if you are looking for books by Adam Smith instead of about him, it is more efficient to limit your search to the author field
- Use Boolean operators to combine fields to further narrow your search



Phrase Searching Tips

- Using parentheses or quotes around search words is a common way to do phrase searching, but not all databases or search engines use them
- It is often very easy to do phrase searching from the ADVANCED or GUIDED search in a database
- You click a button specifying that you want your words searched as a phrase (see example left)