

Search Techniques: Definitions & Summary Table for Library Databases

Karl E. Mundt Library & Learning Commons : Library home page -- <http://www.departments.dsu.edu/library/>

Ask a librarian -- <http://www.departments.dsu.edu/library/asklib.html>

Definitions

Boolean operators (connector words) - Connectors or operators are used to tell the computer how to combine the words you search.

AND	OR	NOT (in some systems, AND NOT, ANDNOT)
<p>Use the connector “and” to tell the system that both terms are needed to describe the subject. That is, both terms must occur in each item that shows up in the results of your search. For example, to search the topic “censorship of music,” connect the keywords with “and” by typing:</p> <p style="text-align: center;">censorship and music</p>	<p>Use the connector “or” to tell the system that either one word or the other can be used to describe the subject. That is, at least one of the terms must appear in each item that shows up in the results of your search.. (This connector is used where alternative words may be used to describe the same subject). For example, type:</p> <p style="text-align: center;">bones or skeleton</p>	<p>Use the connector “not” to find items that have one word and do not have the other word. The second word cannot appear anywhere in the item. For example, to search for items about “guns” when you don’t want items about “hunting,” type:</p> <p style="text-align: center;">guns not hunting</p> <p style="text-align: center;">In some systems: guns and not hunting</p>

Phrase searching – In some systems, can search for words side-by-side and in the order entered. The methods for indicating a phrase search will vary from system to system. Most systems use quotation marks around the phrase. For example, to search for the phrase "sex discrimination" in NetLibrary, you type: "**organic gardening**"

Another example: "**attention deficit hyperactivity disorder**"

Other search systems require you to use a symbol between the words to indicate a phrase. For example, in Firstsearch: **missile w defense w system**

In some databases, phrase searching is the default search (as in Proquest databases), so you can simply type the phrase: **growth hormone**

Truncation/Wildcards – Search for alternate forms of the same word by using special symbols or “wild card” characters to search for the string of shared letters. For example, the shared letters in “institution,” “institutions,” and “institutional,” are INSTITUTION. To search for all of these words at one time in an Proquest database, type:

institution* Some databases do automatic truncation (automatic stemming), so a wildcard is not necessary.

To search for "educate," or "educates," "education," or "educational," type: **educat*** Truncation or wildcard characters can be different in different systems.

In Library Catalog , you would type: **educat***. In Lexis-Nexis, type: **educat!**

Nesting using parentheses – may be used in many (but not all) information services to force the system to do the operations (AND, OR, NOT) that are within parentheses before doing the operations that are outside parentheses. Without using parentheses, systems have default solutions. In some systems, for example, all the ANDs are done before the ORs. Some systems simply work from left to right, performing each operation as it is reached. So, by using parentheses, you can take control of the search and override any “order of operations” that the system might use by default. If you want to search for articles about nutrition for dogs and cats, each article should include the word "nutrition" and either the word "dogs" or the word "cats."

If you type: **dogs or cats and nutrition**

the search will work correctly **only if the OR operation is done first.**

Since you don’t know for sure whether the information service will do the OR first, you can use parentheses to force that to happen, if you type:

(dogs or cats) and nutrition

What is in parentheses is done first. The final results list will have articles which contain the word "nutrition" and either the word "dogs" or the word "cats."

Search Techniques Summary Table

Mundt Library Online: <http://www.departments.dsu.edu/library>

Always look for “search tips” or “help” within each information service for additional search instructions

Information Services	Search Techniques			
	Boolean operators: AND / OR / NOT	Phrase searching	Truncation / wildcard	Nesting (paren- theses)
ABI-INFORM - <i>See Proquest</i>				
Academic Search Premier - <i>See EBSCOhost</i>				
ACM Digital Library	+ / -	Use double quotes. For example: “artificial intelligence”	* (asterisk)	yes
AP Images	AND / OR / NOT	Use double quotes. For example: “south dakota”	* (asterisk)	No
Business Source Premier - <i>See EBSCOhost</i>				
EBRARY	AND / OR / AND NOT	Use double quotes. For example: "root beer"	none	No
EBSCOhost (multiple databases: Academic Search Premier, Business Source Premier)	AND / OR / NOT	Use double quotes. For example: "missouri river"	* (asterisk)	yes
Gale Cengage (formerly Infotrac)	AND / OR / NOT	Use double quotes. For example: "big sioux river"	* (asterisk)	yes
Gale Virtual Reference Library – <i>See Gale Cengage</i>				
IEEE CS Digital Library	Use radio buttons for AND / OR / NOT	None	None	No
Junior Reference Collection – <i>See Gale Cengage</i>				
K/12 Professional Collection – <i>See Gale Cengage</i>				
LEXIS-NEXIS -Academic -Congressional -Statistical	AND / OR / AND NOT	Use "w/1". For example: missouri w/1 river	! (exclamation point)	yes
Library Catalog (South Dakota Library Network)	AND / OR / NOT	Advanced search –phrase radio button; or use double quotes: “missouri river”	* (asterisk)	yes
MathSciNet	AND / OR / NOT	Type the phrase. For example: graph theory	* (asterisk)	yes
NetLibrary	AND / OR / NOT	Use double quotes. For example: "missouri river"	* (asterisk)	yes
OCLC FirstSearch (multiple databases)	AND / OR / NOT	Use "w". For example: missouri w river	* (asterisk)	yes
Opposing Viewpoints – <i>See Gale Cengage</i>				

Information Services	Search Techniques			
	Boolean operators: AND / OR / NOT	Phrase searching	Truncation / wildcard	Nesting (parentheses)
Physical Education Index	AND / OR / NOT	Use double quotes. For example: " strength training "	* (asterisk)	yes
ProQuest (multiple databases: ABI INFORM, Research Library)	AND / OR / AND NOT	For 2-word phrase, type the phrase. For example: missouri river For longer phrases, use double quotes. For example: " big sioux river "	* (asterisk)	yes
Research Library - <i>See Proquest</i>				
Safari Tech Books Online	AND / OR / ANDNOT (all operators must be capitalized)	Use double quotes. For example: " artificial intelligence "	Automatic truncation. (Use quotes around word to stop it)	no
SciFinder	Use natural language – phrase or sentence. May use NOT.	None.	Automatic truncation.	No
Scitation	AND / OR / NOT	Use double quotes. For example: " graph theory "	* (asterisk)	No
Web of Knowledge (multiple databases: Web of Science, BIOSIS, Medline)	AND / OR / NOT	Use double quotes. For example: " thin film "	* (asterisk)	yes

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