

Boolean Logic

Introduction

The basic Boolean operators are AND, OR and NOT. Use these operators to combine terms when searching in electronic databases and search engines. Some databases and search engines also support the use of "proximity operators" such as ADJACENT and NEAR.

Each database and search engine uses slightly different commands for combining terms. Always refer to the help screens of the database or search engine that you are using before beginning your search!

AND

AND retrieves documents that contain both or all of your search terms:

travel AND Mexico will find only those documents containing both words. Many databases default to AND if a string of words is typed in, so wood instruments would retrieve the same documents as wood AND instruments.

Variations: Some search engines use an ampersand (&) for AND. Also, the plus sign (+) is often considered to be interchangeable with AND. There is, however, a subtle difference: the plus sign requires a word to appear. If you type in president +Clinton, you will retrieve all the documents containing the word Clinton, but they may not all include the word president. To get both words, you would type +president +Clinton.

OR

OR retrieves documents containing any of the terms you enter, but not necessarily all:

Germany OR Deutschland will find documents using either word.

NOT

NOT retrieves documents excluding certain search terms:

Calvin NOT Klein will find documents including information about John Calvin but not about the fashion designer. Variations: Some search engines use AND NOT, and some use a different symbol, such as an exclamation point (!), as a symbol for NOT. The minus sign (-) can also be used in some search engines to eliminate unwanted words (e.g., Calvin -Klein).

NEAR

NEAR retrieves documents with the search terms appearing within a specified number of words of each other. The exact number of words will vary from one database or search engine to another; in some, you can specify the proximity by a certain number of words.

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Cancer NEAR horoscope would probably find information about the astrological sign Cancer, but likely not information about the disease. Fur NEAR coat would find fur coat, fur lined leather coat, or coat of mink fur.

ADJ

ADJ retrieves documents in which one word directly follows another. However, this does not necessarily mean they will appear in the same order in which you typed them.

Yellow ADJ Gold would find the precious metal, but also the phrase "gold, yellow or bronze highlights."

Nesting

Many databases and search engines will allow "nesting," which is the combining of a series of search statements using parentheses to separate the operations. For example:

Satire AND (Chaucer OR Canterbury Tales)

(Fishing or fishermen) AND ((sea OR ocean OR marine) AND NOT Atlantic)