

Lecture no.: 18

Department: Information and Library Science

Subject: Information Storage & Retrieval

Name of the lecture: How to use the Internet tools and services-2

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3- IMPLIED BOOLEAN: PLUS & MINUS

In many search engines, the plus and minus symbols can be used as alternatives to full Boolean AND and AND NOT. The plus sign (+) is the equivalent of AND, and the minus sign (-) is the equivalent of AND NOT. There is no space between the plus or minus sign and the keyword.

NOTE: AltaVista's Simple Search **requires** the use of plus and minus rather than AND, OR, and AND NOT.

+welding +process

+Saturn -car

Couch AND NOT sofa

IMPORTANT: Use AltaVista's Simple Search for implied Boolean (+/-) searches, and use AltaVista's Advanced Search for full Boolean (AND, OR, AND NOT) searches.

4- PHRASE SEARCHING

Surrounding a group of words with double quotes tells the search engine to only retrieve documents in which those words appear side-by-side. Phrase searching is a powerful search technique for significantly narrowing your search results, and it should be used as often as possible.

"John F. Kennedy"

"Walt Disney World"

"global warming"

For best results, combine phrase searching with implied Boolean (+/-) or full Boolean (AND, OR, and AND NOT) logic.

+"heart disease" +cause

"heart disease" and cause

The above example tells the search engine to retrieve pages where the words **heart disease** appear side-by-side and the word **cause** appears somewhere else on the page.

NOTE: ON IMPLIED BOOLEAN LOGIC (+/-): When a phrase search is combined with additional keywords using implied Boolean logic (+/-), you must put a plus or minus sign before the phrase as well as the other keywords. If the search involves a phrase with no additional keywords (e.g., "Walt Disney World"), the plus sign before the quotes is optional.

5- PLURAL FORMS, CAPITAL LETTERS, AND ALTERNATE SPELLINGS

- Most search engines interpret lower case letters as either upper or lower case. Thus, if you want both upper and lower case occurrences returned, type your keywords in all lower case letters. However, if you want to limit your results to initial capital letters (e.g., "George Washington") or all upper case letters, type your keywords that way.
- Like capitalization, most search engines interpret singular keywords as singular or plural. If you want plural forms only, make your keywords plural.
- A few search engines support truncation or wildcard features that allow variations in spelling or word forms. The asterisk (*) symbol tells the search engine to return alternate spellings for a word at the point that the asterisk appears. For example, capital* returns web pages with capital, capitals, capitalize, and capitalization.

6- TITLE SEARCH

Field searching is one of the most effective techniques for narrowing results and getting the most relevant websites listed at the top of the results page. A web page is composed of a number of fields, such as title, domain, host, URL, and link. Searching effectiveness increases as you combine field searches with phrase searches and Boolean logic. For example, if you wanted to find information about George Washington and his wife Martha, you could try the following search:

+title:"George Washington" +President +Martha

title:"George Washington" and President and Martha

The above **TITLE SEARCH** example instructs the search engine to return web pages where the phrase George Washington appears in the title and the words President and Martha appear somewhere on the page. Like plus and minus, there is **no space** between the colon (:) and the keyword.

7- DOMAIN SEARCH

In addition to the title search, other helpful field searching strategies include the domain search, the host search, the link search, and the URL search. The **DOMAIN SEARCH** allows you to limit results to certain domains such as websites from the United Kingdom (.uk), educational institutions (.edu), or government sites (.gov).

+domain:uk +title:"Queen Elizabeth"

domain:uk and title:"Queen Elizabeth"

+domain:edu +"lung cancer" +smok*

domain:edu and "lung cancer" and smok*

The current U.S. domains are the following:

.com	=	a commercial business
.edu	=	an educational institution
.gov	=	a governmental institution
.org	=	a non-profit organization
.mil	=	a military site
.net	=	a network site

Most websites originating outside the U.S. have a country domain indicating the country of origin. For a list of all country domains, visit [this site](#).

8- HOST SEARCH

The **HOST SEARCH** comes in handy when you need to find something located at a large site that does not have an internal search engine. With this search technique, you can search all the pages at a website (contained in the engine's database) for keywords or phrases of interest.

NOTE: Because the major search engines do not always log an entire website, use an internal search engine, if the website has one, for best results.

+host:www.disney.com +"special offer"

host:www.disney.com and "special offer"

9- URL SEARCH

The **URL SEARCH** limits search results to web pages where the keyword appears in the URL or website address. A URL search can narrow very broad results to web pages devoted to the keyword topic.

+url:halloween +title:stories

url:halloween and title:stories

10- LINK SEARCH

Use the **LINK SEARCH** when you want to know what websites are linked to a particular site of interest. For example, if you have a home page and you are wondering if anyone has put a link to your page on their website, use the Link search. Researchers use link searches for conducting backward citations.

link:www.pepsi.com

link:www.ipl.org/ref

Reference

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2. The best search engines. University of California Berkeley Library: Teaching Library Internet Workshops. [Online] URL
<http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/SearchEngines.html>