
USING INTERNET SEARCH ENGINES AND DIRECTORIES

It is estimated that there are over five hundred and fifty billion documents stored on the World Wide Web. Often a search can give results in the thousands. It is important to know how to select a search engine and make maximum use of its search capabilities. Remember, search engines have features in common but there are differences as well. Always visit the help links for each search engine before beginning a search. The help links will explain how to make the best use of the search engine's search features. (See our Internet Search Engine Chart for Suggestions.) For an extended list of search engines and directories on the Web go to **BEAUCOUP**. (<http://www.beaucoup.com> .) Beaucoup lists over 2500 search engines and directories and lets you link to them easily.

Subject Directories

Subject directories are a good place to start searching. Directories usually consist of sites that are selected by professional searchers for their quality. They are generally arranged alphabetically in subject categories. If you are not very familiar with your subject or appropriate terms to use to search, a good directory will usually lead you to the right information.

Yahoo	http://www.yahoo.com
Internet Public Library	http://ipl.org
Librarians Index to the Internet	http://lii.org
Virtual Library	http://vlib.org

Search Engines

Search Engines are basically robots or spiders that crawl the Internet, collect information randomly and index it. They are not usually very selective. They do, however, let you refine your searches. Always visit the help page before searching. (See search techniques on the back of this sheet.)

Google	http://www.google.com
Altavista	http://www.altavista.com
Lycos	http://www.lycos.com

Meta-search Engines

Meta-search engines search several search tools at once. They are timesavers but they may also retrieve unrefined results.

Dogpile	http://www.dogpile.com
Mamma	http://www.mamma.com
Metacrawler	http://www.metacrawler.com

Search Techniques

The following are basic search techniques offered by most search engines. Remember, all search engines are different. Search techniques and search symbols may vary from search engine to search engine. It is best to consult the help pages of the search engine before you begin.

Require or Exclude a Term – Boolean Searching

If you wish to retrieve a document that contains a particular word, put a plus sign (+) before the word. This way you will only retrieve documents that contain that word. If you would like to be sure that words or topics are excluded put a minus sign (-) before the word.

Example: To find recipes for cookies with oatmeal but without raisins, try
cookie recipe +oatmeal -raisins

The Boolean operators **AND**, **OR**, **NOT** allow you to expand or narrow a search. **AND** and **NOT** narrow a search. **OR** expands a search

Example: **earthquakes AND California** finds documents that must contain both words, earthquake and California.

earthquakes NOT California finds documents that contain information on earthquakes, but not California.

Earthquakes AND (California OR Nevada) finds information on Earthquakes and/or California, and/or Nevada.

Phrase Search

Phrase search allows you to search a string of words exactly as you type them. If you type **emotional intelligence** into a search engine it may bring back documents that have the word emotional in one part of the document and the word intelligence in the other part of the document. Using quotation marks (“ ”) around the words will search them as a phrase.

Example: To find documents that contain all the words exactly as you type them try **“emotional intelligence”**.

Truncation and Wildcards

Truncation and wildcards allow you to expand your search by finding plurals or variations of a word. Usually the symbol (*) is used.

Example: **veg*** will find documents with the words vegetable, vegetables, vegetarian, etc.

gr*y will find documents with the word variations grey or gray.

Case Sensitivity

Some search engines are case sensitive. Use uppercase letters to limit your search to proper names.

Example: **anthrax** will bring up more documents on the disease

Anthrax will bring up more documents on the rock band