

# Search Strategy

## Introduction:

Nearly everyone who uses the Internet has had the frustrating experience of doing a web search and being flooded with hundreds of results. By choosing the appropriate search engine, controlling the terms that you search for, and using a few tricks, you can make Internet searching faster and more efficient.

## The Different Kinds of Search Tools:

- A **subject directory** "offers a collection of links to Internet resources submitted by site creators or evaluators and organized into subject categories." Subject directories are useful when you are conducting general research or want to find resources recommended by experts and evaluators.

Examples include:

- Yahoo (<http://www.yahoo.com>)
- Open Directory Project (<http://www.dmoz.org/>)
- About.com (<http://www.about.com/>)
- In contrast, a **search engine** is "a searchable database of Internet files collected by a computer program." Use a search engine when you are looking for a particular web site, have a specific research question, or are looking for the most current information.

Examples include:

- Google (<http://www.google.com>)
- Northern Light (<http://www.northernlight.com>)
- Lycos (<http://www.lycos.com>)
- Microsoft Networks (<http://www.msn.com/>)
- Altavista (<http://www.altavista.com/>)
- **Meta-search engines** send searches to several search engines at once, then build the results into a coherent results pages.

Examples include:

- Dogpile (<http://www.dogpile.com/index.gsp>)
- Metacrawler (<http://www.metacrawler.com/index.html>)
- **Natural Language Engines** allow you to ask questions in ordinary language: "What is a screech owl?" or "When did Hank Williams die?"
- Ask Jeeves (<http://www.askjeeves.com>)

- **Specialized search engines** enable you to narrow your search to a particular discipline and profile web sites of particular interest. See an extensive listing of specialized search engines, see Search Engine Colossus (<http://www.searchenginecolossus.com/>).

- FindLaw focuses upon legal information (<http://findlaw.com/>).
- ERIC (Educational Resources Center) is a useful resource for anyone researching education (<http://www.accesseric.org/>).

## Evaluating Search Engines:

Spend a little time testing how a few different search engines work. Which seems to return the most accurate results? Which has the most appealing features? If your search engine allows advanced as well as simple searches, what are the differences between the two?

Different search engines allow you to restrict your search by format (audio, video, image, etc), geographic location, date, language, and so forth. To figure out which search engine is best suited to what you are looking for, try Chris Sherman's Interactive Search Wizard (<http://websearch.about.com/internet/websearch/library/weekly/aa022900a.htm>). For a comprehensive list comparing the capabilities of various search engines, check out How to choose a Search Engines or Directory by the University of Albany Library.

In general, the most recommended general search engines seem to be: Google , the emerging favorite among techies (<http://www.google.com/>); Microsoft Networks (<http://www.msn.com/>); Yahoo (<http://www.yahoo.com/>); and Hotbot (<http://hotbot.lycos.com/>). See, for instance, the CNET rankings of the Top Five Search Sites.

## Useful Searching Techniques:

Let's try out some techniques that will allow us to tailor our searches. We'll use altavista (<http://www.altavista.com/>).

- **Field searching:** You can restrict your search to particular fields within a web pages, which should narrow your results. For instance, say you want to find a web page that is about the Lone Ranger, and you suspect that you would get more accurate results by looking only within the title. Search for:

*Example:* title: lone ranger

- **Wildcard searches:** If you don't want to exclude terms that end with s, ing, etc, use a wildcard search by truncating the search term with a \*

*Example:* Tex\* gets Texas, Texan (but watch out: it will also get textile and text, and so forth)

- **Phrase searching:** To find exact terms, use quotation marks.

*Example: "Blue Suede Shoes"*

## **Boolean Searches:**

In the nineteenth century, the British mathematician Google Boole developed a new algebra of logic that has become fundamental to the design of digital circuits--and to sophisticated web searching. You can use Boolean logic and other strategies to perform more exact searches. Do keep in mind that not every search engine will support the features mentioned below; check Search Engine Features for Searchres for a quick overview of which search engine supports what.

For an explanation of Boolean logic, see the primer provided by the University of Albany Library. Note: On some search engines, Boolean terms (AND, OR, NOT) must be CAPITALIZED or they may be excluded from the search.

Let's try out Boolean searching on Hotbot (<http://hotbot.lycos.com/>).

- **Match any (OR):** Retrieves records in which at least one search term is present. Use this search when several related terms are relevant to your research topic. Say that you want to find everything you can about dogs, but you know they are also called canines.

*Example: dog OR canine*

- **Match all (AND):** Retrieves records in which both search terms are present. Use this method when you want to examine the relationship between ideas. In many Boolean search engines, you can use + rather than AND. Say that you want to find out about George Bush in Texas

*Example: Bush AND Texas  
or Bush + Texas*

- **Exclude (NOT):** Excludes specified term from the search. For instance, you could search on "cowboy NOT football" if you wanted to exclude the Dallas Cowboys football team from your search. In many Boolean search engines, you can use - rather than NOT. Say that you want to find out about the Texas Rangers, but not the baseball team

*Example: "Texas Rangers" NOT baseball  
or "Texas Rangers" -baseball*

- **Combinations:** You can combine the search strategies. Say you're searching for information on Star Trek, but not those newer shows:

*Example: "star trek" -voyager -"deep space nine" -"next generation"*

## Advanced Search Engines:

If this Boolean business seems too complicated, try using the "advanced" option offered by many search engines.

Let's look at some features of advanced (or "Power") searches:

- The Advanced Search on Hotbot (<http://hotbot.lycos.com/>) allows you to specify criteria such as:
  - which words are included
  - language
  - date
  - media type included
  - location
- The Advanced Search on Google ([http://www.google.com/advanced\\_search](http://www.google.com/advanced_search)) allows you to search by:
  - Which search terms are included (any, all, exact phrase, without)
  - Language
  - Date
  - Where the terms occur (title or URL)
  - Which domains you want to search (.com, .edu, .gov)
  - Images (beta)
  - Similar pages and URLs

### Truncation

- Truncation tells the database you're searching to fill in for one or more letters in your keyword search. Truncation symbols can be used either inside the word or at the end of it. While each database uses its own truncation symbols, the asterisk \* is used most often. Different databases using different symbols for truncation.
- **Examples:**

wom\*n     - will find *woman* or *women*  
diet\*     - will find *diets, dietitian, dieting, dietary*  
cartograph\* - will find *cartographic, cartography, cartographical*  
plan\*     - will find *plan, plans, planning*  
system\*   - will find *system, systems*  
science\*   - will find *science, sciences*

A well designed search strategy:

1. Saves you time in the long run
2. Helps you to search for information in the right places
3. Helps you to find a larger amount of relevant information
4. Makes it possible to evaluate your search results.

**Reference:**

(1)<http://www.library.rice.edu/research/find.../internet-searching-strategies>).

(2)<http://www.ITC - Search strategies.htm>