

## **-USING SEARCH ENGINES-**

### **WHAT IS A SEARCH ENGINE?**

A search engine is a computer program that locates information in its database that “best” matches a query. The World Wide Web itself is a database that hasn’t been adequately indexed.

**It is important to remember that when you are using a search engine, you are NOT searching the entire Web. You are actually searching a portion of the Web as it was when it was captured in a fixed index created at an earlier point in time.**

EXAMPLES OF GENERAL SEARCH ENGINES: AltaVista, Hotbot, Northern Light

EXAMPLES OF SUBJECT-SPECIFIC SEARCH ENGINES: FirstGov.gov, FlipDog, Internet.com

### **WHAT IS A METASEARCH ENGINE?**

A metasearch engine simultaneously searches the databases of several search engines rather than its own database.

#### **HOW DO METASEARCH ENGINES DISPLAY THEIR RESULTS?**

- Single List** Most metasearch engines display multiple-engine search results in a single merged list, from which duplicate entries have been removed.
- Multiple Lists** Some metasearch engines do not collate multiple-engine search results but display them instead in separate lists as they are received from each engine. Duplicate entries may appear.

#### **WHEN DO YOU USE METASEARCH ENGINES?**

- Use metasearch engines when you are in a hurry.
- Metasearch engines are useful in obtaining a quick overview on a subject and/or unique term.
- Use metasearch engines when you are conducting a relatively simple search and also when you are not having any luck pulling up documents in your search.

EXAMPLES OF METASEARCH ENGINES: Dogpile, Google, Metacrawler

### **WHAT ARE SUBJECT DIRECTORIES?**

Subject directories, unlike search engines, are created and maintained by human editors, not electronic spiders or robots. The editors review and select sites for inclusion in their directories on the basis of previously determined selection criteria. The resources they list are usually annotated.

Directories tend to be smaller than search engine databases, typically indexing only the home page or top level pages of a site. They may include a search engine for searching their own directory (or the Web, if a directory search yields unsatisfactory or no results.)

#### **WHEN DO YOU USE SUBJECT DIRECTORIES?**

- Subject directories are best for browsing and for searches of a more general nature. They are good sources for information on popular topics, organizations, commercial sites and products.

- When you'd like to see what kind of information is available on the web in a particular field or area of interest, go to a directory and browse through the subject categories.

#### EXAMPLES OF SUBJECT DIRECTORIES:

LookSmart, Open Directory Project ([www.dmoz.org](http://www.dmoz.org)), Yahoo!

EXAMPLES OF PORTALS: Excite, NBCi.com, Yahoo!

EXAMPLES OF VORTALS: Fool.com (finance and folly), KoreaLink, MountainZone

#### **WHAT ARE LIBRARY GATEWAYS?**

Library gateways are collections of databases and informational sites, arranged by subject, that have been assembled, reviewed and recommended by specialists, usually librarians. These gateway collections support research and reference needs by identifying and pointing to high quality pages on the web.

#### EXAMPLES OF LIBRARY GATEWAYS:

Academic Information ([www.academicinfo.net](http://www.academicinfo.net))

Argus Clearinghouse (<http://clearinghouse.net>)

Digital Librarian ([www.digital-librarian.com](http://www.digital-librarian.com))

Librarian's Index to the Internet (<http://lii.org>)

#### **WHAT ARE SPECIALIZED DATABASES?**

Specialized databases are databases created by professors, researchers, experts, governmental agencies, business interests, and other subject specialists and/or individuals who have a deep interest in, and professional knowledge of, a particular field and have accumulated information and data about it.

EXAMPLES OF SPECIALIZED DATABASES: FirstSearch, ProQuest

#### **WHAT IS THE "INVISIBLE WEB"?**

There is a large portion of the web that search engine spiders cannot, or may not, index. It has been dubbed the "Invisible Web" and includes, among other things, password-protected sites, documents behind firewalls, pdf files, archived material, interactive tools such as calculators and dictionaries, and the contents of databases.

Web profilers agree that the Invisible Web, which is made up of thousands of such documents and databases, accounts for 60 to 80 percent of existing web material. This is information you probably assumed you could access by using standard search engines, but that's not always the case. According to [www.invisibleweb.com](http://www.invisibleweb.com), these resources are not usually visible to search engine spiders because they are embedded within individual web sites.

Library gateways and specialty search tools are good sources for direct links to database information stored on the Invisible Web.

Aids in searching:

Boolean Logic:

**AND** fewer results, requires all search terms present

**OR** more results, chooses sites that include either search term

**NOT** fewer results, eliminates unwanted search terms

Case Sensitivity: All lower case searches return a greater number of results, all capital letters produce fewer results, capitalized words must match exactly.

Proximity Indicators: Allows searching of terms in relation to one another (wX) indicates terms within X number of words in the same order; (nX) indicates terms within X number of words in any order as long as they are within X numbers of one another.

Quotation Marks: Require results to be identical to search phrase.

Truncation: Usually "\*" (check "Help" function if it doesn't work), search for variations of a word; plural, --ize. Use at least the first four letters of the word.

Wild Card: Usually "?" (check "Help" function if it doesn't work), picks up variations of a word; wom?n will retrieve "woman" and "women".

### **SEARCH ENGINE INFORMATION**

<http://www.searchengineshowdown.com>

<http://www.searchenginewatch.com>

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