



# RESEARCH

## *Use Search Engines to systematically search the Web for documents on a specific topic.*

Searching for information is a trial-and-error process in which there is no guaranteed method for success. The Web may or may not contain the documents you need, and even if it does, there is no assurance that you will be able to find it. The Web contains literally millions of documents. It is important for you to qualify your searches so you are more likely to retrieve the documents you really want.

### WWW Directories...

There is a "Special Internet Connections" list that is collated by category, not service type. The URL is:

[www.spectracom.com/islist/](http://www.spectracom.com/islist/)

The WWW Virtual Library is:

<http://vlib.stanford.edu/Overview.html>

The EInet Galaxy provides you with a navigation tool allowing you to move easily around the Galaxy environment and quickly locate relevant information:

[www.einet.net/](http://www.einet.net/)

### Search Engines...

Search engines are like card catalogs or databases in a library. Enter a **key word** or phrase into a **search form**. The search engine will list the titles of the documents it finds, together with a hyperlink to each document. Some en-

gines also display an abstract of each document to help you determine its relevancy to your key word.

Dozens of search engines are available...each of which uses its own database of Web documents. A search engine is only as good as its database and the algorithm it uses to search that database for relevant documents. The larger the database, the greater number of **hits** returned.

### Locating Search Engines...

In Netscape Navigator, click on **Net Search** for a choice of several search engines. Netscape Communicator has a **Search** icon instead.

Entering the URL of the search engine into the **Location** box will take you to the home page of the search engine. This may provide a more complete page in which to enter your search parameters than the default Netscape page. Here are some popular ones:

[www.altavista.digital.com](http://www.altavista.digital.com)  
[www.dejanews.com](http://www.dejanews.com)  
[www.elibrary.com](http://www.elibrary.com)  
[www.excite.com](http://www.excite.com)  
[www.infoseek.com](http://www.infoseek.com)  
[www.looksmart.com](http://www.looksmart.com)  
[www.lycos.com](http://www.lycos.com)  
[www.mckinley.com](http://www.mckinley.com)  
[www.opentext.com](http://www.opentext.com)  
[www.webcrawler.com](http://www.webcrawler.com)  
[www.yahoo.com](http://www.yahoo.com)

Try this URL for W3 Search Engines:

<http://cuiwww.unige.ch/meta-index.html>

Or use the Bowie High School Search Engine List that provides you with 52 search engines on one page:

[www.whc.net/bowiehs/search.html](http://www.whc.net/bowiehs/search.html)

### **Use Multiple Engines...**

There is no single best engine. Every search engine uses a different database and the same key word(s) produces different results for different engines. Each search engine handles key words differently. Yahoo, for example, returns **categories** as well as individual documents. A category is a list of sites organized by topic. There is no right or wrong way to go through the list of documents. Most engines list the more relevant hits near the top of the list.

### **Search Techniques...**

Look for the help feature of whichever search engine you choose. Depending on the search engine, there are different techniques for entering the parameters of your search and the relationship between words. In Lycos, for example, they suggest a “loose match” when you are searching initially in order to return the largest number of documents. Specifying a “strict match” will force Lycos to be more selective. This should return fewer hits, but they will be more relevant. Keep trying. There is no single answer to what works best.

Many search engines offer search options allowing you to combine or separate key words with And, Or, and Not. The And operator requires that every key word must be present. For example, if searching for the Mona Lisa, both Mona and Lisa would have to be found to return a hit. The Or operator requires that only one of the terms be present. In the example, Mona or Lisa could be matched. The Not operator would allow you to specifically omit certain key words.

Some services offer mechanisms that permit a user to specify search terms more precisely. For ex-

ample, some search engines permit you to specify which words must appear on a page and which are optional. One service uses a plus sign to designate required terms. When terms are required, ambiguity can be limited.

### **Searching for a Concept...**

Rather than a key word like Mona Lisa, try searching on “Renaissance painting” to gain related information. Some search engines automatically suggest related topics. InfoSeek, for example, not only returns documents about Eleanor Roosevelt, but will suggest World War II and the Depression.

### **Internal Search Engines...**

Many sites, like San Francisco State, provide an internal search engine to help find information at the site. Look for them. They are great timesavers.

### **Footnotes...**

When giving credit to your sources on the Web by using footnotes or endnotes, be sure to include the URL and the date you obtained the information. The Web can change moment to moment!

### **Glossary of Internet Search Terms...**

**automated search service...**Any service that locates information without requiring a user to make decisions or select from menus. Automated search services either search titles or complete documents. Examples include Lycos, Yahoo!, and Alta Vista. Also called **search engines**.

**DNS...**The Internet service used to look up a computer’s name and find the computer’s IP address. Often if a URL is typed incorrectly, the browser will display a screen giving a DNS error.

**search key...**A string of characters that a user provides to a search service. The service searches for titles or documents that contain the string.

Computing Services can be reached...

On the Web: [www.sfsu.edu](http://www.sfsu.edu) Under “Information Technology”

E-mail: [training@sfsu.edu](mailto:training@sfsu.edu) Help Desk: x 81420