



SEARCHING THE WEB

At this point you should be ready to really sink your teeth into the World Wide Web. As an educator, you are probably always looking for new sources of information and the Web is the place to look! The following is an introduction to “search engines.” Search engines are powerful Internet tools that assist you in gathering the information you desire. Without search engines, the World Wide Web would be useless to most people. Search engines organize the chaos that exists on the Web in a logical way, making it easy to use.

Before you begin a search, certain steps should be taken to make the search more fruitful. One method to use is keywords and phrases. To begin, create a list of things associated with your topic. This will save time when you are online and make the search more efficient. At times, searches lead to dead ends and you will need alternative paths to follow.

For example, when researching “sound” your list might look like this

- sound
- sound waves
- hearing
- hearing-loss problems
- vibrations
- senses
- music
- acoustics
- how to make sounds
- the physics of sound

Many other possibilities have not been included, but each of the phrases listed above will give you information on the different aspects on the topic “sound.” You may add to your list while conducting your search, as new ideas will surface as you visit different sites.

Another method you may want to try is semantic Webbing before you start. This is especially beneficial when working in groups or in a classroom setting. This will keep students focused on the; task before

they get to a computer. Once you’re ready, go ahead and access the Web.

A word of caution: searching for information on the Internet can be a time-consuming process. For this reason, you may wish to locate appropriate websites for your students and then bookmark these websites to enable them to save significant amounts of time. You can set up a free site just for your bookmarks for use with students at www.portaportal.com or <http://del.icio.us>.

What Is a Search Engine?

Search engines are Internet directories that enable you to link to millions of websites that potentially contain what you are looking for. These directories search for websites in different ways. Some are “crawler” or “spider”-based, producing automatic results listings as the engine combs through the Web; some instead depend on humans for their listings; others are hybrids of the two; still others are metacrawlers, that is crawling search engines that actually search other selected crawling search engines simultaneously when you submit your query.

In general, you should begin with general topics and become more and more specific. When you enter a keyword or phrase, the search engine sorts through the sites it has listed to find the ones that match your search request.

It is important to note that search engines do not all list the same websites. Some have more than others and some specialize in a certain type of site. Also note that not every site that a search engine turns up will be useful to you. This is because the search engines find matches to words and phrases, not content.

Starting Your Search

If your browser has a search button you may click on it or you may use one of the sites listed at the end of this article.

How Do You Use a Search Engine?

Basic Search

This is the easy part! After you have arrived at a search engine's home page, you will see a blank space (called a "dialogue box") where you'll post your key word or phrase. To post your term or phrase, you may need to point the mouse and click within the dialogue box until you see a flashing cursor, then enter your term or phrase. You should experiment with enclosing a phrase in quotes, as this can serve to limit your search to websites that have the particular phrase within them rather than just one of the words within the phrase.

Having entered your term or phrase, click on search or hit the enter or return key. In seconds the search engine will give the results of the search. Most likely, the search engine will list hundreds, even millions of sites. Most search engines will give you the top ten matches it found and will allow you to view the rest of the listing if you choose.

Advanced Search

You may need to refine your search to make the results more meaningful. When you enter a series of words or a phrase such as friction and the surface tension of water the search engine performs the following. First of all, it ignores "and the" & "of" and looks only at friction, surface, tension, and water. However, most likely (during the first search) it will look at each of the words as individual components. In other words, it will search for all the sites with the identifier word friction, all of the sites with the identifier word surface, all of the sites with the identifier word tension, and all of the sites with the identifier word water. It will not recognize that the words belong together, YET! (This is why you could easily end up with 32,974 "hits," some dealing with the surface of the moon and others with tension in your neck caused by lack of sleep!)

There are ways to narrow your search. One of the easiest, as mentioned earlier, is to enclose the phrase in quotes. Another is to use Boolean logic. Boolean logic consist of three logical operators: OR, AND, NOT. By using these to join two or more keywords or phrases together logically a search can be made more specific. The OR operator will retrieve all sites that have at least one of the keywords on it. For example, if you conduct a search using the phrase: cats OR dogs, the search will return all sites that refer to cats only, dogs only, and also those that refer to both cats and dogs.

The AND operator will retrieve all sites that have all the related keywords on it. In this case conducting a search using the phrase: cats AND dogs will return only those sites that refer to both cats and dogs.

The NOT operator is used to limit retrieved sites to only those relating to the subject of the search. If you wanted information on just cats and not dogs you could conduct a basic search on the keyword cats and it will retrieve cat only sites and also cat and dog sites. If you conducted the search using the phrase: cats NOT dogs then any sites that references dogs as well as cats would be eliminated leaving just cat only sites. Please note that Boolean operators are always all upper case.

Some search engines have a button for advance searches. Clicking on it takes you to a template where you fill in information on your search. The program combines the information with Boolean operators and conducts the search. Using this feature eliminates the need for you to understand how the operators work. Remember different search engine have different web pages in their databases. If your search comes back empty and you are sure that the information is out there you may want to switch to another search engine to see if you come up with different sites using the same keyword(s).

Each of the search engines you will use has strengths and weaknesses. Using these tools is the only way to gain experience and determine which is best for your needs. Many people favor one or two engines and use them exclusively. However, don't forget there are many out there, and just like websites, more are coming into existence all the time.

Most search engines tend to work the same way; they use keywords or phrases and supply hypertext links to

other areas. Some will supply links to general subject areas to limit search parameters, such as education, art, government, science and business are common.

For everything you want to know (and more) about search engines, go to <http://searchenginewatch.com>. You'll find information on major search engines and directories, how search engines work, web searching tips, etc.

Listed below is a selection of some of the most popular search engines:

ALLTHEWEB.COM

<http://www.alltheweb.com>

While this is Yahoo-powered, it allows a lighter, more customizable search.

ASK JEEVES FOR KIDS

Kids enter questions and "Jeeves" (a 'butler'), tries to point kids to the right Web pages for their answers. If Jeeves doesn't have a ready answer, it will pull results from several search engines. No site should appear that is on the CyperPatrol blocked list.

DOGPILE

<http://dogpile.com/>

This award-winning search engine searches Google, Yahoo, and MSN simultaneously.

EXCITE

<http://www.excite.com>

Formerly crawler-based, Excite, which is now owned by Infospace, uses Infospace's meta-search engines.

GOOGLE

<http://google.com/>

Google, a top choice for searching, is a crawler-based (automated) search engine. However, its "More" link leads to human-powered directories. It has comprehensive Web coverage with relevant results. It's a good first-stop in your hunt not only for Web pages, but also for images, newsgroup discussions, news information, and products.

Google has cached links, which allows you to "resurrect" dead pages or to see the earlier version of a recently changed page. Like Yahoo, Google is an "all in one" search page (and not a metacrawler).

HOT BOT

<http://www.hotbot.com>

Hot Bot gives easy access to searching Yahoo, Google, and Teoma, three very popular engines. While it cannot combine the search results, it does provide a fast way to get the results from the three in one place.

INFOSEEK

<http://infoseek.go.com/>

This search engine is good for digging deeply into a subject. It gives about 100 links per search and provides some preview text. Its homepage includes tips on how to use the service.

KIDSCCLICK

<http://www.kidsclick.org>

This site was created by librarians to help kids find safe, educational websites. It is organized by subject and very easy to use.

LYCOS

<http://www.lycos.com>

This highly-rated search engine is known for its speed as well as quality of its information and relevance of its results. It claims to have a base exceeding 8 million sites and is adding to it every day. It also provides introductory text for each site, choice of searching only for pictures, sounds, etc., and allows you to return only the top 5% sites.

METACRAWLER

<http://www.metacrawler.com>

This search engine is unique because it searches other search engines and cross-references them. It is a good engine but tends to be a little slower than the others.

NET NANNY KIDS DIRECTORY

**[http://search.netnanny.com/
?pi=nnh3&ch=kids](http://search.netnanny.com/?pi=nnh3&ch=kids)**

List's 20,000+ kid-friendly sites hand-picked by Looksmart employees for quality. It also offers a safe search of the whole Web using Net Nanny software.

NORTHERN LIGHT

<http://www.northernlight.com>

This award-winning search engine has become increasingly popular. Using Custom Search Folders, comprehensive information regarding your search is provided. It is an excellent resource for high school students.

WEBCRAWLER

<http://www.webcrawler.com>

AOL manages this search engine. Webcrawler is quick and easy to use, and will return 25 sites at a time. However, it doesn't give any description of the sites it finds. Speed is the name of the game here.

YAHOO

<http://www.yahoo.com>

This is the pioneer Internet guide. It uses a table of-contents approach to its organization. It lists its top categories and allows you to work through its sub-directories to find what you need. You can also search by keyword and tell Yahoo how many results you want returned. Since Yahoo is a growing company, it offers many other links on its homepage including one to its new service, Yahoo!igans.

YAHOO!IGANS

<http://www.yahooligans.com/>

This is a search engine designed specifically for children. It works by keyword search or follows topic lines until you find what you want.