What is a Search Tool?

A **search tool** is a computer program that performs searches to access Web sites and retrieve information. Each search tool is owned by a single entity, such as a person, a company, or an organization, which operates it from a master computer. When you use a search tool, your request travels to the tool’s Web site. There it conducts a search of its database and directs the response back to your computer.

What is a Search Method?

The **search method** is the way a search tool requests and retrieves information from its Web site. A search begins at a selected search tool’s Web site, reached by means of its address or URL. Each tool’s Web site comprises a store of information called a database. This database has links to other databases at other Web sites, and the other Web sites have links to still other Web sites, and so on. Each search tool has extended capabilities by means of a worldwide system of links.

Types of Search Tools

1. **Directory Search Tool** – searches for information by subject matter. It is a hierarchical search that starts with a general subject heading and follows with a succession of increasingly more specific sub-headings. The search method it employs is known as a subject search. Choose a subject search when you want general information on a subject or topic.
   
   **Advantage:** It is easy to use. Also, information placed in its database is reviewed and indexed first by skilled persons to ensure its value.

   **Disadvantage:** Because directory reviews and indexing is so time consuming, the number of reviews are limited. Thus, directory databases are comparatively small and
their updating frequency is relatively low. Also, descriptive information about each site is limited and general.

Example: www.yahoo.com

2. **Keyword Search Tool** – searches for information through use of keywords and responds with a list of references or hits. The search method it employs is known as a keyword search. Choose a keyword search to obtain specific information, since its extensive database is likely to contain the information sought. Keyword searches require far more explanation than subject searches, because of their broader scope and greater complexity.

   **Advantage:** Its information content or database is substantially larger and more current than that of a directory search tool.

   **Disadvantage:** Not very exacting in the way it indexes and retrieves information in its database, which makes finding relevant documents more difficult.

   **Example:** www.infoseek.com

3. **Subject and Keyword Search Tools** – uses both the subject and keyword search methods interactively as described above. In the directory search part, the search follows the directory path through increasingly more specific subject matter. At each stop along the path, a search engine option is provided to enable the searcher to convert to a keyword search. The subject and keyword search is said to be coordinated. The further down the path the keyword search is made, the narrower is the search field and the fewer and more relevant the hits. Use this type of search when you are uncertain whether a subject or keyword search will provide the best results.

   **Advantage:** Ability to narrow the search field to obtain better results.

   **Disadvantage:** This search method may not succeed for difficult searches.

4. **Multi-engine Search Tool** – or meta-search tool utilizes a number of search engines in parallel. The search is conducted via keywords employing commonly used operators or plain language. It then lists the hits either by search engine employed or by integrating the results into a single listing. The search method it employs is known as a meta search. Use this tool to speed up the search process and to avoid redundant hits.

   **Advantage:** Tolerant of imprecise search questions and provides fewer hits of likely greater relevance.

   **Disadvantage:** Not as effective as a search engine for difficult searches.

   **Example:** www.metacrawler.com

### Preferred Search Tools

<table>
<thead>
<tr>
<th>Directory (Subject Search)</th>
<th>Search Engine (Keyword Search)</th>
<th>Multi-Engine (Meta Search)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encyclopedia Britannica</td>
<td>AltaVista</td>
<td>Dogpile</td>
</tr>
<tr>
<td>LookSmart</td>
<td>Excite</td>
<td>Mamma</td>
</tr>
<tr>
<td>Yahoo</td>
<td>InfoSeek</td>
<td>Metacrawler</td>
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<td></td>
<td>OneKey</td>
<td>SavvySearch</td>
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</table>

<table>
<thead>
<tr>
<th>Search Tool</th>
<th>Home Page Address</th>
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<tbody>
<tr>
<td>AltaVista</td>
<td><a href="http://www.altavista.digital.com">www.altavista.digital.com</a></td>
</tr>
<tr>
<td>Encyclopedia Britannica</td>
<td><a href="http://www.britannica.com">www.britannica.com</a></td>
</tr>
<tr>
<td>Dogpile</td>
<td><a href="http://www.dogpile.com">www.dogpile.com</a></td>
</tr>
</tbody>
</table>
Excite                      www.excite.com
Google                       www.google.com
HotBot                        www.hotbot.com
InfoSeek                       www.infoseek.com
LookSmart                    www.looksmart.com
Mamma                           www.mamma.com
Metacrawler               www.metacrawler.com
Northern Light        www.nlsearch.com
OneKey                           www.onekey.com
SavvySearch                www.savvysearch.com
Snap                              www.snap.com
Yahoo                           www.yahoo.com

General Procedure

1. Connect to the Internet via your browser (Netscape, MS Explorer).
2. In the browser’s location box, type the address (URL) of your search tool choice. Press Enter. The Home Page of the search tool appears on your screen.
3. Type your query in the address box at the top of the screen. Press Enter.
4. Your search request travels via the electronic backbone of the Internet to the search tool’s Web site.
5. Your query terms are matched against the index terms in the site’s database.
6. The matching references are returned to your computer by the reverse process and displayed on your screen. The references returned are called “hits” and are ranked according to how well they match your query.

Search Guidelines

1. If your subject is broad, start with a subject search such as Yahoo, LookSmart, or Encyclopedia Britannica.
2. If your subject is narrow or specific, use a keyword search such as InfoSeek, Excite, or Snap.
3. If you are not sure, try Yahoo and take advantage of its keyword option if needed. This option narrows the search to the last subject title, but in a smaller field.
4. Try a meta engine such as Savvy or Google. Meta engines produce fewer hits usually of higher relevancy.
5. Should your search involve an obscure or difficult to find topic, use a search engine having a large database such as AltaVista, HotBot, or NorthernLight.

Advanced Searching Tips

FOCUSING YOUR SEARCH

Here are some tips to focus a search that returned too many results:

1. Search for a phrase by enclosing the phrase in double quotes. Use quotes to make a phrase search out of unconnected words. A search for interior decorating returns Web pages that contain either word anywhere in the document, so you may get pages about the Department
of Interior and cake decorating. A search for “interior decorating” returns Web pages that contain both words together, which focuses your search. Another way to specify a phrase is to capitalize each word as in Internal Revenue Service. A sequence of capitalized words is treated as if they were quoted.

2. To search within one set of results for another keyword, type a | symbol between the keywords. (The | symbol is called the pipe symbol. To type the pipe symbol on most keyboards, press Shift-Backslash.) For example, dance|tango first finds Web sites that contain dance, and then finds Web sites that contain tango within the first set of results. This example finds fly fishing Web sites in northern California: “fly fishing” | “northern California”. You can also Search within your current results, look in your current results for a good keyword that will help focus your results, and use the Search Within Results option to search for your new keyword.

3. Use appropriate capitalization. Capitalize proper names if they are not already capitalized. Searching for rock hudson will give you results about the actor, rocks, and the Hudson river. Searching for Rock Hudson will narrow your search. Use mixed case words to match characters exactly as typed, such as Michael, IBM, or InfoSeek.

4. Use an AND search or a NOT search. Type a plus sign in front of a word to specifically include it, or type a minus sign to specifically exclude it. For example, if you search for “word processing” Macintosh, you may still get Web sites about non-Macintosh computers. Search for “word processing” +Macintosh to find Web pages that must contain Macintosh, or search for “word processing”+Macintosh−Windows to exclude Web pages that contain Windows. Note: Do not type a space between the plus or minus sign and the keyword or phrase. To indicate that a phrase must not appear in the results, place the minus sign outside of the phrase. For example, site:painting−“finger painting”, finds Web pages about painting but excludes finger painting sites.

5. Use Boolean operators such as AND and NOT to connect words and phrases in the query. AND requires that both terms are present somewhere within the document being sought. NOT excludes any document containing the term. When using these operators, remember to capitalize them. For example, cat AND Persian, or dog NOT chihuahua.


7. Site search. To search within a particular Web site, add the site name to your query by typing site: followed by the domain name of the site. In almost all cases, you will want to combine a site: keyword with other keywords. For example, +site:abcnews.com+South Africa, finds information within abcnews.com for pages that must contain South Africa.

8. Internet address (URL) search. Every Web page has an Internet address, which usually appears in an Address box near the top of your browser. This address (also called the URL) contains a domain name followed by folder names and a filename that indicates the location of the Web page file on a computer. Here’s an example of a URL: travel.org/northamerica/latin.html. You can search within Web page URLs to help focus your search. To search within Web page addresses, type url: followed by your search keywords. The example locates Web pages that contain travel in the URL and Mexico in the text of the Web page.
EXPANDING YOUR SEARCH

Here are some tips to expand a search that returned too few results.

1. Check for spelling **errors** and **typos** in your search text. Misspellings and typing errors can severely limit your search results.

2. Type a **comma** between proper names. When you search for more than one proper name, separate them with a comma. Otherwise, the search tries to match both names together as a single phrase, and may not return any results. For example, type **Hugh Grant, Julia Roberts** instead of **Hugh Grant Julia Roberts**.

3. Make your search less restrictive. If your search text contains a very long phrase search or too many AND keywords, there may not be any Web pages that match your query. Try removing the quotation marks and plus signs from your search text, and search again.

4. Use lowercase words. Searches are case sensitive, so capitalize words only when necessary. For example, a search for Bread returns far fewer results than searching for bread. Restrict your use of ALL CAPS to just the words that require it, such as IBM, NATO, and IRS. Check your keyboard to make sure that the **Caps Lock** key is off.

5. Search for **synonyms**. Try searching for different words that mean the same thing, like author writer novelist. When you search for proper name synonyms that are capitalized, separate each name with a comma, like this: **Macintosh, Mac, iMac**.

6. Use an **OR** search. To search for any one of the keywords that you enter, type your keywords without any special punctuation; just put spaces between each keyword. This allows for the broadest number of results.

7. **Stemming (truncation)** is the use of the stem or the main part of a word to search for variations of the word. For example, the stem “sing” searches for sings, singer, singing and singalong. Stemming can be automatic, or it may require use of a wild card symbolized by an asterick (*) to initiate. Example: **sing***

8. Use a **link search**. Links are the buttons and underlined text on Web pages that take you to other pages when you click them. To search for Web pages that contain links to a particular site or page, type **link**: followed by the address or URL of the page you are interested in. For example, **+link:abcnews.com+England** will find Web pages on the abcnews site that takes you to pages about England.

A Search Quick Reference

<table>
<thead>
<tr>
<th>Search Type</th>
<th>Example</th>
<th>Finds Web page with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phrase search</td>
<td>“computer games”</td>
<td>computer next to the word games</td>
</tr>
<tr>
<td>AND search</td>
<td>+computer games</td>
<td>computer and maybe games</td>
</tr>
<tr>
<td></td>
<td>+computer+games</td>
<td>both computer and games within each page, although not necessarily next to each other</td>
</tr>
</tbody>
</table>

Browser Searching Tips   INET001
OR search  computer games  computer or games, preferring pages with the phrase computer games

NOT search  dogs-chihuahua  dogs but not chihuahua

Case-sensitive search  InfoSeek George Bush, Texas  InfoSeek but not infoseek or INFOSEEK either proper name, preferring pages with both names

Search within  Al Gore|environment  Al Gore and within these pages, the ones that contain Environment

Title Search  title:caramel  caramel in the Web page title

Site Search  +site:espn.com+hockey  pages on the espn.com Web site that contain hockey

Internet Address (URL) Search  url:travel  travel in the Internet address (URL) of the Web page

For additional assistance, please phone the ITS Help Desk at (808) 956-8883, send e-mail to help@hawaii.edu, or fax (808) 956-2108.

Or see the ITS Helpdesk home page at www.hawaii.edu/help
The ITS Help Desk is located in Keller 105 on the UH Mānoa Campus.

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