

## Internet Searches in HYPERdrive

BY MARIE HERMAN CPS/CAP

When used effectively, the Internet is a powerful time saver in the office. But it also can backfire when your Web searches take too long. A few simple tweaks to your information requests can reduce or eliminate unproductive results--such as too many or too few answers.

First, it's important to have a basic understanding of how search engines work. For example, a search engine does not access the Internet "live" when you key in your request for information. Instead, it queries the database the search engine has previously assembled. This database may be updated every 24 hours or it may only be refreshed every 30 days (or more). If you're looking for very recent data, you're more likely to find the information you require at time-sensitive sites such as those focusing on news, finance, or sports.

Every search engine uses a unique algorithm (preprogrammed rules) to review its database and find the most appropriate responses to your queries. Search engines may check descriptions provided by Webmasters, keywords, titles, the first paragraph, the entire document, or model/SKU numbers.

Every search engine has the potential to record all of this data and more into its database, but each site also makes an individual decision on what to use as a primary search mechanism. It would be incredibly time consuming for the software to process literally billions of fields in millions of Web site records. So each search engine uses the criteria it considers most reliable for searching purposes. Those are the primary fields the search engine reviews. Your challenge is to locate the engine that searches the fields you need.

### Search Engine Math

The more specific your request, the more likely you will find the information you want. But if a search comes back with no responses (too specific), you need to broaden or reword your request. Of course, if your search returns hundreds or even thousands of results, there are several techniques you can use to focus the request. These techniques include using symbols that are known as search engine math.

If you type in *Certified Administrative Professional* as your keywords, some search engines default to searching for any of the words. This would return each page that included *Certified* or *Administrative* or *Professional*. Some search engines default to searching for all words, which will find pages that include *Certified*, *Administrative*, and *Professional*. However, they may not necessarily be together as a phrase, so these might not be related to what you're seeking. The words become one unit/phrase when placed in double quotation marks, such as: "*Certified Administrative Professional*." This simple change reduced the results on Yahoo! from 589,000 to 714 hits when this query was tested.

You can check the advanced search function of your search engine to learn if it defaults to all words or any words. There are times when you actually want results based on any word that you type, rather than requiring that all words be present on the resulting page. If you were researching meeting locations in New York, Las Vegas, or Los Angeles, you would want the pages to reference the individual cities. If you look only at pages listing all three cities, you severely limit your results. Then you could use the keyword phrases typed in this manner: "Convention Center" "New York" "Las Vegas" "Los Angeles," being sure to use double quotation marks appropriately.

To further restrict your results, you can use a plus symbol, which forces the search engine to include a particular word. If you are looking for Paris, Texas, you could type Paris +Texas. Note that there is a space before the plus symbol but no space between the plus symbol and the word that follows. This will give you all pages that include the word Paris, but only if they also include the word Texas. Using the example above, you could have added a plus symbol in front of the phrase "Convention Center." This would instruct the search engine to only show you pages that include the phrase Convention Center and any of the three cities (+ "*Convention Center*" "*New York*" "*Las Vegas*" "*Los Angeles*").

If the search engine provides many undesired results, you can exclude certain words by putting a minus symbol (hyphen) in front of the keyword. Thus Paris -France would instruct the search engine to include all results that have Paris on the page, but omit any pages that contain the word France.

You can also use these symbols in combination with each other. Using the example above, you could type +*Paris* +*Texas* -*France*.

This would instruct the search engine to include all results that have Paris on the page, but only if they include Texas and not France. You can force a phrase to be included by putting a plus symbol in front of the first double quotation mark (such as *"Paris, Texas"*).

When using these symbols, be careful not to restrict yourself right out of an answer. If you want to find a hotel anywhere in New York as long as it isn't at the airport and your keywords are *New York Hotel -Airport* you might indeed exclude the airport hotels, but you might also exclude any hotel page providing directions from the airport. That could be a sizable percentage of appropriate hotels.

The most efficient way to use search engine math is to start by asking the question you specifically want answered and then modify your request as you see what results are supplied. Most search engines are capable of processing natural language inquiries, which are questions written in everyday language. You can simply type: *"What time does the sun set in Seattle in April?"* However, you will receive more focused answers if you use the most important parts of your question as keywords: *"Sunset Time" +Seattle +April*.

## Manipulating Search Results

Now that you have all those Web sites, how do you manage them? Most search engines offer additional features to focus your results. To find out what your particular search engine offers, look for a link to Advanced Search on the site's home page. Not all search engines will support all features.

**Restrict by Date:** Allows you to either sort the results by date or restrict your results to a certain range of dates. If, for example, you're looking for information about the World Trade Center before the terrorist attacks, you can limit your search to pre-September 2001. The results from this method, however, can be unreliable because the dates provided by the Web servers may be inaccurate. Some servers automatically reflect the date of the search rather than the date the file was created or saved.

**Stemming:** Permits you to search for all forms of a word. By typing *"travel agen\*\*"* you would get results for travel agent, agents, agency or agencies with one search. Many sites support this feature with or without the asterisk. On the advanced search page of some sites, you can select an option called Word Stemming to activate this feature. Google does not support this function.

**More Like This:** Brings up Web sites or categories that the search engine recommends as relevant to one of the results. If a particular result seems ideal, this option will find similar sites for you to review.

**Related Searches:** Suggests alternate keywords you can use. For example, if you're searching for a boat, the search engine might suggest ship, cruise, yacht, or marine as other terms. Related searches will generally be shown at the very top or the bottom of the search results page.

**Search Within Results:** Restricts your revised search to the existing results, rather than performing a brand new search. This feature is most often used when reviewing categories but may appear during other searches. Usually a "radio" button or checkbox appears next to the search box where you enter your keywords. It gives you the option of doing a full search (brand new) or searching within your existing results. This may reduce your results to a more manageable amount and fine-tune your search.

**Clustering:** Reduces the total number of results by only showing the "most likely" page from any Web site, rather than returning multiple pages from the same Web site. This feature is turned on by default at many search engines. To expand the results, you can click on Ungroup Results or Show More Pages From This Site. At other sites where clustering may not be turned on, you can activate it by choosing the option closest to Show Best Page or Show One Result Per Domain Name.

## Unique Field Searching

Most search engines allow you to limit your search to certain segments of Web pages, such as the title, text, and URL (uniform resource locator, also known as the Web site address). These can be accessed either by typing the individual command in the keyword input box or by selecting the appropriate option on the advanced search page.

**Title Search:** This feature allows you to search the title of the Web pages (the words that appear in the colored bar at the very top of the window). Type *title:xyz* to have the search engine include the title words of the documents.

**Search URL:** You can use the URL command to search within the actual Web address. For example, typing *url:xyz* (or *inurl:xyz* at some sites) will bring up all Web site addresses that include the characters xyz anywhere within the address (both

<http://www.xyz.com/> and [www.abccompany.org/xyz](http://www.abccompany.org/xyz)).

**Model/SKU number searching:** Comparison- shopping sites provide price comparisons (often including tax and shipping charges) from online stores. DealTime (<http://www.dealtime.com/>) and MySimon (<http://www.mysimon.com/>) are examples of this type of site, which typically reviews model and SKU numbers, and descriptions and prices of products.

**Niche Searching:** You may find either a tab or a link matching some of the most common searches people perform on that search engine. News, finance, shopping, images, maps, and careers are examples of specialized search niches that are often performed separately from general content searches.

**Domain Search:** Searching within a domain allows you to limit your searches to particular types of sites such as .edu for educational institutions if you are researching colleges or .mil if you are seeking information about military sites. Alternatively, you can use the domain search to only look at sites from a certain country, such as .uk for the United Kingdom.

When this feature is available on the Advanced Search page, there will normally be a button or link allowing you to browse a list of all existing supported domains or country codes and choose the ones you would like searched. You can also use this function to search types of files, such as PDF documents or GIF graphics.

Many specialized search sites on the Internet are designed to only reference particular domains. For example, First- Gov (<http://www.first.gov/>) searches US Government Web sites. SearchEDU (<http://www.searchedu.com/>) tracks education and university sites. One of the most efficient ways to find these types of sites is to perform a search with the keywords "Search Engine" along with the topic you are seeking, for example +"Search Engine" +Genealogy.

## Language Support

The Internet is a worldwide resource with increasing numbers of users who speak a non-English language. Although the support for multiple languages is improving, is not yet thorough enough to rely on blindly. There are three methods of searching non-English Web sites: 1) translation, 2) advanced search function, and 3) country specific search engines.

Alta Vista provides a link called Translate after most search results. Clicking on this link brings up a window where you can either enter a paragraph of text for translation or choose to have the entire Web site translated from its existing language to an alternate language. Many other sites, such as Babel Fish (<http://www.babelfish.com/>), specialize in translation services. Usually translation services contain a disclaimer stating the resulting text may differ significantly from the source text.

Most search pages support searching Web sites in multiple languages. You can select the particular language you need from the available list on the advanced search page. This does not restrict your search results to only pages in that language (as some sites may have more than one language on a page), but it increases your chances of finding the language you need.

Finally, most of the major search engines have country-specific search sites. For example, Yahoo! and AltaVista maintain directories in more than 25 countries. Lycos maintains directories in more than 40 countries, with especially strong support for Spanish-speaking countries.

## Internet Consolidation

Several companies permit other companies to access their databases. For example, you can search Google directly at <http://www.google.com/>, but its technology is also used by Yahoo!, HotBot, AOL Search, InfoSpace, Earthlink, and other search engines to augment the searches those sites perform. Inktomi, another behind-the-scenes resource, provides Web-searching services used by About.com, HotBot, LookSmart, MSN, Overture, and others. In some cases, search engines may use more than one outside technology.

In addition, there has been active consolidation and partnership between Internet search engines during the past few years. For example, Ask Jeeves owns Teoma (formerly DirectHit). Terra Lycos owns Lycos, Hotbot, and Excite. Lycos has partnered with Ask Jeeves and Overture to provide listings to Lycos visitors. Yahoo! announced plans in December 2002 to purchase Inktomi and owns a small portion of Google.

The bottom line? You may visit five different search engines and get almost identical results if you don't realize that they are all searching using technology from the same company.

## Tap the Resources

You can learn more about effectively using search engines by visiting Search Engine Watch (<http://www.searchenginewatch.com/>) or Search Engine Showdown (<http://www.searchengineshowdown.com/>). These two sites provide articles and charts that can answer many questions.

Most search engines also incorporate Help features to explain the advanced searching options they support. Help will explain site-specific searching techniques and may also indicate which partner resources are being accessed when you search.

The Internet is a useful and powerful resource, but if you don't utilize the tools at your disposal, it can be overwhelming. These simple techniques can greatly reduce the amount of time it takes you to get the answers you need and give you an opportunity to shine.

Marie Herman CPS/CAP, CIWD is an administrative professional at Packer Engineering (<http://www.packereng.com/>) a multi-disciplinary engineering firm in Oswego IL. Herman also operates MRH Enterprises (<http://www.mrhenterprises.com/>), offering computer and cooking classes, articles, workshops, and other speaking engagements. Reach her at [advertising@mrhenterprises.com](mailto:advertising@mrhenterprises.com). This article should not be considered a comprehensive listing of search engines.

### Some Popular Search Engines

AllTheWeb	<a href="http://www.alltheweb.com/">http://www.alltheweb.com/</a>
AltaVista	<a href="http://www.altavista.com/">http://www.altavista.com/</a>
Google	<a href="http://www.google.com/">http://www.google.com/</a>
Hotbot	<a href="http://www.hotbot.com/">http://www.hotbot.com/</a>
Lycos	<a href="http://www.lycos.com/">http://www.lycos.com/</a>
MSN Search	<a href="http://www.msn.com/">http://www.msn.com/</a>
must run a search before advanced search option appears) Yahoo!	<a href="http://www.yahoo.com/">http://www.yahoo.com/</a>

### Supported Features

Type of Search	Sites Offering the Capability
Restrict By Date	AllTheWeb, AltaVista, Google, HotBot, MSN, Yahoo!
Stemming	AltaVista, MSN
More Like This	AltaVista, Google, Yahoo!
Related Searches	AllTheWeb, AltaVista, Google, HotBot, MSN, Yahoo!
Search Within Results	Google, Yahoo!
Clustering	AllTheWeb, AltaVista, Google, HotBot, MSN
Translation	AltaVista, BabelFish
Title Search	AltaVista, Google, HotBot, Yahoo!
URL Search	AllTheWeb, AltaVista, Google, HotBot, Yahoo!
Niche Searching	AllTheWeb, AltaVista, Google, HotBot, Yahoo!
Domain Search	AllTheWeb, AltaVista, Google, HotBot, MSN, Yahoo!
Alternate File Types	AllTheWeb, Google, HotBot, MSN (PDF, Images, Audio, etc.)

Offensive Content Filter	AllTheWeb, AltaVista, Google, HotBot MSN, and AOL.
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## Types of Web Resources

Portals:	Mega-sites such as Yahoo!, MSN, and AOL. They function as an entry point to the Internet. While search and navigation are the basis for their existence, portals offer a wide range of customization options and functionality, including e-mail; news, weather, sports, horoscopes; planners, calendars, and contact managers; real-time chat; message boards; original content; and shopping.
Directories:	Snap, Lycos, MSN Search, Netscape Search, and Yahoo! depend on humans for listings. Webmasters submit a description to the directory for their entire site. Editors list sites by category. A search engine looks for matches only in the descriptions submitted.
Search Engines:	HotBot and other search engines create their listings automatically from scripts that search the Web.
Hybrid Search Engines:	These search engines maintain an associated directory.
All-In-One/MetaSearch Engines:	These sites--such as Excite--allow you to type in one phrase and search multiple search engines simultaneously.
Industry-Specific Directories:	Also known as vertical portals, these are aimed as a one-stop site for particular industries (i.e., building trades, health care, financial services, etc.).
Comparison Shopping:	Enter a SKU number or model number and these sites will search multiple online stores and provide a grid of prices/options.