

In the following sections, we offer some advice about resources that we have found helpful in our own current and best practices research. The lists are far from exhaustive, but they do reflect resources that we have actually used and would use again.

### Efficient Internet Search Engines

Using a search engine consists of entering keywords that are run against a database. As search engine databases vary in size, frequency of updates and search capabilities, using different engines can lead to results that vary considerably. The following sites are search engines that have very large databases and search capabilities and are most efficient in retrieving relevant and unique hits.

Northern Light: <http://www.northernlight.com>

Northern Light is both a free search engine and a fee database. In addition to searching the Web, it offers access to its special collection of more than 4,500 full text articles online for a minimum fee (usually \$1). Northern Light is also very efficient in searching the Web and retrieving relevant results especially if you have a rather complex query. Moreover, it organizes the results of your search in folders according to type of documents, subject or sources.

Alta Vista: <http://www.altavista.com>

Alta Vista provides good returns due to its intricate searching capabilities and large database. It is efficient for complex or specific searches. Also, it is one of the few Web sites that provides hits from newsgroup discussions that can be very useful to best or current practice research. You can select to only search these newsgroups' discussions or messages.

Yahoo: <http://www.yahoo.com>

Yahoo has a collection of more than 500,000 sites pre-classified into more than 25,000 categories. It is a directory and not a search engine. Therefore it is very efficient for general or common searches. However, for more specific terms, Alta Vista or Northern Light are better.

Google: <http://www.google.com>

Google is a very comprehensive search engine; it ranks hits by the number of incoming links and the popularity of the sites. It is very efficient for searches with more than one word. It also features a special search engine solely for U.S. government documents; you can access **Uncle Sam** by typing: [www.google.com/unclesam](http://www.google.com/unclesam).

Hotbot: <http://www.hotbot.com>

Hotbot has unique and very user-friendly advanced search capabilities. You can filter your search by language, date (pages published within 2 weeks or 2 years), domain (retrieve only pages with a .com, .gov, or .edu domain), region (only U.S. pages for example), or you can filter out a particular word (should contain the word ... and not the word ...). Also you can type a url in the search box and click on "Look for links to this url" (box on the left) and Hotbot will retrieve for you all the Web pages that have a link to the url you typed.

### MetaSearch Engines

Each individual search engine covers only about 4 to 20 percent of the Web. MetaSearch engines can provide more extensive coverage by searching simultaneously in several of the largest search engines' databases. MetaSearch engines are useful for a quick overview on what is available on the Web on a particular subject. The following are addresses of some efficient multi-threaded search engines:

Debriefing: <http://www.debriefing.com>

Searches for your query in Alta Vista, Excite, HotBot, Infoseek, Lycos, WebCrawler, and Yahoo. It then ranks the results by relevance indicating which search engine retrieved them. Debriefing also eliminates duplicate results

from different search engines.

Dogpile: <http://www.dogpile.com>

Looks for results in 25 search engines, then displays them by search engines, from most specific to most general result.

Profusion: <http://www.profusion.com>

Uses up to nine search engines and allows you to select the ones you want to be searched.

Ask Jeeves: <http://www.askjeeves.com>

You can type a question and Jeeves will try to provide you the answer by looking in several search engines. It will group the results by engine as well as by the sites who seem to provide answers closer to your question.

## Specialized Subject Search Engines

These search engines act as clearinghouses on a wide array of specific subjects. They usually consist of guides compiled by subject experts on relevant resources to particular topics. The following are some of the clearinghouses that can help you retrieve relevant information:

The Argus Clearinghouse: <http://www.clearinghouse.net>

The Argus Clearinghouse features 13 main categories, such as information technology, education, government and law, social science, etc., divided in sub-categories that lead you to information related to particular topics.

The WWW Virtual Library: <http://www.vlib.org>

The WWW Virtual Library is also organized by subjects. The information provided on a particular topic includes bibliographies, Web sites, listservs, and research papers.

## Tips for an Efficient Search

The results you get from a search on the Web are only as good as your query. By using the following tips to write a query, you may get more targeted and useful results:

### Quotation Marks

If you are looking for an exact phrase or group of words such as *American Marketing Association* for example, make sure to use quotation marks: "American Marketing Association." Otherwise, the engine will search every word separately.

### AND

Use AND (uppercase) when you want to make sure your results contain two terms. If you use AND in your query, the search engine will retrieve only documents that contain both words.

### OR

Search your subject with different synonyms to maximize your chances of getting results. Using OR (uppercase) will allow you to enter several synonyms for the search engine to look at as it will retrieve either of the words you typed.

### +Sign

Some search engines will ignore and not search short words included in a query such as: *in, of, a, out, with*. Using the plus sign will ensure that all words are searched for. For example if your search is: *Women in Government*, make sure to type: *+women +in +government*.

### **-Sign**

Use the minus sign if you want to make sure your results do not contain a certain word. For example, if you are looking for information on *Marketing Strategy* but do not want to get results from consulting companies, you can type: *+Marketing +Strategy-Consulting*

### **\*Sign**

You can use the star sign to truncate a word. For example, if you are looking for *Marketing consultants* or *Marketing consulting companies*, you can type: *+marketing +consult\** and the search engine will retrieve results with any word starting with *consult*.

### **Combination**

You can use a combination of signs or words to do your search by putting terms in parenthesis. For example, you can type (American or U.S.) AND presidency.