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Search Smart: Locating and Evaluating the Best of the Web

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Introduction

Searching the Internet has become an almost required part of daily operations. When you are trying to retrieve information needed to conduct business or assist a client, you want to find the best results with the least amount of time spent. With billions of web pages out there, it can be a challenge to find the information you need. This paper gives you tips on how can you hone your search skills to locate highly relevant results and to evaluate what you find.

Information Seeking on the Internet

So, you need to find out some information – and you wisely turn to the Internet as tool for locating that information. The Internet is a cost-effective, content rich collection of resources that can provide you with facts relevant to many legal issues. It is usually a good place to start looking for information, although keep in mind that it is not always the easiest place to locate information. Sometimes the best place to begin looking is a fee based legal database, such as Lexis or Westlaw, or even a book you pull off your own bookshelf. Before you begin searching, ask yourself the following questions:

- What kind of information do you need?
- What kind of sources might have that information?
- What are the chances of finding those sources on the Internet?

You can use the Internet when searching for any type of information, but some information you are going to have an easier time locating than others. If the
information you are looking for fits into any of the below descriptions, then the Internet is definitely a good tool for you to be using.

**When to Use the Internet for Research**

- You need a *targeted search*, rather than a comprehensive search.
- You want both “official” and “unofficial” *information*, such as opinions, rumors, various accounts about a person, company, or event.
- You are looking for *local or regional information*.
- You are searching for *up-to-the-minute information*, such as news, weather, scores, exchange rates, stock quotes, etc.
- You are looking for information produced or gathered by a *government* entity, such as agency reports, public records, or statutes.
- You need information created by a *group or organization* that they commonly distribute, such as brochures, newsletters, conference papers.

Unless you know of a specific resource or web site that would most likely contain the information you are looking for, the smart place to start your search is with a general search engine.

**Our Friend, the Search Engine**

Knowing a few basic things about search engines can help you to be a smarter searcher. First, – while it seems obvious – it is good to remind yourself that not all information is on the Internet. So much information is available on the Internet, but
not necessarily the exact information you are looking for. There has to have been some reason or purpose for a certain piece of information to have been posted to the Internet to begin with in order for you to find it later. This is especially true when looking for information about people or events.

Second, even if the information is available on the Internet, you may not be able to find it using a search engine. Search engines are actually databases of indexed web content covering only portions of the Internet. There are parts of the Internet that search engines cannot index for various reasons, commonly because the information contained at a particular web site can only be accessed by querying a database – otherwise the information does not exist in a format that a search engine could gather. This type of information is what makes up what is known as ‘the invisible web.’

There are a number of search engines available for your use on the Internet, each with their strengths and weaknesses, and each covering different web sites. From time-to-time a search engine will start to get some buzz over some new search feature, but for the most part what matters most to people looking for information is familiarity and size. It is in those two departments that the three primary search engines used today, Google, Yahoo!, and MSN’s Live.com dominate the field. A couple of other search engines, Ask.com and Exalead, may be worth using when you are trying to be as comprehensive as possible, or are needing search tools not found in the larger search engines.

**Google**  <www.google.com>

*Google* is the top search engine choice for searching the Internet – in fact ‘to
“I googled him, but didn’t find anything.” Google has long been a favorite search engine because of its size and the breadth of file types that it indexes. It revolutionized Internet searching with its relevance ranking of results based on those sites’ linkages and presumed authority. Google offers many additional specialized databases that you can search, such as Groups, News, Images, Video, Maps, Froogle (shopping directory), Blogs, Books, Patents, and Google Scholar. One of the weaknesses of Google is that while it covers a lot of the web, it does not necessarily cover it deeply. Google only indexes about the first 100-120 KB of a file, so if the information you are looking for is at the end of a really long or graphic rich document, it might not get put into the Google search index database. There are also some weaknesses in the ability to refine your search such as using complex nested search strings, but this is a weakness with all large search engines.

Yahoo! <search.yahoo.com>

Yahoo! introduced its own unique and sizable search index database in February 2004. You can access it on the Yahoo! homepage or go to the specific search engine address. One of the benefits of using the Yahoo! search engine is convenience for people using Yahoo! as their homepage because they are making use of other services such as Yahoo! Mail. It also contains links to the Yahoo! Directory, which are collections of links that arranged into useful subject areas by humans instead of machines, in addition to specialized search databases such as Images, Video, Local, Shopping, Audio, Answers, Jobs, and News. Yahoo! does offer more powerful Boolean search capabilities and indexes more of a file (500 KB) than Google. Often your top hits will be the same in
Google and Yahoo!, but usually you will see some differences in the top 10 to 20 results, making it a must to search both when trying to be comprehensive.

**Live Search <www.live.com>**

MSN completely overhauled their search index database and re-launched it under the popularly used name Live.com in September 2006. It is contains more unique and fresher information than you might find in Google or Yahoo! because of this recent overhaul. Live.com supports many additional databases such as News, Images, QnA, Video, Local, Feeds, and Academic. It also has an automated local search option, Boolean searching, and an easy to adjust three point relevancy scale. Live.com also has a site-clustering feature, so it defaults to showing no more than two hits per web site, which can be helpful if you want to scan several options, but can also limit you from seeing a direct link that might be the most relevant for you. Unfortunately, you can only access the advanced search options after you have run an initial search.

**Ask.com <www.ask.com>**

*Ask.com* has been around for several years, originally envisioned as a natural language question/answer site (“Why is the sky blue?” “How tall is Mt. Everest?”). Ask.com has a much smaller search index database than Google, Yahoo!, or Live.com. Its strengths lie in its ability to identify metasites for a topic you are interested in and its site-clustering of results. Another special feature of *Ask.com* comes from its question/answer tradition. On top of the search results are ‘shortcuts’ that give direct answers to many popular search queries. Noting the usefulness and popularity of
getting direct answers, Google, Yahoo! and Live.com have each started “answers/Q&A” databases that you can search separately.

**Exalead** <www.exalead.com>

A very small search index database, Exalead has gotten the attention of people needing to do very precise searches, because it offers true proximity searching among other specialized search features. Released in October 2006, the current Exalead search engine includes a handy ‘Refine Your Search’ box on the right side of the results page. There are also helpful thumbnail images of each of the web sites in the results list. Even so, the limited size of the search index database is a major drawback – although with some information search needs, less can be more.

Now that we have reviewed where to go when you need to do a search, it is time to focus on the specifics of how to improve your search strategies to make you a smart searcher.

**Tips for Smart Searching**

The following are tips to follow if you want to learn how to search smart – saving you time and finding better results. Many of these tips can be used with any search engine, although examples are going to focus primarily on Google, Yahoo! and Live.com, since these are the most commonly used search engines.

1. **Revise Your Search Sooner, Rather Than Later**

2. **Utilize the Advanced Search Options of a Search Engine**
3. Look for Resources, Rather Than Just Facts
4. Search More Than One Search Engine
5. Search a Subject Specific Search Engine
7. Keep your Original Search Results List Open
8. Read the Search Engine “Tips” Page

Below are more details on how to make each of these smart searching tips part of your own improved search strategies.

**Tip 1. Revise Your Search Sooner, Rather Than Later**

When you find that the first few hits of your search are irrelevant, or are not what you are looking for – **immediately revise your search**. It is tempting to keep paging through screens of results, but since search engine algorithms put the most relevant results first, if you do not have helpful results in the first 10 results, you should try your search again. It will take much less time to change your search, than it will to keep paging through irrelevant results on the outside chance that you will find something on target down on the results 181-190 page. Adding an additional word to the search or changing a word to a synonym can often make a huge difference in the relevance of your returned results list.

**Tip 2. Utilize the Advanced Search Options of a Search Engine**

The secret that all smart searchers know is that using “advanced” search options
make searching **easier** and your results **more relevant**. All search engines offer similar advanced search options, often with a link to ‘Advanced Search’ on their main search page, but you can also access advanced search options after you run a basic search in all three of the major search engines. For example in *Google*, look for a link to ‘Search within Results’ at the bottom of the search results page or use the ‘Advanced Search’ link at the top of the page. It is simple to learn these advanced search options and to begin applying them to your searching right away. **Using advanced search options is the single most important thing you can do to improve your search results.** Below are listed just some of the advanced search options available and a brief discussion of how they will refine your search.

**Search Terms/Show/Find Results**

In a basic search, the search engine just looks for web sites containing all of the words you have entered in the search box, and in no particular order. A powerful feature of advanced search options is that it allows you to tell the search engine how to look for your search terms. You can also use any/all of these fields together to craft a very effective search strategy.

- **with all the words** – The limit ‘with all of the words’ works just like the basic search, looking for all of the words listed in no particular order.

- **with the exact phrase** – The limit ‘with the exact phrase’ tells the search engine to look for these particular words next to one another just as you have listed them. This feature is the same as enclosing search terms in quotation marks.
• **with at least one of the words/any of these words** – The limit ‘with at least one of the words/any of these words’ allows you to list several search terms, but tells the search engine that you are interested in web sites that include even one of the words listed. This feature allows you to return a wider set of results than you would have gotten from running just a basic search.

• **without the words/none of the words** – The limit ‘without the words/none of the words’ is a powerful way to eliminate results that you know you do not want. The classic example of this came is the early days of search engines during the 1996 presidential campaign, when searching for ‘Dole’ you would want to also limit your results using ‘without the words/none of the words’ to not include the word ‘pineapple.’ It is good to use this limit when you have run a search already, but find that you have retrieved a significant number of results that are on a specific topic that is distinctly unrelated to your subject.

**Occurrences**

Selected with a dropdown menu, you can use ‘Occurrences’ to return results where the search terms only occur in specific fields of the web page, such as ‘anywhere on the page,’ ‘in the title of the page,’ or ‘in the URL of the page.’ By limiting your search terms to being located in the source title of the web site, it should improve your relevancy and decrease the number of results returned.

**Date/Updated**

Also selected from a dropdown menu, the ‘Date’ or ‘Updated’ field allows you to
limit your results to web pages updated ‘anytime,’ ‘past 3 months,’ ‘past 6 months,’ or ‘past year.’

**Site/Domain**

The ‘Site/Domain’ field works slightly differently in each of the 3 major search engines, but it essentially allows you to limit your search to a particular type of web domain, such as .com, .edu, .org, .gov, etc. or to a particular web address, such as uga.edu or georgia.gov. *Google* and *Live.com* both have the additional feature that you can instead search everything except a specific domain or web address, so you could eliminate college web sites from your returned results by excluding the domain type .edu.

**File Format**

Both *Google* and *Yahoo!* allow you to limit you results to a specific file format. From a dropdown menu you can choose a particular type of file you are looking for. This feature is helpful if you would like to locate information in a specific kind of form, such as limiting the file format to .ppt, so your results will only contain PowerPoint presentations. *Google* once again also allows for the exclusion of particular file formats as well.

**Country/Region**

You can limit your search results by country of origin in both *Yahoo!* and *Live.com*. You can only select one country at a time from a dropdown menu, but it can
be helpful if you are looking specifically for a company, organization, or person from a particular country.

**Language**

All three of the major general search engines allow you to limit using a ‘Language’ field. Only Yahoo! allows you to limit your selection to more than one language, using check boxes instead of a dropdown menu. If English is your native/only language you are fluent in, then it is often good to limit your search to English, especially if you are researching a foreign or international topic and you want to narrow your results returned.

**Results Ranking**

Only Live.com makes the field ‘Results Ranking’ available in its advance search options, but it can be a powerful tool for manipulating your results returned in a search. The ‘Results Ranking’ option allows you to use slide bars to weight three factors used in producing the results list: Updated Recently/Static, Very Popular/Less Popular, Approximate Match/Exact Match.

**Tip 3. Look for Resources, Rather Than Just Facts**

Sometimes the smarter way to begin your search is not to look for the specific piece of information you need, but instead to look for a web resource that would be likely to contain the information you are seeking. Use search engines to conduct
searches for databases and other searchable resources on the Internet. This search method is one way to uncover and make use of the so-called invisible web – Internet resources that cannot be indexed separately by a search engine. For example, if you want to find out what the currency exchange rate was for Canadian dollars to US dollars on February 22, 2000, just putting in ‘currency rates Canadian dollar February 22, 2000’ will not return an exact answer. The more efficient way to access this information is rather than putting in the exact date, to insert instead the words ‘historical’ and ‘database.’ Using the search terms ‘currency rates Canadian dollar historical database’ you get several historical currency databases as the top choices. You then look at one or two of those, inputting the date you are interested in, and you will have the answer you are looking for. The trick is to add the term ‘database’ to your search terms in order to locate of these types of web resources.

**Tip 4. Search More Than One Search Engine**

Especially if you are trying to do a somewhat comprehensive search or if you are failing to uncover as many results as you would like to find, re-running your search in at least one or two other search engines may uncover additional results not found in your original search. For example, when you run the search “Erik Moore” archives in Google and in Live.com then review the first 20 results in each search engine, you will find that there are only 6 web pages that appear on both lists. So, by conducting that additional search in Live.com you added 14 more unique results to look through. With this particular search you will also find that the second search in Live.com happened to offer more relevant search results, as the specific ‘Erik Moore’ being searched made up only 9
out of the top 20 Google results, but 15 out of the top 20 Live.com results. You cannot predict which general search engine will offer you more relevant results on any given search, which is why it is good to remember to search more than one place.

**Tip 5. Search a Subject Specific Search Engine**

Think about if there is a subject specific search engine or web resource you know of to begin your search at rather than a general search engine. Using a subject specific search engine or a web resource that is on point with your topic will help to limit and refine your results from the very beginning of your query. For example, if you are looking for information that would primarily be on web sites with a legal subject matter, then start with Findlaw’s LawCrawler <lawcrawler.findlaw.com>, a search engine that limits its scope to legal related web sites. Or if you are looking for information from a Federal government agency or department, then start your search at USA.gov <www.usa.gov> which is the Federal government’s search engine and portal.

**Tip 6. Make Use of Free Add-On Tools Available from a Search Engine**

Utilize tools search engines freely provide, such as downloadable browser toolbars and emailed web update alert notices, to increase the integration of searching into your desktop environment. If searching and reviewing results is convenient to use, then you will be more likely to conduct searches whenever you have a question. Toolbars, such as Google Toolbar or Yahoo! Toolbar, which you can download and place in your browser, save you the step of going to the search engine web site. They also have
handy features like the ability to highlight your search terms in your results and shortcut buttons to search other favorite sites like Amazon or CNN.com. Another useful tool that search engines offer is the ability to set up regular searches that you want to run and have the results sent to you in the form of an email alert. Using alerts is an excellent way to keep up on a developing news story or to monitor information about a company or person. Both Yahoo! and Google offer alert services, but you need to set up a free account first, although Google Alerts will at least let you set up the alerts without an account, but you will still need an account to edit your alerts.

**Tip 7. Keep your Original Search Results List Open**

This tip seems rather basic, but it can be a big timesaver when you are reviewing results you have located with a search. When you review your results list, if you open the links to the individual results in separate browser windows or tabs, then you can readily refer back to the original results list. This way you can navigate quickly back to your results list and easily compare the individual web sites that you have found to each other.

**Tip 8. Read the Search Engine “Tips” Page**

All search engines have some sort of “tips” or help pages. Sometimes they have even formatted them as a printable guide. Taking a few minutes to review search modifiers and syntax, will improve your search strategy not only for that search, but will improve your searching thereafter. In Google from the main search page click on ‘About’
Google’ and then select either the section called ‘Help’ or ‘Google Web Search Features,’ and you will find easy to navigate and understand guides for every feature available on Google. Yahoo! makes it a little more of a challenge to find tips, but if you are on the specialized Yahoo! Search page, then you can just click on ‘Search Services.’ The ‘Search Services’ also appears in a dropdown box under ‘More’ near the search box on the Yahoo! home page. Live.com on its home page has a link called ‘Help’ which contains much useful information, although, not surprisingly since it is a Microsoft product, the help tips pop up in a separate window and have a similar look and feel to help screens in software programs.

**Evaluating the Results**

As soon as a list of search results appears in a search engine, you naturally begin evaluating those results for relevance to your information needs. Evaluating search results is similar to how you evaluate print resources, except that evaluating print resources is easier because there are fewer sources/resources to review. The Internet is made up of information from a wide variety of producers with very little traditional fact checking. You must stay alert to differences, inaccuracies, and even misinformation. As a smart searcher, it is your responsibility to assess the reliability of the information you find on the Internet.

When you are looking at search results, especially results from a source or web site that is unfamiliar to you, ask yourself the following questions:

- **Who is producing this web site?**
• How current is the information?

• What is the quality of the content?

These three questions address the three primary areas you need to think about when evaluating a web resource: Authority, Currency, and Accuracy.

Authority

You want any web site that you use to be credible and reliable. The first thing you need to do when looking at a web site is to try to determine who is the source of ownership of the web site and who provides the authorship for the information found on the web site. Review the web pages themselves for information, especially “About Us,” “Site Info,” or “Contact Us” sections can be helpful. Run the web address, known as the domain name, through one or more domain registries sites, such as Allwhois <www.allwhois.com> or Domain Tools <www.domaintools.com>, to help you determine who is the owner of the web site. You can also get sometimes a sense of a web site’s credibility and believability by the company it keeps – look to see which web sites link to the web site you are evaluating. You can accomplish this under the advance search options of any of the three major search engines. In Google for example on the advance search page there is a ‘Links’ field in which you can input a web address and find out who links to it. Finally, check an individual’s or an organization’s credentials through an independent search to verify they are who they say they are and to get an impression of others’ opinions concerning their credibility and authority on the topic at hand.
Currency

One of the great strengths of the Internet is the availability of timely information, sometimes as fast as in real time. However, it falls to you the user of that information to look for clues to determine how current information on a web site is. A good place to start is to look for a statement about the currentness of the entire web site, such as a copyright statement or a last revised date. Keep an eye out for when specific information or articles on a web site were last updated as well, a web site may have a copyright date of 1999-2007, but the specific article on securities law that you found on that site may have been written in 2001 – and you need something with more current information.

Of course, older information can sometimes be exactly what you are looking for, such as a contemporary newspaper article about an event in 2002 or an example of how a website looked in the past, but you will still need to evaluate the web site to determine the date when the information on the web site was last updated. Of course, finding older newspaper articles is usually fairly easy on the Internet, but you may have more difficulty locating previous versions of a current web site. All three of the major search engines offer the ability to view and search cached pages of web sites, which is how the web site looked when the search engine indexed it. There is a specialized search engine you should utilize when looking for examples of previous versions of web sites, the Internet Archive <www.archive.org>, popularly known as ‘The WayBackMachine.’ Going back to 1996, the Internet Archive allows you to input a web address and see if there are previous examples of the web site available for viewing.

It is important to ascertain the currency of any web site you visit, even if the
timeliness of the information is not your primary concern. Because of the fluid nature of
the Internet, it is always vital to record the date on which you review information from a
web site and to include the date reviewed whenever citing to information from that web
site. While it seems counter-intuitive to the paperless society of the Internet, the best
way to document your information retrieving visit to a web site is to print out a page of
that web site, since most browsers will place the day and time visited automatically on
the printed page. This method can be very helpful, especially when you are working on a
project over a long period-of-time and need to be able to retrace your information
sources.

Accuracy

Accuracy addresses the overall quality and completeness of a web site. Think
about the purpose of the web site – is it providing facts/figures, trying to
persuade/inform you of a point of view, or is it trying to promote a product/service?
Evaluate the objectivity of the web site. Just because a web site is taking a position on a
certain topic, does not necessarily mean that the information is invalid, but stay aware
of partiality. You also have to stay alert to what is not being stated on a web site, such as
a hidden agenda or purposeful misinformation.

You should also look for signs that information on a web site was assembled
sloppily or is maintained poorly. Watch out for misspellings and grammatical errors, for
example. Factual errors, omissions in documents, and lack of depth of content are also
reasons to question a web site’s accuracy. Test the links on the web site to see if they are
still active and relevant. Verify information from web sites, especially information with
which you have no background or experience, to at least one other web site or credible source of information.

**Conclusion**

The amount of information on the Internet can make it seem nearly impossible to locate quickly a relevant web site to meet your research needs. Effective use of general search engines eases many of the problems associated with searching the Internet and increases your confidence that you are locating the information that you need. Incorporating many of the search tips discussed will definitely make your searching for information on the Internet more successful. When it comes to evaluating the results of your search, remember to use your critical judgment to assess the authority, currency, and accuracy of the web sites you uncover. You are ready to search smart!

**Sources for Further Learning**

The sources listed below provide expanded information on the topics discussed in this paper and will be useful for further learning or reference.


Designed for practicing lawyers, the 3rd edition of this book was just published in late 2006 and offers a lot of advice on searching strategies as well as detailed coverage of preferred web sites covering a range of subject research areas.
The Virtual Chase <www.virtualchase.com>

Designed with experienced researchers, lawyers, and other legal professionals in mind, the purpose of The Virtual Chase is to inform about websites and research strategies for finding the law. The website offers 'Internet Research' guides, tips on evaluating Internet sources, and current research news with a RSS feed alert service.

LLRX <www.llrx.com>

LLRX.com is a free Web journal dedicated to providing legal, library, IT/IS, marketing and administrative professionals with up-to-date information on a wide range of Internet research and technology-related issues, applications, resources and tools, since 1996. This legal web journal provides legal columns, feature articles, topical research guides, and legal-tech and library related news resources. The research guides on a number of legal topics and jurisdictions are particularly helpful, including an article on web site evaluation by site founder Sabrina Pacifici called “Getting It Right: Verifying Sources on the Net” <www.llrx.com/features/verifying.htm>.

Search Engine Showdown <www.searchengineshowdown.com>

Search Engine Showdown, developed by librarian Greg Notess in 1999, has long been a respected source for information about search engines. The site monitors and compares search engines, including helpful reviews of individual search engines. While not as up-to-date as it once was, the site still has a lot of useful information about search engines and their histories/ownership.
<digitalcommons.law.uga.edu/speeches/2/>

This is a CLE paper presented in March 2006 by Elizabeth Geesey Holmes, a University of Georgia law librarian. The listed link also provides access to the PowerPoint slides from that presentation.