

Basics Lesson Six - Conducting Internet Searches

How do you start? You should consider:

- What are you really searching for?
 - Do you want broad information, or information about a popular subject?
 - If so, using a site with Internet Directories (category terms are offered) may be best.
 - Are you looking for something very specific, or unusual (or perhaps a unique term or phrase)?
 - Using a Search Engine will prove to be the most useful.
 - Are you looking for a narrow aspect of a topic with a huge Web presence (lots of sites may appear on a search)?
 - Search engines used to offer "search within results", allowing you to add terms to narrow your search. Searching within its own results is no longer offered as a link. Just add the terms (or use the minus sign) to accomplish the exact same thing.
- Types of search tools currently available (see explanation of tools below)
 - see comparison tables at:
 - <http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/SearchEngines.html>
 - <http://www.infopeople.org/search/chart.html>
- Explanation of the three main search tools
 1. Search Engines
 - Web pages are reviewed and indexed by "robots", or "spiders".
 - Reviews are automated (done by a computer program), and are based solely upon words included on the web page. These search require no human involvement. They also make no judgment as to the relativity of content, just that it contains all the requested words.
 - These robots search web page titles and text **throughout the Internet** for **any** listed words, regardless of context.
 - Pages are "ranked" (sorted order within which hits appear) based upon how many times (and number of times) listed words are mentioned
 - and also number of other pages which link to it
 - Because of the expansive search capabilities by program rather than the time-consuming human actions, Search Engines perform more specific searches, and quickly.
 - The "hits" usually include a line or two of the full text from the web page being "linked to".
 - You may wish to search for "specialized" search engines dedicated to specific fields of interest.
 - "Google" (because Google was one of the first search engines used for this purpose a common-use verb is "google", meaning to search for; this is similar to use of the term "make a xerox copy" rather than using the term photocopy this document) for such specialized search engines.

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- Explanation of the three main search tools (cont'd)
 2. Subject directories are a good place to start if you don't know what terms to use
 - Web Pages linked to from Directories, because of the need for grouping by category, require review by humans in order to place the pages within the correct Category.
 - These web pages are sorted into subjects (topics).
 - They represent broader topic searches (like Medicine, Computer Technology, etc.)
 - Linking to sub topics, that link to even further sub topics.
 - Because only subject/topic titles are listed, they never include any text, since the subject links represent groups of pages, not individual web pages.
 - Once the general topic has been discerned, use any of those directory terms in a standard search engine along with other terms for streamlined focus on some individual or isolated information.
 3. Searchable database
 - Certain search sites search only within their own databases
 - These pages are not usually found by general search engines, and rarely by directories
 - Look at specific sites, such as the UCB Library Catalog [Pathfinder](#)
 - Use a general search engine to search for a specific "database"
- Metacrawlers, otherwise called Meta (or Mega) Search Engines are Sites which do not specifically have robots of their own, but instead provide (combine) searches conducted by multiple different search engines at one time, (you can choose which engines some of the newer ones use by using Advanced option).
 - Meta-search engines are not as effective as learning a few good search techniques within a specific search engine.
 - Popular ones
 - <http://www.dogpile.com>
 - <http://www.webcrawler.com>
 - <http://www.mamma.com>

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Methods of Entering Search Terms

Remember not all search engines recognize each of these below.

Type **Words**, or use **Phrases** (often enclosed within quotation marks “ ”)

- Enter important descriptive words only. Exclude use of overly common words such as “**a**”, “**of**” “**or**” “**to**”, etc. unless part of a phrase.
 - Example: **golf courses naples florida**, is preferable to **golf course in naples florida**
- Using quotation marks to denote phrases, or a series of terms you are sure will be together can “refine” (focus) the search.
 - When the specific order of Words is important, or when it is a Phrase
 - On most search engines rarely does capitalized words in quotes yield different results than small case letters.
 - But you can try it if unsatisfied with the initial results.
 - Google as example is **not** case sensitive.
 - Compare the results of the use of capitals in any search engine by opening two instances Internet Explorer (or your browser of choice) and entering the same web address (search engine web site, such as www.google.com).
 - Open additional instances of Internet Explorer by right-clicking the big blue E on the Taskbar and choosing Internet Explorer, each time opening a second, or third, or fourth instance of the browser.
 - Similarly, this works with other Taskbar icons as well.
 - Enter terms using caps in one, and without in the other.
- Using quotations
 - cats and dogs
 - “cats and dogs”
 - Try “**to be or not to be**” or **to be or not to be** without the quotes.
 - Most are now smart enough to adjust their searches

Be aware of Boolean Terms.

- The terms are: **AND** (includes both), **OR** (includes either), **NOT** (excludes), **NEAR** (see below).
Examples: **cats AND dogs** or **cats NOT dogs**
- Be aware that most search engines assume AND search by default (such as Google).
- Most search engines recognize some Boolean terms, but not all terms.
 - Most (Google, Yahoo, AltaVista) recognize AND as well as OR, but do not recognize NOT. For that you must use the minus sign (-).
- NEAR used to request that terms should appear near each other (within so many words of each other is no longer recognized by any of the currently main search engines. Though some foreign or specialized search engines may still use it.
- Boolean commands must be typed in uppercase (all caps).
- Advanced Search has obviated the need for using Boolean terms.
 - Still, understanding these can make some searches easier.

Be aware of STOP words

- Stop words are common words that a search engine typically ignores in order to avoid false hits (irrelevant search results) when included in a search query. Common stop words include **to**, **be**, **or**, **not**, **a**, **the**, **in**, **up**, **if**, **an**, **at**, and **out**. Include them either by using quotes or + sign. Be aware if your results are unsatisfactory.

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Using a + (plus) or – (minus) sign can narrow a search.

- Putting a + sign in front of a term, includes that term in the search criteria (before each term you wish to be included in the search place a + sign (without a space), then leaving a space after each term, then another + sign in front of next term. It is the same as putting AND between two terms.
 - Example: **+dogs[space] +cats** yields hits including both dogs and cats.
 - Most search engines assume a plus sign in front of any term not specifically preceded by a minus sign.
- In similar fashion, placing a - sign in front of any term excludes it from the search (and is the same as using NOT).
 - Example: **+dogs –cats** will yield only the dogs articles in which cats are not mentioned.
- Most current search engines recognize the + and -, though not all would recognize AND or NOT.

Use of * (asterisk) or the ? (question mark) are wildcard symbols, which can be tried, but may be ignored by most search engines.

- With * you can search for **plurals** or **variations** of spelling of words. This is called “using a wildcard character”. It is also a great way to search if you don’t know the exact spelling of a word. Examples are:
 - *sing** finds singing and sings
 - *theat** finds theater and theatre
 - The * allows searches of up to 80 additional not provided characters.
- You can also use the asterisk to replace a missing word in a phrase, such as a penny * is a penny earned.
- With a ? (question mark) you can replace a single missing character.
 - Defen?e for instance would find defense or defence. (the British or Canadian term).
 - Psych????y Would find psychology and psychiatry, but not psychotherapy.

Use of Parentheses (), called “nesting”

- Nesting allows you to build complex queries. You nest queries using parentheses, like this: impeachment AND (clinton OR johnson)
 - Vs. impeachment AND clinton OR johnson
 - Can change the order in which terms are searched
 - Typically a search engine searches each term in the order listed
 - Nesting card adjust that order
- Be aware that each of the major search engines may process nested queries differently than each other. Google for example discourages using nesting, and gives similar results
 - Must be trial and error for the best results
 - May be easier to use “Advanced search” option

Search Engines are getting smarter and smarter, and often find your desired information without using any of the above described techniques, other than the minus sign and quotation marks. But you should have knowledge of these options.

A good explanation of these "tools can be found at:

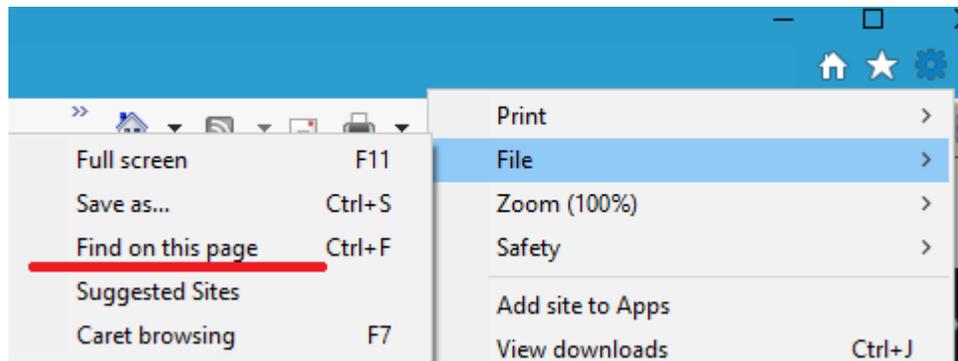
<http://find.galegroup.com/ovrc/help/SearchTipsGeneralHelp.html>

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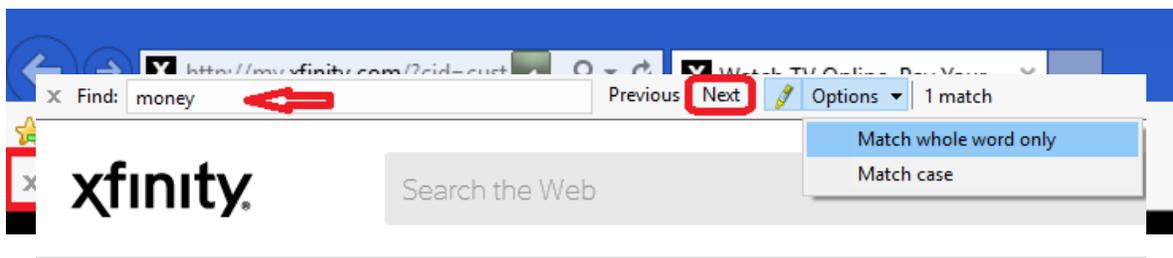
Some Helpful Functions of Internet Explorer for searching:

(Image are from Internet Explorer 11.)

- Using the FIND function helps find a word or phrase (whole word only box) on a web page. Get to it either by the keyboard command F3 or CTRL-F, or using the Tools menu (sprocket icon) and then File, and Find on this page.

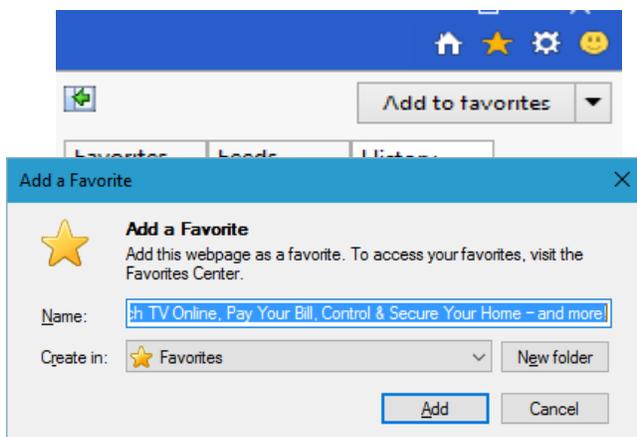


- When the “Find bar opens (just under the Navigation bars), type the word or phrase you wish to find on the page.



- Once you begin to type in the Find box, those words begin to be highlighted within the page. Click the Next button to move to the next instance highlighted.

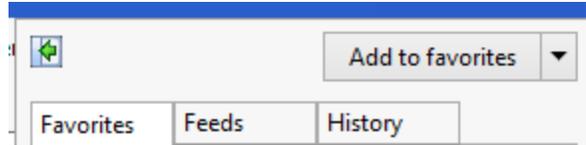
- Add sites to the Favorites list if you want to be able to return easily.
 - Go to the star icon, which changes to a gold star when hovered over,  and choose “Add to Favorites” at the top of the Favorites window.



- Another window then opens with the site name displayed and allowing selection of the folder into which to save the Favorite.

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- Open the Favorites folder by clicking the star , and "pinning" it by clicking on the green left-directed arrow in order to organize many sites (creates folders, and categorize). 
- Use Favorites menu drop-down menu only if you want to change one item from a right-click menu.



Some Points about Search Information

- **Be Cautious**, even Skeptical, depending on the information you seek.
- **First and foremost**, does the information make sense?
- Is any of it contrary to what you know?
 - Or to other sites of information?
- Is it somebody's personal page?
 - Thus having a particular **bias**.
- Read the URL* carefully:
 - Look for a personal name (e.g., *jbarker* or *barker*) following a tilde (~), a percent sign (%), or or the words "users," "members," or "people."
 - Is the server a commercial ISP* or other provider mostly of web page hosting (like aol.com or geocities.com)
 - This does not necessarily mean it is bad, but be aware of potential **Bias factor**
- **What type of domain does it come from ?**
(educational, nonprofit, commercial, government, etc.)
- Is the domain appropriate for the content?
 - Government sites: look for .gov, .mil, .us, or other country code
 - Educational sites: look for .edu
 - Nonprofit organizations: look for .org
- If from a foreign country, look at the country code and read the page to be sure who published it.
- **Is it published by an entity that makes sense to provide the information?**
 - Who "published" the page?
- You don't necessarily want to rely on "How to grow daisies" on a medical site, any more than you might rely on medical information obtained from a gardening site.
- In general, the publisher is the agency or person operating the "server" computer from which the document is issued.
 - The server is usually named in first portion of the URL (between *http://* and the first */*)
- Have you heard of this entity before?
- Does it correspond the name of the site? Should it?
- **Is the information consistent from one site to another?**
- Visit more than one site for verification

- **Scan the periphery of the page for "about us", or "information", "philosophy", etc.**

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Resources

Review: <http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/FindInfo.html>

Using + or -

- <http://www.searchenginewatch.com/facts/math.html>
- Boolean Searching on the Internet
<http://www.internettutorials.net/boolean.html>
- An easy-to-read and comprehensive guide to Boolean searching on web-wide search engines.
- Power Searching for anyone. <http://www.searchenginewatch.com/facts/powersearch.html>

Comparison of some of the best Search Engines

- <http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/SearchEngines.html>

Comparison of Search Directories

- <http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/SubjDirectories.html>

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Google Search Engine Searching Tips (or Features)

A good source of information is: <http://www.google.com/help/features.html#local>

- Cached Links
 - Google takes a snapshot of every web page it indexes. So if the page cannot be found using the link, and is critical, try searching the “cached pages” by clicking on the word “Cached” at the end of the link.
- Find definitions by typing the word define in front of the word or phrase (no quotes) you want the definition for (example: **define veterinary medicine**).
- Use Google to do simple calculations, or conversions
 - **5+2*2** (+ to add, - to subtract, * to multiply, and / to divide)
 - **10% of 150** (calculates the percent)
 - **2^20** (2 to the 20th power, or 2²⁰)
 - **sqrt(4)** the square root of 4)
 - **half a cup in teaspoons** (covert measurements)
 - **5280 feet in miles** (converts feet into miles)
 - For rules and nomenclature, go to <https://support.google.com/websearch/answer/3284611?hl=en>
 - Google searches not only HTML (web pages), but also PDF (Adobe Reader) files, PPT (PowerPoint) files, DOC (Microsoft Word) Microsoft Office, Word Perfect, and Corel documents.
 - If a particular file type is interfering with the search, use the **-PPT** (minus sign before PTT or dotPPT) for example.
 - Google can also view these file types even if you do not have the particular program on your computer by choosing “View as HTML” after the link.
 - Or if you just want to see if it is what you want without downloading the file.
- “I’m Feeling Lucky” simply takes you to the first page (“hit”) found, rather than listing all the pages found. It makes the assumption the page it has ranked highest (based upon the number of times the words you have chosen for the search appear) is the one and only you want.
 - If you think you gave it enough info to find what you want on the first try, use it.
 - If you are wrong, you simply must backup and run the search again, this time choosing Search.
- Google can act as a phone book, or reverse phone book. Enter into the search line:
 - first name (or first initial), last name, city (state is optional)
 - first name (or first initial), last name, state
 - first name (or first initial), last name, area code
 - first name (or first initial), last name, zip code
 - phone number, including area code
 - last name, city, state
 - last name, zip code
- Search by number (VIN, UPS FedEx & USPS tracking, UPC, area code)
 - Patent numbers by prefixing it with “**patent** then the number
- Use “Similar Pages” to search pages related to the one you wanted
- Use **site:www.domain.com** following the search criteria to limit a search to a specific domain, such as **admission site:www.usf.edu**. (limits the search to web pages within the usf.edu domain).

“Did you mean?” checks the spelling within your inquiry.

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Google Search Engine Searching Tips cont'd

- For stock quotes, insert the stock's official symbol (such as INTC for Intel).
- Find persons by entering the phone number (not cellular numbers yet).
 - Example: **239-555-8900**
 - It also provides the option to obtain a map
- Find street maps
 - By entering the street address and either the city & state, or the zip code.
 - Examples: **2151 Imperial Circle naples** or **2151 Imperial Circle 34110**
- Airport information by typing the three character airport designation followed by the word **airport**
 - Example: **ORD airport**
- Web page translation for foreign language pages by clicking "Translate this page" before going to it.
- Using the typed "**link:siteURL** (such as **link:www.bestbuy.com**) lists all other sites linking to the particular web site.
- Search for items locally by adding either the city, or the zip code to the search criterion.
 - Example: **clothing stores 34110** gives sites with stores within the area around Naples, Florida.

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Getting Computer Help Online

- **For Microsoft Products** (including Windows)
 - Using Microsoft's Knowledge Base
 - Go to <http://www.microsoft.com> and click on "Support" (lower left column). This will take you to <http://support.microsoft.com>.
 - Or go directly to: <http://support.microsoft.com>, then at the top left, look for "Search the Knowledge Base", and type the error, or words to describe the problem.
 - Choose Advanced to view select a specific program, or "All Programs" if not sure which to pick.
 - Type precise error messages
 - support.microsoft.com also gives options available for help from Microsoft.
- Particular Program Manufacturer's Web Site – Support
 - Not just Computer Support
 - Often have similar Knowledge Bases
 - FAQ (Frequently Asked Questions)
 - Many have User Manuals
 - May have e-mail access for direct support
 - Some have Live Chat sessions with technicians
 - May have phone contact information
 - Some are **fee-for-service** for E-mail, Live Help or Phone help
- Use google.com
 - When a message comes up (error or warning), a virus/spyware file found, an Internet pop-up warning appears, **put the message in Google**.
 - It provides enormous information
 - Search specific help topics
 - Type precise error messages
 - Search for manufacturer's web site

Hint:

Use the **Print Screen Key** to take a snapshot of most Windows errors, or problem screens (ALT-PRNT SCRN saves only the front window message). Then Paste into Paint, and save (to refer back to), or save as a jpeg (.jpg) file for an e-mail attachment to send for assistance. Refer to our direct web site link to the PDF http://www.duprecomputers.com/learning/pdf/instructions/print_error_messages.pdf for a step by step instruction; or go to <http://www.duprecomputers.com/learning/> our home page, and then the Step by Step instructions link labeled "Print Error messages".