

Web Searches Course

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How to make better web searches

- **Some basic webpage terminology**
- **Generals rules/info**
- **Tips and tricks**
- **Demo Settings/Tools for specific search engines and browsers, if desired**
- **Extra notes on some specific engines/web pages**
- **Reverse image search**

Terms: Search Box and Engine

- The place where you type the words/phrases you want to search for I'll call a **search box**. Can be various places.
 - Browser address bar
 - Browser upper bar
 - Browser lower bar
 - Within a webpage
 - On demand by keystroke(s), e.g. CTRL-f
- The program that processes your requested search and delivers the results is the **search engine**.

Our friend URL

URL (Uniform Resource Locator)
aka Address, Link, Alias

Most web browsers display the URL of a web page above the page in an address bar. A typical URL has the following form (but they can vary)

<http://www.example.com/index.html>

Where the pieces/parts of the URL are:

Our friend URL II

- **http** ; type of service, protocol/access mechanism. In this case Hypertext Transfer Protocol. Note: 'https' is the secure version.
- **www.example.com** ; host name/node name.
human-readable nicknames that correspond to the address of a device connected to a network. The term domain name typically refers to the example.com part of the host name, but the rules for naming can vary. It can also refer to the whole name, or even just the last part (.com), which is sometimes called the extension or domain type.
- **index.html** ; filename (and location) on the web server that is sending you the webpage.

Some Domain Types

Wikipedia list of [domain suffixes](#)

Basic Search Rules

- Search engines are usually not case sensitive (unless you force them to be, and you can't necessarily even do that). Don't worry about capitalization.
- Most searches ignore punctuation, or use punctuation characters for special purposes. Normally you don't want to use punctuation in web searches.

Basic Search Rules II

- Don't include small common words (e.g. A, the, in ...) unless they are part of an exact phrase. They probably won't hurt, but they don't help, and why type more than you have to?
- Unless otherwise specified, most of what we'll see in class are general rules that should work for most search engines/browsers. Your experience may be slightly different than what we see here.

Quick note on reading these slides

- Words we type in a search box will be called words, or keywords, or terms. An exact phrase or sentence in double quotes will be a search string.
- We will see some special keywords and characters we can type in a search box. Also known as operators.
- Individual characters will be noted by single quotes, e.g. 'x'
- To show an example of something that's typed into a search box I will use underline and/or overline.

keyword1 keyword2 keyword3

Searching for an "exact" phrase

Use double quotes to find an "exact" phrase, otherwise search engines may ignore the order of words you typed and return results with any occurrence of any of the words anywhere on a webpage. To search about a certain band use double quotes, otherwise you'll get results mixed in that are just about something big, or audio, or dynamite;).

"Big Audio Dynamite"

Searching for an "exact" phrase II

Also, google (for example) may include partial matches or synonyms of what you typed etc. It may assume a word you typed is misspelled and search another word/phrase instead. On google, to force a search with exact exact matches you need to do a Verbatim search. More on that later when we look at Google settings.

Search within specified website(s)

Google (for example) can often do a better job of searching a specific website than the search box/engine the site provides. This can be helpful when looking for information on a specific product or product line.

Use site: to search within a specific website;

site:example.com "search string"

Search specified website(s) II

The special word site can also be used to restrict a search to certain types of websites only. For example to search all sites that end in .gov for a specific string;

site:.gov "search string"

Search related sites (only)

- Similar to the special word site, we have the special word related. Tells the engine to search all related sites.

related:youtube.com "big audio dynamite"

Search within website names

- What if you want to search for websites whose name contains a given word, rather than looking for the word in the webpage's content? There is a special word for that too! The following would return a list of websites whose name contains "learners"

inurl:learners

Search for specific file types

- For example, to find a user manual in PDF format for my vacuum cleaner

Filetype:pdf "electrolux oxygen 3"

Search by geographic location or language (Bing)

- Search within a specified location.
Example; find tourist attractions in the United Kingdom
loc:UK tourist attractions
- Search pages with a specified language.
To see webpages only in English about antiques, type "antiques" language:en.
"antiques" language:en
- Bing [list of locations and languages](#)

Special Keyword/Operator lists for various search engines

- Yahoo!
 - <http://www.searchcommands.com/yahoo/>
- Bing
 - <https://msdn.microsoft.com/en-us/library/ff795620.aspx>
- Google
 - <https://support.google.com/websearch/answer/2466433>

Use the power of "NO"

- Usually when you type individual words a search engine thinks YES, **include** results that contain each of those individual keywords. Here's how to also tell it words to **exclude** from the results.
- Example; you are searching for the name Tom Ford, but you don't want results for Ford Motors. Do the following.

"tom ford" -motors

More on Booleans

- By default search engines assume boolean logical OR between keywords. When you type a 3 word search by default the engine finds results that contain word1, or word2, or word3 (results that contain any one or more of the words). You can change the logic the engine uses with special characters or words.
- If you put a '+' or "AND" between words the results would be pages that contain word1 and word2 and word3 (results must contain **all** of the words).

More More on Booleans

- Boolean and other operators
 - '-' , NOT
 - '+' , AND
 - Double quotes mean NEAR (search for exactish phrase in quotes)
 - '|' is exclusive OR ; results with 1 and only 1 of the search terms in them
 - '..' Numeric ranges. Must supply the unit of measurement if applicable.

Examples: [Windows XP 2003..2005, PC \\$700..\\$800.](#)

Be specific if you can, but don't worry about being too specific

- Example, searching for "olive oil", you'd get lots of results. To find a good local olive oil store the following would be better;
 - olive oil store ocala fl

Actually these 2 searches gave similar results using Google. The simple search "olive oil" had as it's 2nd result the store I was thinking of (Olive Obsession, who's website is probably well optimized

Interested in how website developers do this? Here's one [guide](#)

Don't Use Common Words

Don't use common words and punctuation (e.g. A, the, in) unless they are part of an exact phrase you are looking for, they are usually ignored. For instance, these two searches will return different results.

raven

"the raven"

Don't use suffixes (it's often better not to)

It's usually best to enter the base word so that you don't exclude relevant pages. For example, *bird* and not *birds*, *walk* and not *walked*. One exception is if you are looking for sites that focus on the act of walking, enter the whole term *walking*.

Autocomplete

With an autocomplete feature, ordering search terms from general to specific in the search box will display helpful results in a drop-down list and is the most efficient way. Selecting the appropriate item as it appears will save time typing. You have several choices for how the AutoComplete feature works:

Using Google AutoComplete. The standard [Google start page](#) will display a drop-down list of suggestions supplied by the Google search engine. This option can be a handy way to discover similar, related searches. For example, typing in *Tucson fast* will not only bring up the suggestion *Tucson fast food* but also *Tucson fast food coupons*.

Searching within a webpage

Once you have a list of results (web pages that match your search), an easy way to search for things within a given page is CTRL-F. This brings up a "find" or "search" box (usually near the top or bottom of the browser window).

{Command-F on MAC}

Use more than one search engine

- Sometimes trying another engine gives better results
 - General searching; Google, Bing, Yahoo!
 - Duckduckgo – no server-side tracking
 - Video – if you are specifically looking for a video, sometimes it's easier to just search the big video site(s), e.g. Youtube
 - Shopping, e.g. Amazon
 - U.S. Government, Usa.gov

Wildcards

Sometimes getting too few results can be a problem. Many search engines allow wildcard characters in a search string (double quoted string).

- * - matches 0 or more characters or words (any characters)
- ? - match any single alphanumeric character (letter, number, punctuation)
- # - match any single numeric character (0-9)
 - The '#' used to be used to match numeric characters, now it's used to match hash tags (twitter) too. Handling of this varies and may change over time.

Browser History

- Your Browser(s) typically has a history feature that stores previous searches and websites visited. Sometimes it's easier to find old searches you've done before in the history rather than reinvent the wheel. Assuming the feature is enabled (which it is by default in most cases).
- If you like, browser history tracking can usually be disabled or set to delete itself when you close the browser (all windows).

One last (special) word

To get some details about a website you can put "info:" in front of the site address. One of the things you can often do is look at a cached copy of the website (a temporary copy of the webpage that was previously stored locally on your computer).

<info:seniorlearners.org>

Epilogue

- Not finding what you want? Try another search engine;
 - Yahoo.com, Ask.com, Bing.com, DuckDuckGo.com
- If desired I will demonstrate Google main page options and advanced search options, and/or browser settings
- Complex search not giving good results? Try different keywords or the synonym operator '~'
- Don't assume the very top results are best, they could be paid advertisements
- Don't go through more than 2-3 pages of results (except for images). By that point the odds of finding what you are looking for go down drastically

DuckDuckGo search engine

- Best choice for privacy, which can be a big concern on the internet. DuckDuckGo doesn't collect your browsing history, social media profiles etc. Google (and others) do.
- Many like DuckDuckGo for its features like 'zero-click' information (all your answers are found on the first result page), infinite scroll, and prompts to clarify your questions. Also the ad spam is much less than Google. If search privacy is your concern, try DuckDuckGo.
- Uses google underneath, but filters out the tracking etc.

Dogpile search engine

- Combines results from Google, Yahoo, Bing and Ask. It curates information, links, images and videos from other search engines like Google, Yahoo, Bing, Yandex to give helpful crosslink results and offers features like categories, preferences, search filters, recent searches, etc. for better search results.
- This type of engine is sometimes called a meta-search or aggregator.

Bing search engine

- Bing may be the second most popular search engine today. Powered by Microsoft and “forced” on you when you use Windows10’s Cortana voiced assistant . Good for maps, and location and language specific searches.
- Overall I have not been impressed with Bing. Often when I do the same search in Bing and Google (or DuckDuckGo), the Bing results are vastly inferior.

Yahoo search engine

- Yahoo used to use its own search engine, now it uses Bing search results for its web engine. Yahoo Answers is there for the things that engines like Ask.com and Chacha.com do (results where other users answer the questions you search for).
- Yahoo Finance is still a good financial news aggregator from what I can tell

The Internet Archive

- It's a website; archive.org/index.html
- The Internet Archive let's you search past web pages. For years, it has been taking snapshots of the entire World Wide Web and has maintained an online archive containing millions of images, books, software, movies and much more.
- Not a search engine but it lets users search iterations of websites in the past.

Overriding Bing on Windows10/Cortana

- You can use an app (like EdgeDeflector) to force another browser.
- You can use a browser extension (e.g. Chrometana, bing-google for Firefox) to redirect searches to another search engine.

Links

Better web searches links

<https://www.lifewire.com/web-search-tricks-to-know-4046148>

<https://www.editage.com/insights/how-to-make-web-searches-more-precise>

<https://blogs.scientificamerican.com/observations/how-to-be-a-better-web-searcher-secrets-from-google-scientists/>

<http://www.findingdulcinea.com/features/edu/Make-Search-Engines-Work-for-You--Tips-for-Better-Searches.html>

<https://www.lifehack.org/374487/try-these-15-search-engines-instead-google-for-better-search-results>

<https://www.theguardian.com/technology/2016/jan/15/how-to-use-search-like-a-pro-10-tips-and-tricks-for-google-and-beyond>

<https://www.howtogeek.com/226638/make-the-windows-10-start-menu-and-cortana-search-google-instead-of-bing/>

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<https://www.lifewire.com/best-search-engines-2483352>

<https://www.comparedandreviewed.com/search-engines>

<http://www.ebizmba.com/articles/search-engines>