**Understanding a Search Engine - Google:** There is a whole lot more to the world of searching than Google, but Google is the definite leader in this field. It is a fantastic search engine and much more. Some people badmouth Google for various reasons but many times these are incorrect comments because they haven't really studied how Google works. If you do not have an account, go to <a href="http://www.google.com">http://www.google.com</a> Sign In > Create an account now.

#### Google Page Ranking.

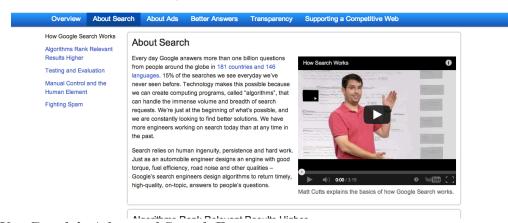
Go to http://infolab.stanford.edu/~backrub/google.html. Don't read the entire paper but get a sense of this masterful creation from 1998. You should know the name of the two who created Google. Go

to http://www.google.com/competition/howgooglesearchworks.html. Check out the video and read about PageRank. Next read about their

philosophy: http://www.google.com/about/company/tenthings.html.

- 1. Write a paragraph about the importance showing up at the top of a Google search and the importance of not being able to buy page rank. How does Google keep companies from manipulating rankings (use the words algorithm, variables and terms in your answer and don't forget the screen capture).
  - 1. Google constantly revises its search algorithms. They are constantly targeted by companies whose entire business is to help other companies get listed higher in search rankings. This is called Search Engine Optimization and is a huge business. To be listed high in the rankings is a very valuable thing for businesses. With billions of searches a day, Google can direct a lot business to a company. By revising its algorithm and keeping it top secret Google can prevent companies from gaming it, and cheating using Search Engine Optimization techniques.

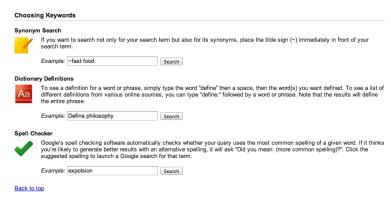
Google Facts about Google and Competition



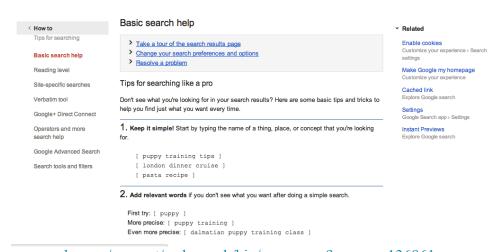
### **Learning to Use Google's Advanced Search Features**

- 2. Go to http://www.google.com/help/features.html. There are many great features to learn about here. Explain definitions and synonym search.
  - 1. The definitions search allows you to type "define:" before a word and Google will return the definition of the word from several different sources.

2. The synonym search allows you to put a  $\sim$  in front of a word and Google will return synonyms of the word.

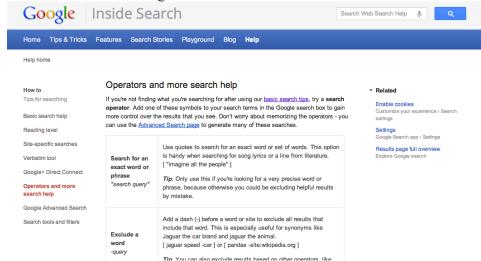


- 3. Go to http://www.google.com/support/websearch/bin/answer.py?answer=134479. Here you have some basic search tips. Explain capitalization and recommendations for term selection.
  - Capitalization in a search term will indicate a Boolean operator like AND or OR. These help to tell Google which words to pay attention to, or how to put keywords together in the search.
  - 2. Term selection is key for a good search. It may take several searches to get the right results. It's a little bit of trial and error. You should keep it simple at first and include more words to narrow down the results. However, you shouldn't add unnecessary terms to the search as that might add confusion.

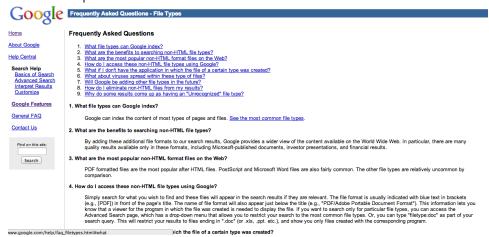


- 4. Go to http://www.google.com/support/websearch/bin/answer.py?answer=136861. Explain site search, phrase searching exclude, wildcards, the plus sign, the OR operator, and the AND operator. Look at the advanced search page (http://www.google.com/advanced\_search). Have you used this or the other operators? Go tohttp://www.google.com/support/websearch/bin/answer.py?hl=en&answer=35890 and
  - tohttp://www.google.com/support/websearch/bin/answer.py'?hl=en&answer=35890 and read through the summary of the advanced search.
    - 1. To search within a particular site you can use "Site:" before your search terms and it will only search within that site as opposed to the whole web.

- 2. To exclude a word or phrase from your search use a hyphen to denote a minus sign and Google will return results that do not include that term, but do include your other terms.
- 3. Using an \* you can indicate a wild card and Google will fill in the blank with the results.
- 4. The plus sign will search for Google Plus pages with your search term, or they can be used after a term like in looking for information about a blood type like AB+.
- 5. The OR operator will tell Google that it should search for one of the search terms but not all.
- 6. AND will do the opposite of OR and tell Google that it must find all search terms and not just one of them.
- 7. I have used operators quite a bit. I frequently use quotation marks to indicate that I'm looking for an exact search.



- 5. Files types that Google searches: http://www.google.com/help/faq\_filetypes.html. What are they and why is this useful?
  - 1. Google can index and therefore search many different file types. This is useful when you're looking for a PowerPoint presentation on a topic, or a PDF of a report or document.



- 6. Search Google with info:www.yourschool.k12.us (or whatever your school's address is). **No space after colon.** Explain what you find. Answer will include works like "cache," "link to" and "from the site." If you don't see these be sure you don't leave a space after the colon.
  - 1. The results for this search show a link to HBS' home page. It also shows other options like being able to look at a cached page, or a frozen moment in time of the site when Google last crawled it. I can also look for sites that link to <a href="www.hbs.edu">www.hbs.edu</a>, or sites that are linked from <a href="www.hbs.edu">www.hbs.edu</a>, or other pages, and a list of pages within the <a href="www.hbs.edu">www.hbs.edu</a> on other pages, and a list of pages within the <a href="www.hbs.edu">www.hbs.edu</a> domain.

#### **Customization and New Features of Google**

- 7. What is iGoogle? Here's the direct link: http://www.google.com/ig. You may have to logout if you are logged into a school Google account as the school may have some features turned off.
  - 1. iGoogle is a soon to be defunct feature that Google offers. Some people prefer the blank homepage that Google.com offers because of its simplicity. But Google developed iGoogle for users who wanted to customize their homepage with widgets like weather, news, sports, stocks, etc. It provides a customizable web page for people to use instead of the plain Google hompage.



- 8. Search "new products google." You should see additional search tools in the left side of the screen. Change the time range that is searched (e.g. Past hour, Past week, Custom range). Click to see "Show search tools." Check out the "Reading level" option. Google has trimmed down it's publically viewed experimental items (no more Google Labs with Wonder Wheel, Timeline, or Buzz ... L).http://www.google.com/about/ Check out Doodles and Initiatives.
  - 1. I always love looking at Google's new products and innovations. Labs are still alive and well within products like Gmail and Calendar, but because many of their Labs don't actually reach primetime, they don't generally reveal them early any more. My favorite division of Google is Google.org. It's the non-profit arm of Google and it's where they showcase initiatives in which they have used their vast and powerful technological resources for good. It's amazing what they have been able to accomplish in many areas.



9. Check out the following

links: http://scholar.google.com, http://scholar.google.com/intl/en/scholar/about.html,http://scholar.google.com/intl/en/scholar/libraries.html. Write a paragraph on what you learned from these sites.

1. Google Scholar provides a one-stop search engine for searching scholarly journals, articles, and papers. If you have an account with an online library you can use Google (usually more simple and familiar than the library's search) to search for articles for your research. It is meant to put all resources at your fingertips, and provide a reliable search engine for finding good research sources.



# Google: Safety, Languages and Search Directory – Google

- 10. Read about SafeSearch, Volunteer Translator Program and Directory Use. Write a paragraph on how this information can impact your classroom.
  - 1. SafeSearch is very useful in a school environment because it allows you to limit inappropriate content from students. In fact, as part of Google Apps for education, admins can control Safe Search settings for its users and enforce its use. The volunteer translator program gave me an Error 502 when I tried to log in and sign up, so I wasn't able to explore it, but when I looked into it I was able to find out what it is. It would be great for a foreign language class to use it as a way of practicing translation in a practical and useful way.

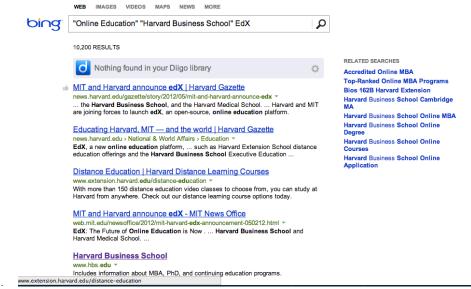
#### **Search Strategy:**

11. Reread "A Basic Search Strategy: The 10 Steps" on pages 119 – 120 including Search Tips. Do Activity 6.1, 6.2 and 6.3 – Google, Yahoo! and ExaLead. Provide a screen capture for each demonstrating completion. Here is a thesaurus to help you locate synonymshttp://www.m-w.com. After completing the activities, simplify the 10 step approach for your students or colleagues.

1. Activity 6.1 Google "Harvard Business School" AND "Online Education" EdX OR HBX Images Maps Shopping More ▼ Search tools About 90,500 results (0.42 seconds) Ads (i) Nothing found in your Diigo library UVA Darden Executive MBA Ads related to "Harvard Business School" AND "Online ... i Feb 28 Event in Boston, MA. US & Global - While You Work Harvard Business School - exed.hbs.edu Executive Education Program: Building Global Leaders. Apply Now. Cornell Queen's Exec MBA Comprehensive Leadership Upcoming Programs Earn an Ivy League MBA near you.
On weekends for mid-career managers Advanced Management Program Kaplan Business Degrees - Kaplan.edu **ASU Business School** www.kaplan.edu/Online-Business-Degrees

Earn Your Business Degree Online. Learn More About Kaplan University Accredited Business Degree Online Degree 100% Online - Find Out More Kelley School Of Business - kelley.iu.edu **Business Degrees** Get Your IU MBA Quickly, With Online Courses. Start Today! From Walden University Online Start Towards a Better Future! Coursera, edX, and MOOCs Are Changing the Online Education ... 297 people +1'd or follow Walden University www.technologyreview.com/.../the-most-important-education-...
Nov 2, 2012 – Online education isn't new—in the United States more than 700,000 ... the influential Harvard Business School professor who coined the term ... **Bryant Business School** Will edX Put Harvard and MIT Out of Business? - Forbes 1. 2. Activity 6.2 YAHOO! SEARCH Yahoo! - Search Home - Help **Advanced Web Search** You can use the options on this page to create a very specific search. Just fill in the fields you need for your current search. Yahoo! Search Show results with all of these words online education any part of the page \$ the exact phrase Harvard Business School any part of the page \$ any of these words Edx, MIT, HBX, MOOC none of these words any part of the page \$ Tip:Use these options to look for an exact phrase or to exclude pages containing certain words. You can also limit your search to certain parts of pages. Site/Domain Any domain Only .com domains Only .edu domains Only .gov domains Only .org domains only search in this domain/site: Tip: You can search for results in a specific website (e.g. yahoo.com) or top-level domains (e.g. .com, .org, File Format Only find results that are: all formats SafeSearch Filter Applies when I'm signed in: Strict: filter out adult web, video and image search results - SafeSearch On • Moderate: filter out adult video and image search results only - SafeSearch On Off: do not filter web results (results may include adult content) - SafeSearch Off 3. Activity 6.3

(www.exalead.com is no longer a search engine, so I used www.bing.com instead.



**Meta-search Tools:** Provide one screen capture for each question 12-14.

- 12. Go to <a href="http://www.yippy.com/classic.asp">http://www.yippy.com/classic.asp</a> and click "More" in the top right corner and read about this site. Go back to the search page and search 'webquest.' Click on the three tabs clouds, sources and sites. Now go back to the search page and click on "Advanced" to see advanced search options.
  - 1. I found Yippy to be pretty useful. I like the idea of the "clouds" they seem to work pretty well too. I also like the other tabs, especially where it breaks out the sites by domains. This would be particularly helpful for research. You could filter out all of the .coms and go straight to .edu, or .org sites. That being said, it didn't exactly hold true to it's statement about filtering out all of the spam from other search engines because it still presents you with ads at the top of the search results. I guess they have to make money somehow.



- 13. Go to www.dogpile.com and search a topic for your classroom. Note the search engines searched and the sites found under which search engines (including 'sponsored by' finds). Dogpile previously did not identify sponsored links now they do!
  - 1. I didn't really like dogpile. I did a search for "SharePoint Training" and it came up with 5 sponsored results before the actual results. I was only able

to see one non-sponsored result before I had to scroll down. I also didn't like the site design. It wasn't very clean, and the results all kind of blended together to me. Overall I wasn't pleased. I like the idea of aggregated search results, but in the end, they're all searching the same web, so it comes down to which one delivers most consistently for you, and for me that's Google.

- 14. Go to http://www.thrall.org/proteusqueryevaluator.pl?userquery and develop and expression to search for webquests relating to Framingham State. Once you've come up with an expression use it on the Lightswitch site http://www.thrall.org/lightswitch/general.html.
  - 1. I didn't like the Proteus evaluator. My search term was "webquests AND "Framingham State University"" and when I had the tool evaluate my search it alerted me that the word AND should not be used because it is too common. It didn't recognize it as a Boolean operator. Then, when I translated it to Boolean, it just presented me with exactly what I had originally typed. Despite it alerting me that there was an inefficient term in my query, I found great results on Google using LightSwitch.

**Proteus Query Evaluator** 

# Select a manner in which to evaluate your query by clicking one of the test buttons below. Note: Boolean evaluations are only effective when you provide two or more search terms. | webquests AND "Framingham State University" | | Analyze this Query | Case Sensitivity Test | Convert to Boolean | | Convert from Boolean | Spelling/Thesaurus/Encyclopedia |

## 2.

#### **Summary**

15. Reread pages 25- 27. Summarize search directories, search engines and meta-search tools for your students or colleagues. Include a table with the advantages and disadvantages of each tool in your own words for your students or colleagues. How would you teach this to your student (or colleagues)? Be sure to lead with your objective.

Next up is the invisible, hidden or deep web. We have only scratched the service with these tools!

#### Learning Objectives:

- 1. What are search directories, search engines, and meta-search tools?
- 2. How are they different? How are they similar?
- 3. How is each used?

Search directories are compiled lists of sites broken down by categories. They are usually browsed by clicking on parent categories and narrowing down using sub-categories. Most can also be searched for results as well.

Search engines are tools that crawl, or index, the world wide web and allow you to input key words or phrases that you're looking for to find matching sites. They search the entire web, not just specific sites, so they often cast a very wide net and return millions of results.

Meta-search tools are tools that compile results from several search engines and try to present the most relevant results by comparing them. They usually can't handle searches as complex as the one you would use with a search engine, but can sometimes provide more useful results because they aggregate from different search engines.

	Directory Searches	Search Engines	Meta-Directory Search Tools
Examples	Yahoo! Directory, DMOZ	Google, Yahoo, Bing	LightSwitch, Dogpile
Advantages	Organized by category, compiled and sorted lists	Fast way to search the whole web, operators help to narrow your search query.	Searches several search engines to return the maximum possible results, can compare search results and show you the best ones from various search engines.
Disadvantages	Most directories require payment to be included, because they are compiled, they don't include all sites, and they are usually out of date	Often display sponsored advertisements before the search results, can be games by sites to increase their placement in results.	Often show sponsored results, and you aren't always able to use complex or extensive search queries.