

Internet Fundamentals



Web Search Basics

Tips for easier searching (edit 11/04/07 9:45pm)

Hint: You might try [FireFox](#) as your browser.

Three Types of Searches

At the end of 2001 the web contained over 2 billion pages and Google searched 500.000 pages. In Jan of 2005 Google searched more then 8 billion pages. Even more impressive is the fact that it can be relatively quick and easy to find information on those pages.

Note: many search engines may contain multiple methods e.g. Yahoo at one time used Google's search engine for some of its searches.



Introduction

Pick the right search engine.

- The best search method depends on your problem

Don't rely on one search engine!

- Try different engines,
- Choose and bookmark the search engines that serve your needs,
- Find “Tips”, “The Basics”, “advanced”, etc. on the engines web page and enhance your search skills for that engine

Jim Ross

CSUB Computer Literacy Instructor

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Types of Searches

- Index Searches (Directory)
- Natural language Searches
- Concept/keyword Searches

There are other types. For example some searches use more than one search engine to improve "hits". This is called a Meta-Search engine. One example <http://www.clusty.com>



Index Searches

- A Directory of cataloged, hierarchically, structured lists of web sites, like the yellow pages of a phone directory. Good for broad topics, the big picture, top down. (search for “online mortgages”). Limited web site inclusion and not good for complex or specific concept/keyword searches.
- Typically these are evaluated for popularity, content and/or quality before being included
- Example:

<http://www.yahoo.com/> → Then check directory on left side

Try Yahoo and search for information about Chocolate



Natural language Searches

- A directory of possible questions. Good for frequently asked questions, use on simple questions, -least comprehensive in sites included in search
- Creators developed general question structures that can be asked about a topic
- A question is typed into the question box, possible alternative statements of the question are then given, followed by links for possible answers. Example:

<http://www.ask.com/>

Try Ask Jeeves and ask for information about Chocolate



Concept/Keyword Searches

- Structured to the user as a traditional library database. Good for specific searches e.g. “stain removal” and complex esoteric topics e.g. “multiple melanoma”. Not good for top down general searches. Google at last report indexes the most web pages of all search engines.
- “Bots” search the web for concepts/keywords picked by web site creators. Most organize the sites in terms of relevance as determined by links to a site and/or actual frequency of access of a web page, “hits”.
- Concepts/keywords are typed into the query box using Boolean logic and the search engine’s rules to limit the list to the most relevant.

Example:

www.google.com

Try google and search for information about Chocolate



Improving Searches using Logic with Google

Refine Your Search I

- Describe your search as completely as possible to focus returned links-- normally don't capitalize

(e.g a search for *carnivore* obtains a game, a type of animal and an FBI program, so specify your term)

history of chocolate

- Add quotes to limit search to those sites with this specific phrase:

“history of chocolate”

- Limit search to non commercial sites:
“history of chocolate” -.com

- Check other rules of the search engine for focusing your search

Most search engines have an advanced search similar to Google's. Check them out!



Boolean Logic for Searches

Refine II.

The exact syntax for logic varies with the search engine. On Google for example click [Advanced Search](#) to make choices. Review Search Logic at:

<http://www.internetutorials.net/boolean.html>

OR

<http://www.lib.csub.edu/infocomp/search/foundation.html>

- **AND**---requires both terms
chocolate AND history
- **OR**----finds either term
chocolate OR Hershey
- **NOT**---excludes term
chocolate NOT mars
- **Nested Boolean Searches**
chocolate AND [diet OR health]

How Boolean is used in advanced search on one engine:

with **all** of the words

with the **exact phrase**

with **at least one** of the words

without the words



Other Search Techniques

Refine III.

- Proximity operators—e.g NEAR. A search for “juveniles” NEAR “crime” would return sources with “juvenile” and “crime” usually within a specified range such as 10 words (not available for Google)
- Truncation—e.g *. Search for a specific beginning or ending with all possible for the unspecified part. Search for “*hood” would get “parenthood” “neighborhood”, etc. This is not available in Google
- Phrase search– “my search phrase”, available in Google and Teoma, etc.
- Use – and + instead of NOT and AND. Available in Google



What This Means

- If you are looking for general information about a topic of interest choose yahoo or askjeeves
- If you have specific information and/or a possible topic with limited available information choose google
- Practice with search engines, check their operation and rules to improve your search engine choice and limit extraneous information. You can check this list for possible search engines:

[Search Engine List](#)

- Keep up with new developments.

[Http://www.searchenginewatch.com/](http://www.searchenginewatch.com/)

- Learn more from an online tutorial on performing searches

<http://www.sc.edu/beaufort/library/pages/bones/bones.shtml>



Other Types of Search Engines 1

Meta-Searches; these organize links received from searches by more than one search engine.

- <http://www.metacrawler.com/>
- <http://www.ixquick.com/>
- <http://www.dogpile.com/>
- <http://www.clusty.com>

Specialized Search Engines

- <http://www.google.com/unclesam> One of The best government search sites via Google search engine
- <http://www.firstgov.gov/> The US government search.
- <http://www.switchboard.com> People, Businesses, Phone, Maps
- www.ditto.com Pictures, cartoons, etc
- <http://www.clipart.com/> Clip Art—now charges \$
- <http://www.apple.com/itunes/--Music>
- <http://www.napster.com/> MP3 audio –now charges



Other Information Sources 2

Specialized Information Searches (PC World April 04)

- <http://www.RefDesk.com> News, updates, almanacs, encyclopedia
- <http://www.thescannery.com> An investor focused search engine that covers the websites of more than 20,000 public companies in over 65 countries
- <http://www.searchsystems.net> Public records by location.
- <http://www.whitehouse.gov/fsbr/esbr.html> Links to current Federal economic indicators
- <http://www.census.gov/epcd/cbp/view/cbpview.html> County Business, an annual series that provides subnational economic data by industry
- <http://www.prb.org/> Social science statistics
- <http://www.invisible-web.net> *Finding Hidden Internet Resources Search Engines Can't See* By Chris Sherman and Gary Price



Other Information Sources 3

Specialized Information Searches (PC World April 04)

- <http://www.mayoclinic.com> Medical advice
- <http://www.fda.gov/cder/orange/default.htm> FDA's Center for Drug Evaluation
- <http://www.bizrate.com> Store ratings and product prices.
- <http://www.shopping.com> Store ratings and product prices
- <http://froogle.google.com/> Search for a product



Search Engines For k-12 Students

Suggestion:
Try these.
Choose one
or two you
like and
bookmark
them for
kids to use.
Don't forget
to check
"Other" at
the bottom
of the page.

- Use the search engines designed with k-12 students in mind
- These sources are organized and filtered for student use
- Examples of search engines for k-12 :

<http://www.yahooligans.com/>

<http://www.ajkids.com/>

<http://sunsite.berkeley.edu/KidsClick!>

http://directory.google.com/Top/Kids_and_Teens/

- Other search engines for kids:

<http://www.searchengines.com/generalKids.html>



Google 1—More of My current favorite

A. For kids: Avoid certain sites in your search, Go to Google:

- Click on the Preferences, right side of the search text box.
- At the bottom of the page, look for the "SafeSearch Filtering" header.
- Click the button next to "Use SafeSearch to filter my results."

B. Scholars: A beta site that provides search returns for academic and research purposes: <http://scholar.google.com/>

C. Photos [Google Image Search](#), now is primarily suited for people hunting down photos of personalities, celebrities, or news events

D. Add a Google tool to your Microsoft Explorer or Firefox browser.

<http://toolbar.google.com/>

This allows you to just type in a search phrase without going to Google's homepage. Information about this can be found at:

jross@csub.edu

http://toolbar.google.com/button_help.html

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E. Definitions: Find a definition of all terms in a search identified like the example below:

Results 1 - 10 of about 6,210,000 for microchip [\[definition\]](#).

Just click the [definition](#), in the example.

To obtain just a definition type “define:*wordtodefine*” in the Google search box like the example below:

F. Web page and text translation: Google will let one view any text or web page in a variety of languages. For example:

- Click **Language Tools** by the search box on the main page
- On the next page make your translation choice



G. Calculations and measurement:

Type in the Google box: 10+6

and you will get

10 + 6 = 16

Type in the Google box: half a cup in teaspoons

and you will get

half (1 US cup) = 24 US teaspoons

H. Phone numbers:

Type in the Google box: Costco Bakersfield, CA

and you will get

All the local Costco phone numbers and a map to each

Check for a list
of types of
Google
searches:

Reverse phone directory

Type in the Google box: (661)654-2384

and you will get

Information about me

I. Maps:

<http://www.google.com/help/features.html>

Type an address in the Google box: 9001 Stockdale Bakersfield Ca

and you will get

A map showing the address

Type in the Google box:

9001 Stockdale Bakersfield Ca to 2100 21st Street Bakersfield

click **Maps** and you will get

A map with directions



J. Cell Text Messaging to Google:

Type in the question: **Bakersfield CA to San Luis Obispo**
send message to 466-453 and you will get
A step by step map

Type in the Google box: **half a cup in teaspoons**
and you will get
half (1 US cup) = 24 US teaspoons

K. Q&A answers to your questions:

Type in the Google box: **population China**
and you will get

1,321,851,888 (July 2007 est.) ← **yours may be more recent**

Check for a list
of types of

Google **L. Etc:**
searches:

<http://www.google.com/help/features.html>

Stockquotes, type in the Google box: **stocks:msft**

FedEx or UPS tracking, type: **tracking number**

Product description, type in: **VIN or VIN (vehicle identification)**

Google Earth, Satellite pictures of earth locations—your house, CSUB...

More: Check More/Even More and Google Labs. New stuff includes internet based Word processing and spreadsheet, wikis, etc.



Google 2 : How Google Works

The Google Web Directory combines Google's search technology with the Netscape Open Directory Project to search the Internet.

- Sites are ranked based on their importance. Horizontal bars displayed next to each web page indicate the importance of the page.
- Google searches all the content of each site within a category, not just the titles and descriptions. This capability allows deeper searching within categories and produces more relevant results than any other directory search.
- The classification technique allows users one-click access from regular Google search results to the most relevant hand-selected web pages.

. More Google Tips:

<http://www.google.com/help/features.html>

