Searching on the Internet

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1 Overview

This is an overview of searching with efficently, using some of the tips and tricks to refine your search, and get information returned which is salient to your search. I am going to concentrate on the most used search engines Google and Yahoo, however the same principles can be used for better searching on other search engines and online archives.

2 Keywords

Most searches are for two or three keywords combinations, if you have more even better. As search engines are more and more sophisticated the order is often not that important. However if two words in the key phrase are couplet and you are searching for that exact phrase, then you should use quotation marks so as to search e.g. "Human Resources" Department, rather than have the search engine looking for both words.

Avoid using generic keywords (i.e. words which can refer to other things as well as what your are searching for) in your search and use specific keywords related to your search which will return better search results.

Another good idea is when you are entering in keywords, is look at what keywords are being suggested to you but the search engine, it will display popular combinations entered, searches you have entered before, it will even suggest different spellings of a word in case you have misspelt it(I find this very useful!).

If you know that the page or the information on the page is relating to a specific geographic location then it is no harm to specify that location in a search, while search engines my use geo-location information to serve you with results and adverts specifying the location you are looking for can help weed out unwanted results.

Choosing the correct keywords and phrases is the best way to get the most appropriate search results returned, and exclude results which are not relevant to the topic you are looking for. One way of the best ways of using keywords efficiently in a search is to use "Boolean Logic" in your key phrase, this can narrow your search excluding what you dont want, confine it to specific phrases, and extent it with options of different key phrases. I will elaborate on next.

3   Boolean Operators

While these seem to have got out of fashion in usage in modern search engines (Google, yahoo) as they get more sophisticated, in older search engines (webcrawler, Alta-vista) they were crucial for searching. However they logic is still there in the popular search engines and can be used to refine your search and deliver better search results.

Command	Usage	Description
AND	A AND B	Keyword A AND Keyword B
OR	A OR B	Keyword A OR Keyword B
NOT	A B NOT C	Page containing Keywords but NOT this keyword

Table 1: Boolean Logic in Searches

Be careful using the "NOT" command, since the word you think you want to exclude from a search may still be used (maybe in a context you haven't considered) somewhere on a page which may be relevant to your search. I find "NOT" very useful when most of the searches for a keyphrase return many web sites which you dont want and you can exclude most of these by using a "NOT" command where you know a word is on these pages but not on pages regarding the topic you are searching for.

The use of "-" can be used in place of "NOT", also spaces between to keywords imply "AND". Search Engines are clever now that they will initially search for the order keywords are placed before trying sequences of the keywords

A "+" can be used to make sure that two keywords(or more) are used as a key phrase to search with.

4 Google Search Box Commands

There are a number of commands which you can use within a your search box to describe what type of result you are looking for or where and what you are searching for with your search keywords. for example intitle: Indoor Soccer will search for the keywords "Indoor Soccer" in the Title tag of a web page. There are a number of others which I list here in Table 2 and can be used to refine your search and filter out more precisely what you are searching for.

Command	Usage	Description of Result
intitle:	intitle: Algorithm	search pages with "Algorithm" in the Title Tag
intext:	intext: Finite Difference	search the text of the web pages for "Finite Difference"
inurl:	inurl: Relaxation Algorithm	search urls containing "Relaxation Algorithm"
inmeta:	inmeta: Relaxation Algorithm	search pages whose meta data contain "Relaxation Algorithm"
daterange:	World Cup daterange: 1994-06-01..1994-07.31	Returns pages on "World Cup" published with in the date range
define:	define: calculus	Returns pages defining "calculus"
cache:	cache: Final Report	search the cache for web pages containing the keyword
link;	link:www.mysite.tv downloads	sites which link to mysite which contain the keyword
site:	site:www.mysite.tv downloads	Pages and Documents on mysite which contain the keyword
info:	info:www.nuim.ie	- Show Google's cache for www.nuim.ie - Search for pages similar to www.nuim.ie - Find web pages are linked to www.nuim.ie - Find web pages from the site www.nuim.ie - Find web pages containing the term "www.nuim.ie" found
filetype:	filetype:pdf Report	PDF documents with "Report" in the URL

Asterix "*"	Finite * Method	Wildcard will return a search for words which fit in within the search phrase
Tilde "~"	˜guitarist	Returns searches for words similar to the keyword

Table 2: Google Search Commands

The command i find most helpful is the filetype: since i often know there is a PDF or PowerPoint document online on a topic and so i find it useful.

Another guideline is if you are looking for a video, or image, then go to the specific pages in the search engine for Video or Images, rather than using the generic search page.

5 Yahoo Tips and Tricks

Similar to Google the former king of search Yahoo also use search commands and boolean logic to refine search. The same rules apply to yahoo when you want an exact phrase use quotation marks e.g. "Relaxation Algorithm". Table 3 lists most of the common yahoo search commands.

Command	Usage	Description of Result
site:	site: mysite.tv	Returns all pages/documents within the domain and sub domain.
url:	url:http://www.mysite.tv/report.pdf	Finds a specific document int he yahoo index.
intitle:	intitle:Relaxation	Returns pages with the keywords in the Title section.
news:	news:Fuel Prices	will return news pages for the keywords or phrases you search.
images:	images:Linux logo	will return images for the keywords or phrases you have searched.
"+"	Relaxation + algorithm	Returns pages with the keyword relaxation and algorithm on them
"-"	Blackrock - College	Returns pages with the keyword Blackrock but not with the word College on the page.

Table 3: Yahoo Commands in Searching

5.1 Yahoo Shortcuts

A recent development (in 2007) in Yahoo Search is the use of **Shortcuts** for quicker searching and navigation, while there are generic ones for popular websites and searches, which i list here in Table 4 you can also define your own for your most searched sites.

Shortcut	Description
!amazon	will search amazon.com for the keywords you enter after cut
!audio	will search yahoo for audio files
!ebay	will search ebay for the keywords you enter after the shortcut
!flickr	will search flickr for the keywords you enter after the shortcut
!images	will search yahoo images for the keywords you enter after the shortcut

!mail	will search your yahoo mail for the keywords you enter after the shortcut, or can launch the yahoo mail application if you enter an email address after the shortcut.
!mysp	will search your MySpace for the keywords you enter after the shortcut
!news	will search yahoo news for the keywords you enter after the shortcut
!video	will search yahoo video for the keywords you enter after the shortcut
!wiki	will search yahoo wikipedia for the keywords you enter after the shortcut

Table 4: Yahoo Shortcuts

Again while I seldom use Yahoo and its Shortcuts they are straightforward enough and if you are looking for example a book on Amazon or something on eBay why not use the shortcut rather than getting a pletora of irrevelant results from searching.

Create your own Yahoo Short cuts To create your own yahoo shortcuts you should sign into your yahoo account (or register if you don't already have one), you can then set up a number of personalized shortcuts for you to use or navigate to or search online resources you regularly use.

e.g.

```
!set wio http://www.weatherforecastmap.com/norway/oslo
```

will result in a shortcut !wio being available to you to quickly link to the site you set.

6 Other Uses

Other facilities which search engines are very good at is being an Online calculator, or weights and measures converter.

6.1 Calculator

By just keying into Google the sum you wish to calculate into the search box it will be outputted, make sure you use the correct precedence, and use brackets accordingly, e.g. 20 - 1 + (74/2) + 2 * 6 will result in "20 - 1 + (74 / 2) + (2 * 6) = 68" being returned.

6.2 Weights and Measures Conversion

Another example is using Google as a weights and measures converter e.g. searching for "23 Celsius in Fahrenheit" results in "23 degrees Celsius = 73.4 degrees Fahrenheit" being returned along with other conversion links, or searching for "30cm in inches" will return "30 centimeters = 11.8110236 inches".

Using Yahoo conversion is similar e.g. "convert 23miles to kilometers" or "convert 99 euro to norwegian krone" (I use www.xe.com for currency conversion). If your converting temperatures use "*" for degrees e.g. "convert 23* Celsius to Fahrenheit" will return "23 Celsius = 73.4 Degree Fahrenheit".

7 Conclusion

In summary when searching for something online, it is best to use appropriate keywords and keyphrases in your search, and if you can refine your search using quotes, boolean logic, search engine commands you shall get salient results quicker, and without the clutter of irrelevant results.

References

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[2] Tara Calishain and Rael Dornfest, *Google Hacks*, O'Reilly, 2005.

[3] Yahoo, *Yahoo Help, Tips for Using Yahoo!*, `http://help.yahoo.com`.