Extreme Googling! - Advanced Internet Searching

How to do a Google Web Search
Search using Google at: www.google.com

- Type Google's web address into the Address Bar of your Browse The web address of Google is www.google.com

Before you begin searching – think about your search query

Search Tips

- Identify Keywords, variations in keywords , plurals
- Extra words – synonyms
- Related words (words located next to each other use " " quotation marks)
- Searching for recent Information – consider using a "date range" search or a "News" search.
- Check spelling – different spelling (English vs American)

A Search Engine is made up of 3 parts.

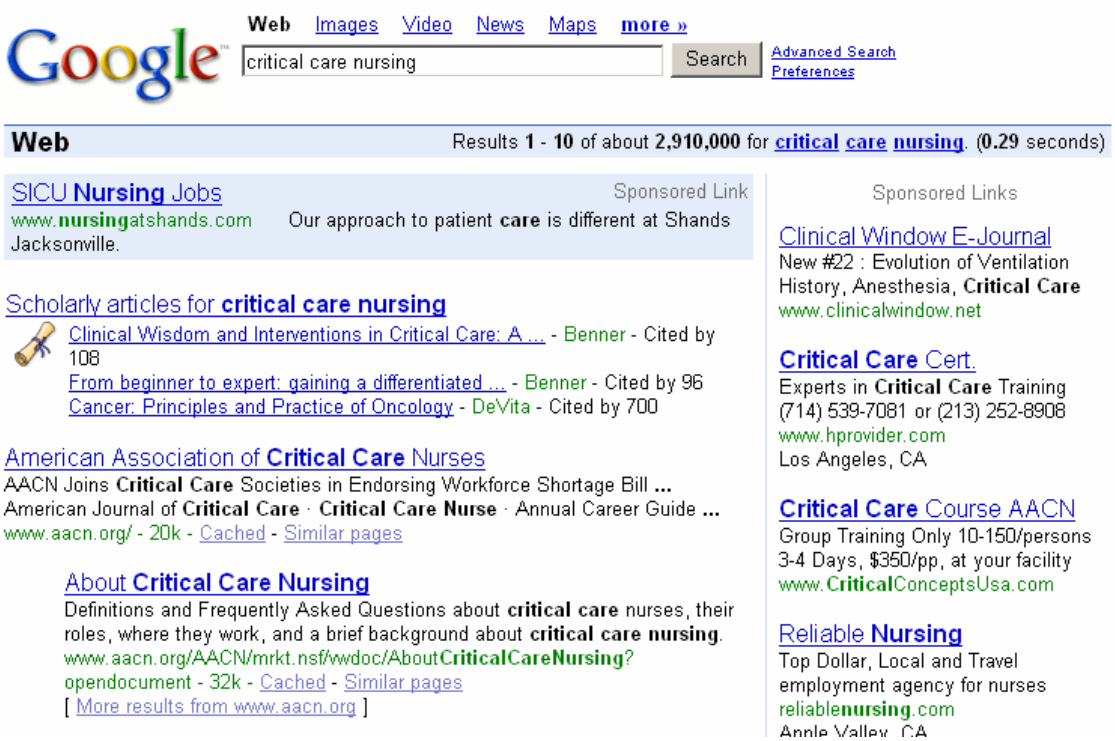
1. Computer program – called web crawler, web spider – this searches web pages on the internet, collects the information & takes it back to its index.
2. Index –Google then creates an Index from the information that it's crawlers have found.
3. Interface – What you see on your screen – The Google search page with text box. (see image above)

When you search Google you are actually just searching the Index of Google and NOT the Internet. That's why different search engines produce different search results. Each Search Engine is just searching its own index.

Example of a search record for the term **critical care nursing**. Note the search terms appear in bold.

Explanation of a search record

1. Title of the website/webpage (blue & underlined – click on this link to go to the website)
2. 2 line description of the site. (black)
3. Web address of the site & size of the webpage (green)
4. Cached: shows what the original webpage looked like when visited by the "web crawler" (blue & underlined)
5. Similar pages: shows other similar websites to site listed. (blue & underline)



How Google displays search results

By default Google will display 10 search results at a time.

- Google Displays 10 results at a time
- Order of the words can effect the results- place more relevant words first
- Google will search for phrases first
- Beware of Sponsored links when viewing your results – these are websites that pay to appear on the page.
- The order your results are displayed by is worked out by algorithms/formulas developed by Google

  - How close the words appear to each other
  - Where on the page the words appear
  - How often on the page the words appear
  - Many other secret variables

Refining your search

To further refine your search you may want to add extra words. Adding extra words will reduce the number of sites you find. Google uses the default Boolean term AND.

A search using Google for: critical care nursing will produce millions of search results in Google, but by adding the extra words “education” and california” and searching for critical care nursing education in California in Google will produce less hits because ALL of the words have to be found on the same webpage.

Phrase Searching
Search for words that appear next to each other by using a “phrase search”. Phrase searching uses “ “ quotation marks.

- **“critical care nursing”**
- **“nursing education” simulation**

Phrase searching is good for searching for information where words appear next to each other. Song lyrics, literature – Poetry, Prose

- **“family nursing practitioner” california**
- **“nursing curriculum” video**
- **“university of california” anteater**
- **"undergraduate education" nursing**

Field Searching
When search engines index web pages they look at where the words appear in a webpage and these different areas can be searched by using various prefixes before a word or phrase.

Use following prefixes can be used before your search term when searching

intitle:	intext:	site:
allintitle:	allintext:	inurl:

Title Searching.
You can search in the title field of a webpage by using the intitle: prefix

Examples

- **intitle:“physician’s advisory”**
- **intitle:”evidence based practice”**

Note: When searching using the intitle: make sure there is NO space between the “full colon” and the word you are searching for. See example.

Refining your search
To further refine your title search you may want to add extra words & phrases to your search query.

- **intitle:”evidence based practice” “nursing” California**
- **intitle: “evidence based practice” resources “by title”**

Search all words in the title
Search all words in the title by using the allintitle: prefix

- **allintitle: “evidence based practice” “nursing education”**

Capitalization
Uppercase or lowercase it makes NO DIFFERENCE when searching using Google.

Search Tips when using Google
To view other search tips click on the Search Tips link at the bottom of the search page or type in the following web address http://www.google.com/help/

Site or Domain Searching
Search within a website by using the site: prefix. Use the prefix site: in combination with a web address, to search within that website.
Examples

- **site:www.lib.uci.edu nursing**
- **site:www.lib.uci.edu “allied health”**
- **site:www.lib.uci.edu ebm**
- **site:www.lib.uci.edu “evidence-based practice” "nursing"**
- **site:ncbi.nlm.nih.gov ”evidence based practice” “nursing” California**
- **site:medical.lib.uci.edu “evidence based medicine”**
- **site:medical.lib.uci.edu nursing**

Different types of websites.
Most common type of website (commonly used domain types in United States)

.gov government	**.org** organization	**.edu** education
.com commercial	**.net** network	**.info** information websites

Other TOP level domains frequently used include:

.aero air transport industry	**.biz** businesses	**.coop** for co-operatives
.tv television	**.mobi** mobile industry	**.id** individual
.mil military	**.museum** for museums	**.tv** television

Search by website type
Search by type using the site: prefix

- **“evidence based method” site:edu**
  Search above will search for websites that contain the phrase “evidence based method” BUT only Education websites.
- **“evidence based method” site:gov**
  Search above will search for websites that contain the phrase “evidence based method” BUT only government websites

Search by country using the site: prefix
Many web addresses end in a country code. Google can search within a country by specifying the country code in the site: field

Examples:
- **"nursing education"site:ca**
- **"nursing education"site:mx**
- **evidence-based medicine site:uk**
- **evidence-based medicine site:ca**

To find the country codes do the following search in Google:
- **"country codes" "domain name"**

Exclude a type of website using the –site: prefix.
- **"clinical practice guidelines" -site:com**

This type of search will find websites with the phrase "clinical practice guidelines" but NOT any .com OR Commercial sites

Search in the URL field (similar to site: searching)
Search using the inurl: prefix
- **inurl:medical**
- **inurl:ncbi**

This type of search will search for your terms within the whole web address of the website not just the domain name part of the web address. Good to use if you do not know the exact web address.

Search for related websites
To find websites that are similar or "related" to a website you already know about, use the prefix related:
- **related:www.gml.uci.edu**
- **related:medical.lib.uci.edu**
- **related:ncbi.nlm.nih.gov**

Web site information
To find information on a website such as type of website, who links to your site, websites that contain reference to your website, etc, use the prefix info:
- **info:www.lib.uci.edu**
- **info:medical.lib.uci.edu**
- **info:ncbi.nlm.nih.gov**

Synonym Search
If you want to search for a term and also its synonyms place a ~ in front of the search term. For example:
- **~ nursing**

will find websites which have the keyword(s) nursing, nursing baby and types of nursing

For a complete list of Advanced Operators (prefixes)
Go to http://www.google.com/help/operators.html

Find the definition of a term using Google
To find a definition of a term use the prefix define:

- **define:"evidence based medicine"**

Google Extreme! 5 things that you didn't know Google could do

1. Google is a mathematical calculator.

   Type your equation into the Google Search box and Google will calculate the answer.

   Multiplication
   - **45 x 17**

   Addition
   - **4 + 45 + 59 + 12 + 34**

   Division
   - **256/13**
   - **198 / 18**

   Subtraction
   - **256 – 56**

   Percentages
   - **45% of 140**

2. Google can calculate formulas and constants.
   - **Speed of sound**
   - **Speed of light**
   - **pi**

3. Google can convert/calculate measurements and distances.
   - **860 kilometers in miles**
   - **45 kilos in pounds**
   - **3/4 a cup in teaspoons**

Google is a dictionary
Get definition of words by typing the prefix define: before your word in the Google search box.

- **define:infarction**

Get definition of terms by typing the prefix define: before your term in the Google search box.

- **define:"evidence based medicine"**

Google is a tourist guide
Type in the name of any major capital city in the world or California and Google will provide links to dining, accommodation, sightseeing, etc.
Example:

- **Newport Beach**
- **Los Angeles**
- **San Francisco**

Google Advanced Search at: **http://www.google.com/advanced_search**?

To access the Advance Search function of Google, click on the Advanced Search tab from the Google Homepage. In Google's Advanced Searching you can select search criteria from pull down menus.

Find Results
Options include:

Type of search	**How it searches**
with ALL of the words (Default Search in Google)	same as using the AND Boolean search function
with the exact phrase	same as using the "quotation" marks
with at least one of the words	same as using the OR Boolean search function
without the words	same as using the NOT Boolean search function

Language
Specify the language of the web document you want to find by clicking on the blue arrow.

File Format
Search for particular types of files. Files that can be searched for include:

File extension	**What type of file it finds.**	**File extension**	**What type of file it finds.**
.pdf	Portable Document Format Need Adobe Acrobat to read these file types.	.xls	Excel documents
.ps	Adobe Postscript	.ppt	Powerpoint documents
.doc	Word documents	.rtf	Rich Text Format

File types can also be searched for in basic Google using the filetype: prefix

Searching for pdf files and PowerPoint presentations

Many user manuals for products exist on the Internet in a pdf format. Use this file format to search for manuals. Powerpoint presentations are sometimes posted for teaching and conference programs.

- **"nursing education" +simulation filetype:pdf**
- **"nursing education" +simulation filetype:ppt**

Date range searching
Finding up-to-date information use Advanced Search in Google by selecting a date range.

> Example: "nursing education" BUT ONLY webpages from Education websites and only websites updated/checked in the LAST THREE MONTHS

Occurances
Allows you to search for where the term or phrase appears in the webpage.

Type of Search	Equivalent search in Basic to
anywhere in the page	typing a word in the text box
in the title of the page	using the intitle: prefix
in the text of the page	using the intext: prefix
in the URL of the page	using the inurl: prefix
in links to the page	using the link: prefix

Page Specific Search
Similar
Type in a web address and search for websites similar to the page that you typed in.
This is equivalent to using the prefix ***related:***

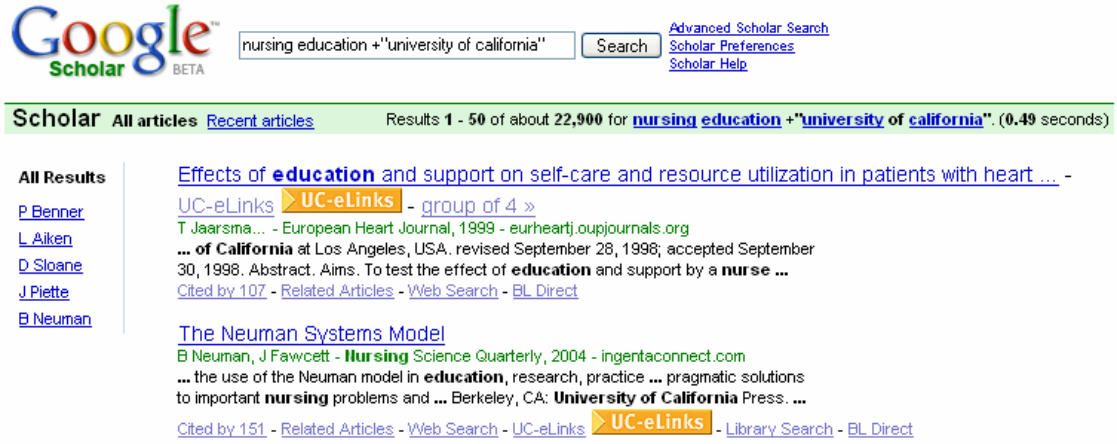
Links
Type in a website and see what other websites link to that specific website
Topic Specific Searches
Google Book Search at: http://books.google.com

Google is attempting with selected libraries and publishers to digitize many of the books that are now out of print, as well as parts of books that are still in print.
You can view "pages" of your favorite book.

- Google Scholar at: http://scholar.google.com/
- Search for academic papers by scholars from around the world.

Google Scholar Search

Google Scholar provides a simple way to broadly search for scholarly literature. From one place, you can search across many disciplines and sources: peer-reviewed papers, theses, books, abstracts and articles, from academic publishers, professional societies, preprint repositories, universities and other scholarly organizations. Google Scholar aims to sort articles the way researchers do, weighing the full text of each article, the author, the publication in which the article appears, and how often the piece has been cited in other scholarly literature.



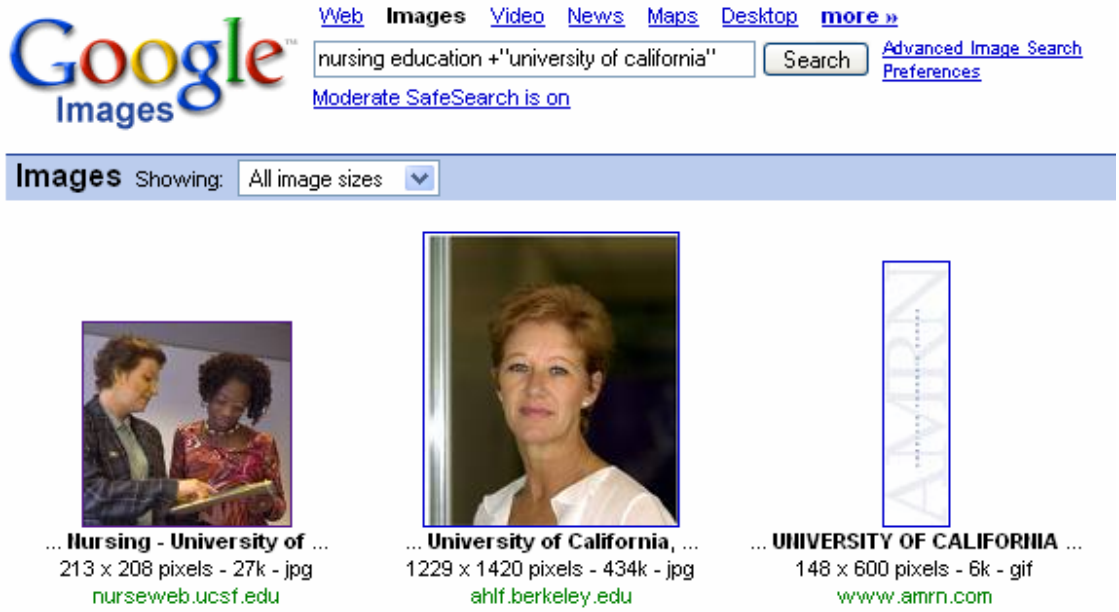
Google Video Search

Type in your search term and limit using any of the advanced search features to search for relevant results.

Google Image Search at: **http://images.google.com/**
Or Click on the Image tab on Google's Homepage
Type into the Google text box the image you want to search for.

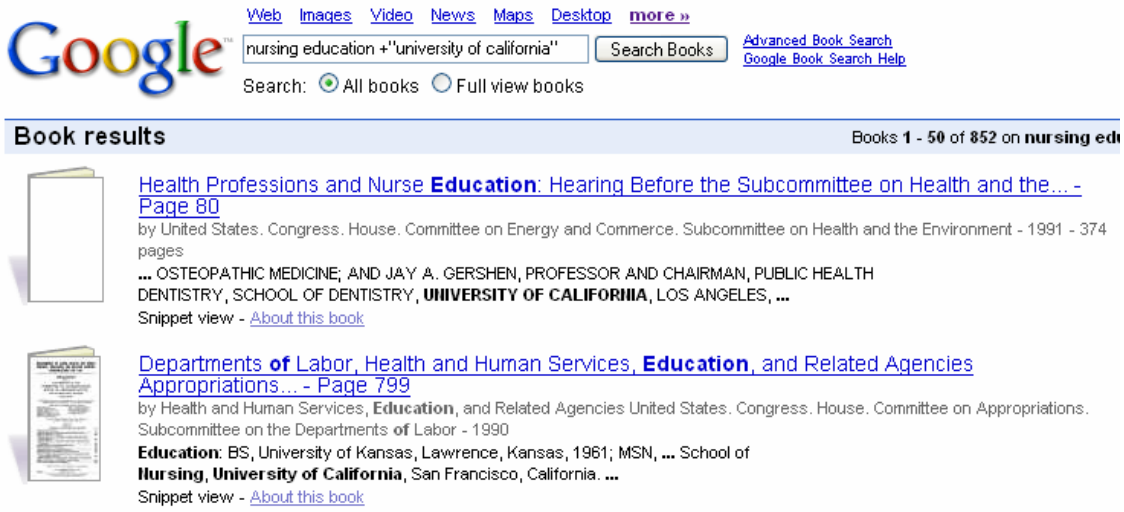
- **"Golden Gate Bridge"**
- **Golden Bear**
- **Newport Beach**
- **www.calisphere.universityofcalifornia.edu**

Type in your search term for words in the image title and limit using any of the advanced search features to search for relevant results. The results are not grouped by subject..



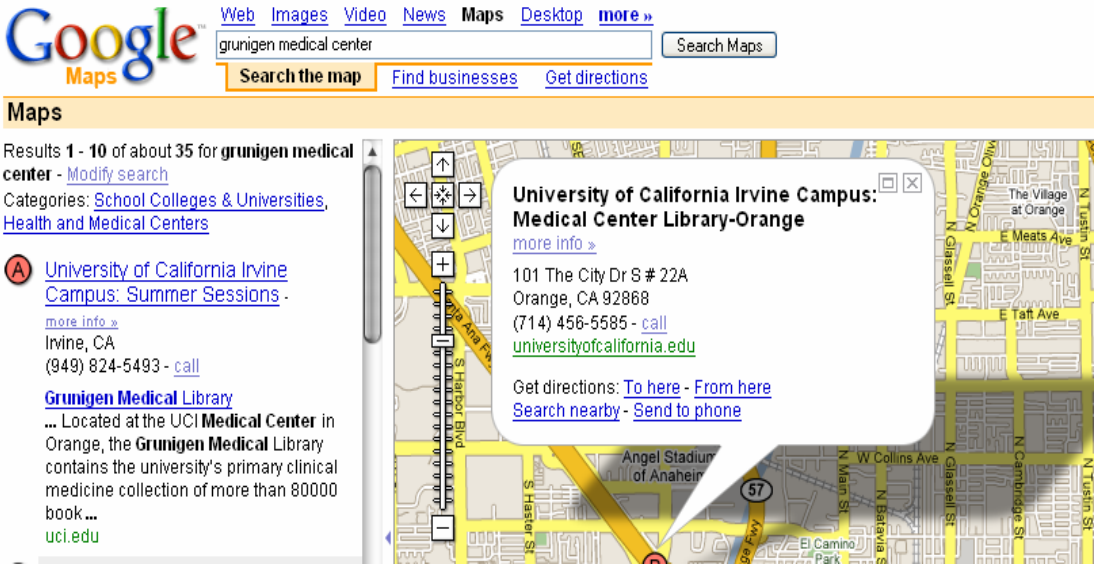
Google Books Search

Select the "All books" or limit to "full view books" to search for terms in full-text of scanned books. Each book includes an 'About this book' page with basic bibliographic data like title, author, publication date, length and subject. For some books you may also see additional information like key terms and phrases, references to the book from scholarly publications or other books, chapter titles and a list of related books.



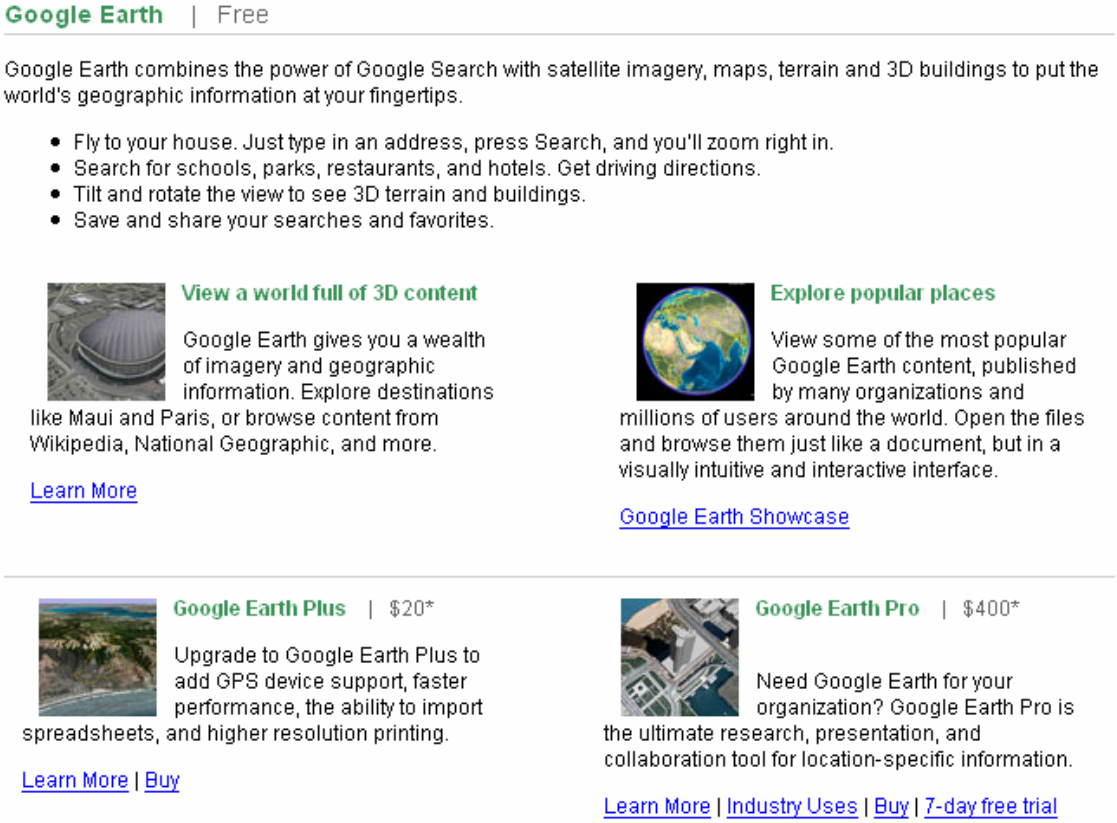
Google Maps Search

Type in a street address, intersecting streets, or place name in a search that combines user-friendly mapping technology and local business information-including business locations, contact information, and driving directions..



Google Earth Search

Combines satellite imagery, mapping, terrain and #D building with geospatial coordinates.



Google Patents Search

Google Patent Search covers the entire collection of patents made available by the USPTO—from patents issued in the 1790s through those issued in the middle of 2006. All patents available through Google Patent Search come from the United States Patent and Trademark Office (USPTO). Patents issued in the United States are public domain government information, and images of the entire database of U.S. patents are readily available online via the USPTO website.

Other Google Services

Froogle at www.froogle.com – search for goods or products.

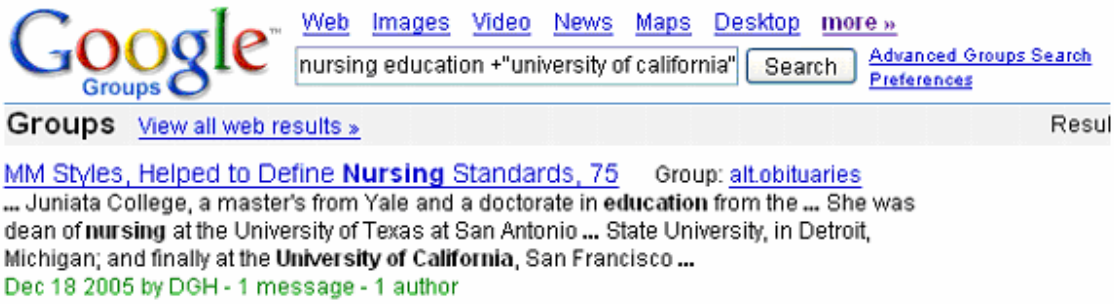
- Google Groups at: **http://groups.google.com** Usenet discussion groups.
- Google Labs at: **http://labs.google.com** Future Google products & services.

Google Groups

Google Groups are a collection of User Groups classified by Subject which can be searched. Post questions on topics and get email "responses"
Search Google Groups at: **http://groups.google.com/grphp?**

What the Google Groups Homepage looks like

• Topics where you can post or read comments about various topics



Google News
Google News has links to 4,500 news service which can be searched.

- Topics updated continuously throughout the day.
- Selected by computer
- Good to use to compare newspaper articles

Google News Search
Search Google News at: news.google.com
To access Google News:

1. Click on the News Tab
2. Type the address of Google News into the Address Bar of the Browser.
3. Type in your search query into the text search box

Example searches to practice

- **Nursing Education California**
- **"global warming"**
- **Interest rates California**

Sort news stories by Date
Click on the Sort by Date link. The search results will be display in date order. This helps you to see any developments in a story.

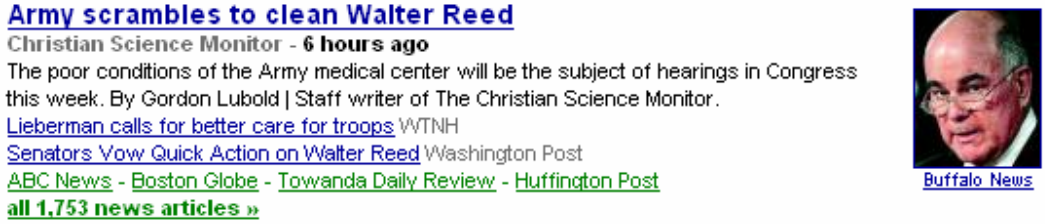
Sort news stories by relevance
Click on the Sort by Relevance link. The search results will be displayed in order
based on importance.

Google news stories go back **30 days.**

Californian News Stories
Left Hand Side of the Google News Homepage is a Navigation Bar for Google
News where you can search for news stories on the following topics.

Californian News Content
To view Californian News Content
click on the Link on the Navigation Bar on the Left hand Side

How records are displayed in Google News



Explanation of example record above

- Title of the webpage (blue & underlined type). To view full version of the story click on the link.
- Name of the news service responsible for the news story. (grey type)
- Time the story was displayed (black type IN BOLD)
- Description of the story (black type)
- Other related News stories (in blue type & underlined).
- Other related stories (in green)

Google Subject Directory

To access Google's Subject Directory click on "more" from the home page of Google then click on the Directory link on the webpage. Google Directory will then display. To access the directory page directly type in the web address **http://www.google.com/dirhp?**

The Google Directory Homepage looks like this

16 main subject categories in the Google Directory.

Subject categories are broken down into further categories.
Each subject category has sub categories/topics, with sub-categories list under each category. For example under the subject category: Recreation there are 43 sub-categories including the category Food. Under the category "Food" there are 26 further sub-categories including the subject category Magazines
Advantages of Subject Directories

- Help direct you to where you want to go
- Not good at searching – easier to use
- Search with categories – by using the search text box.
- Related Categories help you find more information

Google Directory Search (keyword search)
Search Google's Subject Directory Categories by typing in what you want to search for into the text box above the Subject Categories.

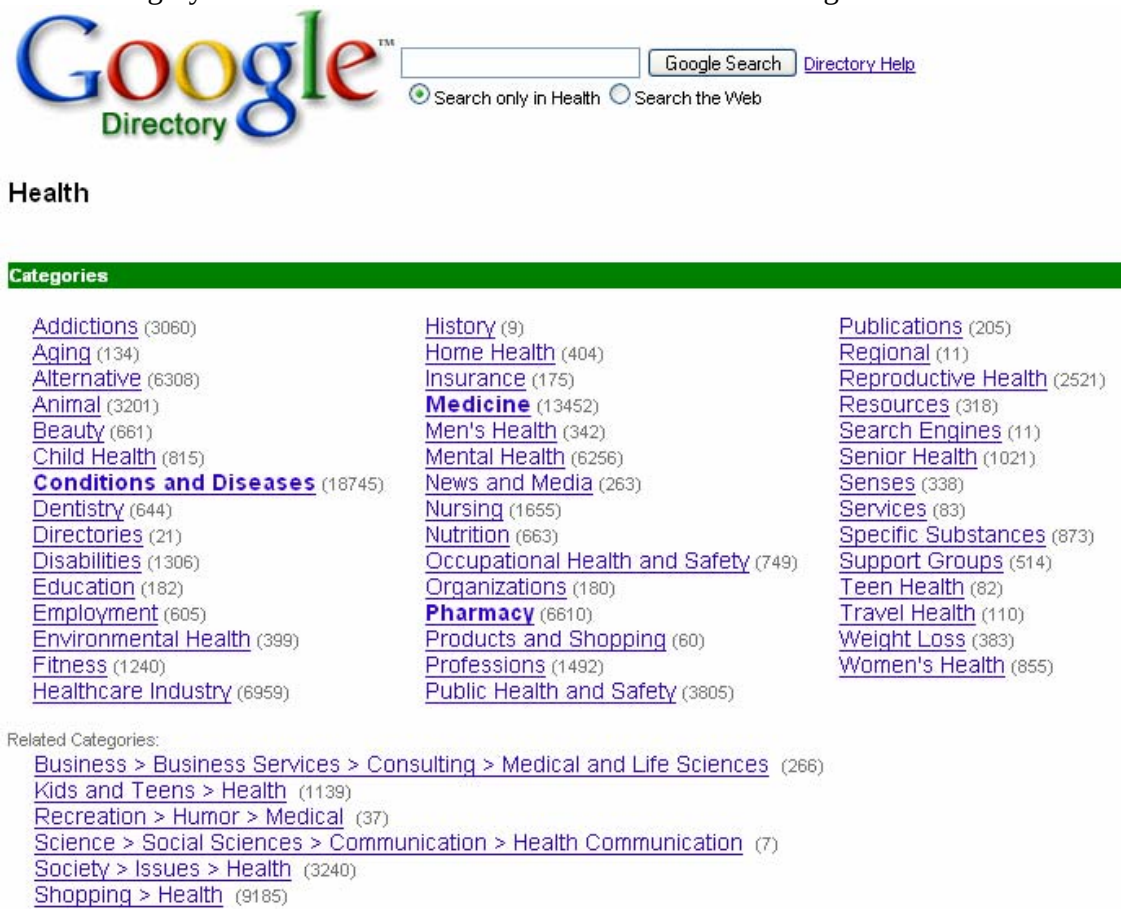
Search Options - Searching within categories
You can search ***only within a category*** OR ***search the whole directory*** – click on the radio button

Directory Help
Click on the **"Directory Help"** link for notes on how Google Directory works.

Google World Directory Search in a specific language
Select the World category from the Home Page, and then select the language that you want to search from the languages available.

Example of the Chinese (Traditional) directory
Note: that all the categories, topics, search buttons, etc are in Chinese (Traditional).

Related Categories
Google will display any related categories that are related to the category that you have selected. For the category *Health>Conditions and Diseases* the related categories are:



To search a related category
To search a related category click on the related category hyper link (in blue)

For a complete list of Advanced Operators (prefixes)
http://www.google.com/help/operators.html

Internet Archive WayBack machine : (http://www.archive.org/index.php)
WayBack machine (to locate stored version of webpage from the past)

Contact: Mitchell C. Brown, Research Librarian for Chemistry, Earth System Science, and Russian Studies
University of California, Irvine – email: mcbrown@uci.edu (April 11, 2008)

Developed from: "Google Extreme! - Advanced Internet Searching"
URL: http://www.charlessturt.sa.gov.au/Portals/0/Google%20Extreme%20jan2007.pdf (Accessed 7 March 2007)