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GOOGLE FOR RESEARCH: TIPS & TRICKS FOR EXPERT SEARCHING

KEEP IT SIMPLE

	FUNCTION	NOTES
Use lower case letters.	The Google search engine is not case sensitive.	
Leave out punctuation.	Google ignores most punctuation marks.	A couple of punctuation marks are actually query modifiers that can alter search results.
No need to connect terms with AND.	Google's relevancy ranking puts results that contain all search terms towards the top of the results list.	The Boolean AND does not function in Google as it does in many databases and search engines.
Enter search terms in singular forms.	Through a process called stemming, Google automatically tries to find all forms of words.	Word truncation does not function in Google. If all word variants are not retrieved, connect word with OR (see below).

BROAD SEARCHING

	FUNCTION	NOTES	EXAMPLE
OR	Connects keywords to retrieve results using terms on either side.	Excellent strategy to retrieve results for synonyms or words that are closely related in meaning.	avian OR bird
~	Use the tilde (~) to find words with similar meanings.	Does not work consistently for all words.	~bird
( )	Enclose each concept in parentheses, with OR connecting similar words.	Google search for the terms within the parentheses first before combining with terms outside the parentheses.	(flu OR influenza) (avian OR bird) (outbreak OR incidence OR case)

TARGETED SEARCHING

	FUNCTION	NOTES	EXAMPLE
Add additional keywords.	More keywords create additional criteria for the search results.		china (flu OR influenza) (avian OR bird) (outbreak OR incidence OR case)
" "	Enclose multiple words in quotation marks to search those exact words in that exact order.	Phrase searching works well for names, titles and terms that include multiple words.	"stem cells"
*	Use the asterisk to fill in the blank if the intervening word is unknown.	Works well when one doesn't know if a person uses a middle initial.	(influenza OR flu) (avian OR bird) "charles * smith"
..	Connect two numbers with three dots to search for a range.	Quick and dirty way to find more recent pages.	2005..2009 (influenza OR flu) (avian OR bird)
intitle:	Finds words in the titles of Web pages.	No space between **intitle** and the colon.	Intitle:china

TARGETED SEARCHING CONTINUED

	FUNCTION	NOTES	EXAMPLE
site:	Limits search results to those in certain domains.	Common domains include edu, com, org, gov, country codes (uk, ca, etc.).	(flu OR influenza) (avian OR bird) (outbreak OR incidence OR case) site:cdc.gov
-	Minus sign excludes keywords from search results.	Can also be used to exclude domains, e.g., site:edu.	football -dolphins
filetype:	Use to retrieve only certain filetypes.	Common filetypes include doc, xls, jpg, ppt, pdf, etc.	filetype:pdf site:cdc.gov (flu OR influenza) (avian OR bird) (outbreak OR incidence OR case)
author:	Searches for specified name in the author field.	Works ONLY in Google Scholar and Google Books.	author: "Charles Hugh Smith"
Advanced Search screen	It is possible to perform some of the above functions using the Advanced Search screen.	Works well in Google Scholar, Google Books and Google Patents.	

SPECIALIZED GOOGLE SEARCH ENGINES

NAME	WHAT IT SEARCHES	TIPS	URL
Google	All kinds of Web sites.	Try the above query modifiers & commands to search more comprehensively and specifically.	http://www.google.com/
Google Scholar	Scholarly journals, books, conference proceedings, reports.	Connect your link resolver to Scholar citations: http://scholar.google.com/intl/en/scholar/libraries.html	http://scholar.google.com/
Google Book Search	Searches the full text of books scanned by Google.	Click on "Find this book in a library" to see which libraries own the book via Open WorldCat.	http://books.google.com/books
Google U. S. Government Search	Web sites published by federal, state and city government in the U. S. A.	Use this to find information on legislation, statistics, demographics and more from government sources.	http://www.google.com/unclesam
Google Patents	Includes the full text & drawings of all U. S. patents starting in the 1790s.	Use the Advanced Patent Search screen. Great for certain kinds of historical research.	http://www.google.com/patents
Google News	Aggregates articles from newspapers & other news publications from all over the world.	Try personalizing the page or creating news alerts on topics.	http://news.google.com/

FOR MORE INFORMATION

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