

Advanced Searching Techniques

Boolean Operators, Stop Words,
Truncation, Phrase Search, Word
Proximity, Reserved Words,
Punctuations, Prefix/Suffix fields

Boolean operators and truncation

Boolean Searching is a database search method based on the principles of Boolean logic, originally developed by the British mathematician George Boole in the mid 19th century. Boolean searching allows you to combine search terms in specific ways for effective matches.

Operator	Examples	Explanation
<p>AND</p> <p>Document must have both words (or both phrases)</p>	copyright AND moral rights	Will <u>narrow</u> your search because search results will include all documents that contain both the first term and the second term.
<p>OR</p> <p>Document can have either word (or either phrase)</p>	tobacco OR cigarettes	Will <u>expand</u> your search because search results will include all documents that contain either the first term or the second term or both.
<p>NOT</p> <p>Document must have first term. Must not have second</p>	love NOT war	Will exclude an idea/concept from your search because it will find documents that contain the first word, but do not contain the second.
<p>ADJ</p> <p>Forces the computer to search for words in a specified order</p>	obsessive adj compulsive	Will find results where <i>obsessive</i> immediately precedes <i>compulsive</i>
<p>NEAR</p> <p>Retrieves items that have both terms in the same sentence. You can add a number to near to instruct the computer to find results within those numbers of words in any order</p>	<p>alcohol near abuse</p> <p>alcohol near3 abuse.</p>	<p>This will retrieve results where alcohol is within 3 words of abuse.</p> <p>i.e., "Men who <i>abuse</i> their wives after<i>alcohol</i> consumption" or "Alcoholconsumption leads to <i>abuse</i>"</p>

Boolean Strategies

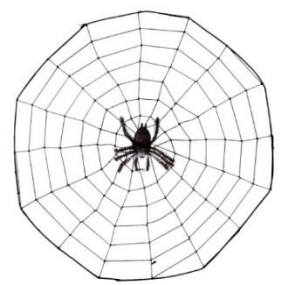
- If you are retrieving too many records on your topic, try adding another search term with the connector AND.
- If you are retrieving too few records on your topic, try adding another search term with the connector OR.
- If you are retrieving too many records on an unrelated topic, try eliminating a word with the connector NOT.

Advanced Search Techniques for Web Searching

Using **advanced search techniques** when searching the **web** is even more important because you are sifting through so much information.

Some of the techniques used for searching the web versus library catalogs and article databases are **different**.





Web Searching Advanced Search Techniques

- Use **quotation marks** to search for phrases
- Use the **minus (-) symbol** in front of a word to exclude it
- Use the **advanced search screen** to help refine your search
- Be **very specific**
- Search in **appropriate domains** (.com, .edu, .gov)

Minus Symbol (-)

Sometimes when searching the web, the computer displays lots of results that are not on your topic.

For example, you want to find information on laser surgery, but most of the search results are pulling up LASIK. To remove these hits, search for: “laser surgery” -LASIK



Advanced Search Screen

Like article databases, most search engines have an **advanced search screen**. This screen offers many options to help you refine your search.

Google's Advanced Search Screen

The image shows the Google Advanced Search interface. At the top is the Google logo and the text "Advanced Search". On the right, there are links for "Advanced Search Tips" and "About Google". Below the header is a search bar with the placeholder text "Use the form below and your advanced search criteria".

The main section is titled "Find web pages that have...". It contains three input fields with callouts:

- Boolean AND**: Points to the first input field for "all these words:".
- Phrase Searching**: Points to the second input field for "this exact wording or phrase:".
- Boolean OR**: Points to the third input field for "one or more of these words:", which is preceded by "OR" and followed by another "OR" and a fourth input field.

Below this section is "But don't show pages that have..." with an input field for "any of these unwanted words:" and a "tip" link.

The "Need more tools?" section includes:

- "Results per page:" with a dropdown menu showing "10 results".
- "Language:" with a dropdown menu showing "any language".
- "File type:" with a dropdown menu showing "any format".
- "Search within a site or domain:" with an input field.

At the bottom left, there is a link: [+ Date, usage rights, num](#). A callout **You can also search a specific domain such as .edu, .com, or .org.** points to the "Search within a site or domain:" input field.

Another callout **Boolean NOT (or minus symbol)** points to the "File type:" dropdown menu. A second callout **This option lets you select a specific file type such as pdf, doc, or ppt.** also points to the "File type:" dropdown menu.

At the bottom right is a button labeled "Advanced Search".

Be Very Specific

Library catalogs and article databases have a **limited** amount of information. The web is virtually **limitless**. To pull up the most relevant information when searching the web, you need to use **lots** of terms related to your research question.

Domain Searching

Finally, when searching the web, it is often helpful to limit your results to a specific domain.

The domain of a web site indicates the type of organization or geographic region from which the site originates. Helpful domain limiters include:

- .edu-education
- .gov-government,
- .mil-U.S. military,
- .org-organization
- .com-commercial

To limit your search to a specific domain type

- Add *site:domain* to your search.



- Or use the *advanced search* option and type in the domain.

A screenshot of the "Need more tools?" section of the Google search interface. It contains several dropdown menus: "Reading level:" set to "no reading level displayed", "Results per page:" set to "10 results", "Language:" set to "any language", and "File type:" set to "any format". The "Search within a site or domain:" field is highlighted with a red rectangular box and contains the text "edu". Below this field, there is a small text example: "(e.g. youtube.com, .edu)".

Doing More with Google

- **Identify Local Time for Any City in the World using Google just type “time in Pakistan”**
- **Use ~ for synonym search**
- **Match Any Single Word in the Search Using ***

For example, if you want to search for examples of vim substitution, and you are not sure whether to search for “vim editor *find* and replace examples”, or “vim editor *search* and replace examples”, then use *, which will match either *find*, *search* or any other word, as shown below.

[vim editor * and replace examples](#)

- **Identify Definition a Word : i.e define logic**
- **Mathematical Calculations**
- **Unit Conversion i.e currency conversion**
- **Local weather: ie weather Bahawalpur**

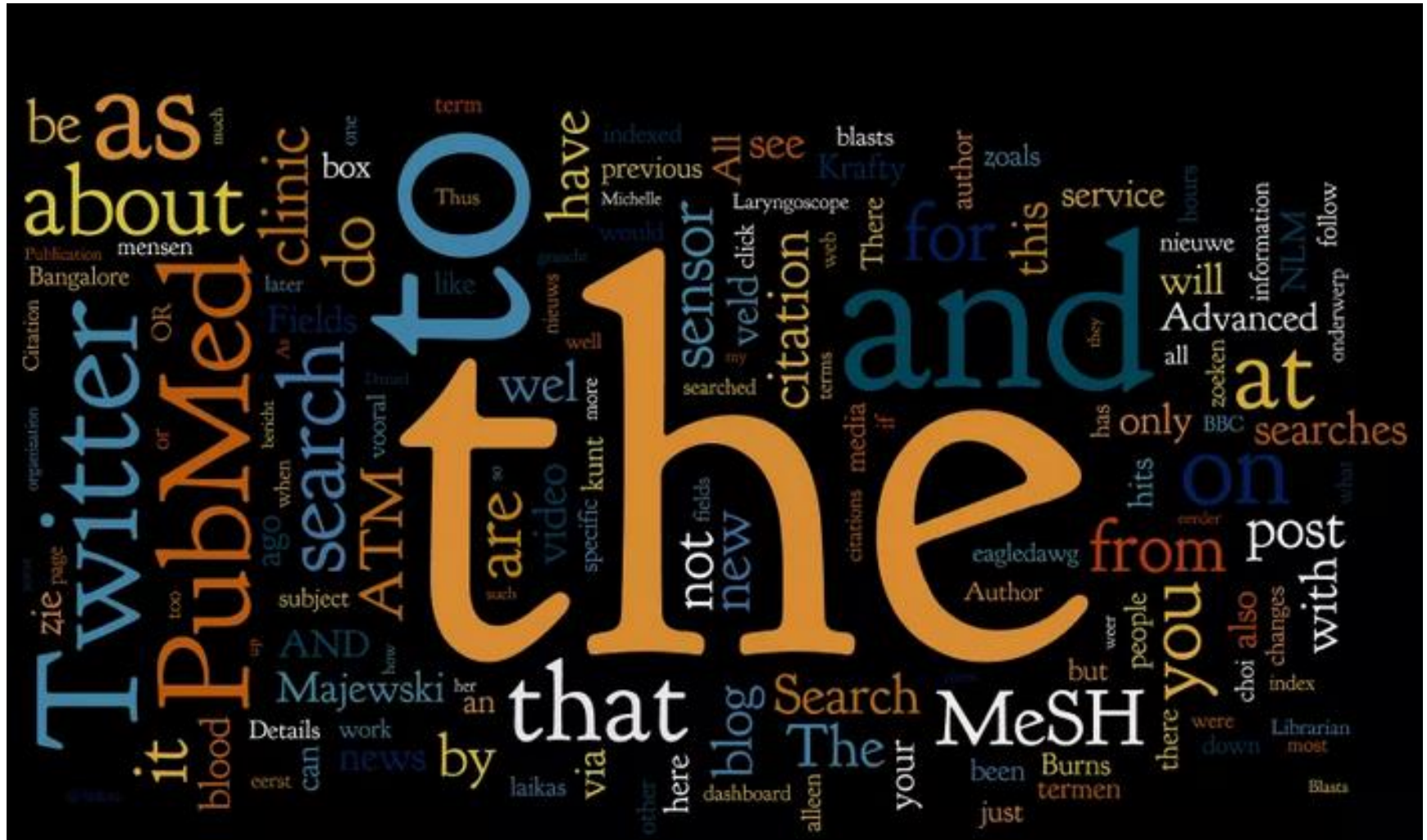
Summing Up

Using advanced search techniques when searching **library catalogs**, **article databases**, and **web search engines** will help refine your search. They will help limit the number of search results, and the results found should be more **relevant** for your research question.

Stop words

- **Stop Words** are words which do not contain important significance to be used in Search Queries. Usually these words are filtered out from search queries because they return vast amount of unnecessary information. A better definition is provided below:
- “**Words that do not appear in the index in a particular database** because they are either insignificant (i.e., articles, prepositions) or so common that the results would be higher than the system can handle (as in the case of IUCAT where terms such as United States or Department are stop words in keyword searching.) Stop words vary from system to system. Also, some systems will merely ignore stop words where use of stop words in other systems will result in retrieving zero hits. ”

Stop Words



<http://xpo6.com/list-of-english-stop-words/>

For example, if you entered **company of America**, the search engine will return **company of America**, **company in America**, or **company for America**. It will not return **company of the America**, because the search engine retains a word distance.

- Additionally, if you enter two stop words, the search engine will find any two stop words in their place. For example, if you searched for **company of the America**, EBSCOhost would return any two words in the place of the stop words.

Notes on searching with stop words:

- When a phrase is enclosed by double quotations marks, the exact phrase is searched. If a phrase contains stop words, the stop words will not be searched, but the searchable words will be searched in the order as entered.
- A stop word will not be searched for in an EBSCOhost database, even if enclosed in double quotation marks.
- A search query with stop words only (i.e. no other terms) yields no results.

Phrase Search

- **Phrase Searching** means searching for two or more words as an exact phrase.
- In order to search for an exact phrase you must enclose the words of that phrase in quotation marks or make the appropriate choice on the database search page:
- Examples of phrase searching:
 - “Library and Information Science”
 - “LIS Research Culture”
 - “HEC Digital Library”
 - “Innovative library services”
 - “Library Research in Pakistan”

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About 5,500 results (0.41 seconds)

Library Research Providers. Dealers, wholesalers in ...

www.findpk.com/yp/yellow-pages-of-Pakistan.asp?Function...1... ▾

Records 1 - 10 - Find [LIBRARY RESEARCH] in Pakistan Exporters Directory. Find [LIBRARY RESEARCH] in International Buyers Directory. If you can't find ...

Library Research Providers. Dealers, wholesalers in ...

www.findpk.com/yp/yellow-pages-of-Pakistan.asp?...Alpha...

Find [LIBRARY RESEARCH] in Pakistan Exporters Directory. Find [LIBRARY RESEARCH] in International Buyers Directory. If you can't find your desired ...

Published Works of Prof. Dr. Syed Jalaluddin Haider: a ...

www.academia.edu/.../Published_Works_of_Prof._Dr._Syed_Jalaluddin... ▾

98-101 Status of Library Research in Pakistan. Libri. 28(4): 326-337, 1978

Teaching of Cataloging and Classification in Pakistan. Cataloging & Classification ...

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www.webpages.uidaho.edu/~mbolin/naseer-mahmood.htm ▾

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Library literature in Pakistan. International Library Review 20 : 65-100. Kajberg ...

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Haider, S. J. (1978). State of **library research in Pakistan**. Libri. Vo. 28, no. 4:pp326-

337. Haider, S. J. (1993). "Acquiring foreign materials for Pakistani libraries: ...

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[PDF \(119 KB\) - Emerald](#)

www.emeraldinsight.com/doi/pdfplus/10.1108/00242530710750590 ▼

by S Jalaluddin Haider - 2007 - [Cited by 23](#) - [Related articles](#)

Haider, S.J. (1978), "Status of **library research in Pakistan**", Libri, Vol. 28 No. 4, pp.

326-37. Haider, S.J. (1987), "The Department of Library and Information ...

[Status of Library Research in Pakistan - ProQuest](#)

search.proquest.com/openview/afc142e4bb20c8e556af68aaa1743f0e/1?...

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Status of **Library Research in Pakistan** by SYED JALALUDDIN HAIDER **Library**

research in Pakistan is assuming much greater importance in the developing ...

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Status of **library research in Pakistan**. Libri, 28(4), 326-337. Hernon, P. (1999).

Editorial: Research in library and information science - Reflections on the.

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digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1723&context... ▼

by R Ahmed Samdani - 2011 - [Related articles](#)

Nov 1, 2011 - State of **library research in Pakistan**. Libri. Vo. 28, no. 4:pp326- 337.

Haider, S. J. (1993). "Acquiring foreign materials for Pakistani libraries: a.

Word Proximity

- Proximity operators search for **words or phrases that occur near one another**. They operate very differently depending on the system. NEAR doesn't typically take a parameter, but W/# is followed by a number (#) indicating how many characters can separate the two terms. Google's uses AROUND(#) takes a number indicating how many words can separate the terms.

Example of word proximity using AROUND in Google

"steve jobs" AROUND(3) "andy rubin"

About 582,000 results (0.24 seconds)

[Andy Rubin Has Some Steve Jobs In Him - washingtonpost.com](#) ☆ 🔍

5 Jan 2010 ... Andy Rubin , pictured above surrounded by press after the Nexus One event today, is the guy who founded Android and sold it to Google in ...

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Proximity search example in Google



site:lifehacker.com Wi-Fi AROUND(1) SSID

About 541 results (0.35 seconds)

Everything

Images

Videos

More

Pasadena, CA

Change location

Show search tools

► Did you mean: [site:lifehacker.com Wifi AROUND\(1\) SSID](#)

[highlights - Lifehacker](#) ☆ 🔍

This week we beefed up your Windows 7 system, looked into whether hiding your **Wi-Fi's SSID** is really worth it, and got more done on your smartphone. More » ...

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Oct 3, 2007 ... **Wi-Fi** security isn't very secure at all, but if your access point is ... Turn off **SSID** broadcasting, which will keep regular old laptops and ...

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Aug 19, 2009 ... Here are some tried and true ways to find and get free **Wi-Fi**. ... including "hidden" **SSID's** your PC might not detect otherwise. ...

[lifehacker.com/.../the-definitive-guide-to-finding-free-wi-fi](#) - [Cached](#) - [Similar](#)

Reserved word

1. Often found in programming languages and macros, **Reserved words** are terms or phrases appropriated for special use that may not be utilized in the creation of variable names. (use for unique and specific meaning)
2. **Reserved words** are also used in operating systems as a method of identifying a device file or other service. Below is a listing of Microsoft reserved words in MS-DOS and Windows operating systems. When attempting to use any of the below reserved words as a name of a file, or in a command you may encounter an unusual response. For example, attempting to save a file as CON or CON.txt may generate a reserved file name or access denied error or say the file already exists.

Reserved Words

- A special word reserved by a [programming language](#) or by a [program](#). You are not allowed to use reserved words as [variablenames](#). For example, in [BASIC](#) and [COBOL](#), the word *IF* is reserved because it has a special meaning.

Punctuation & symbols

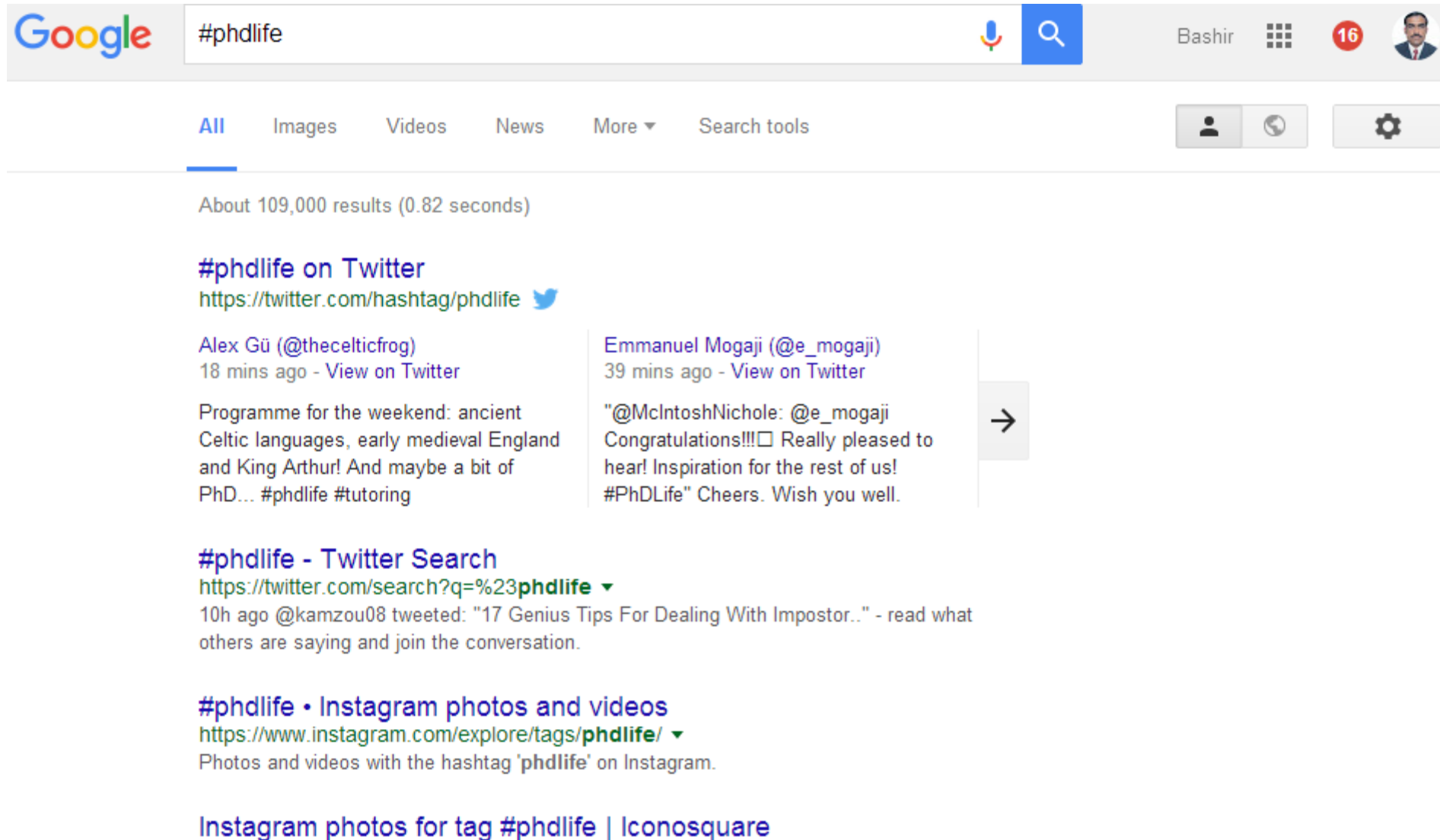
- You can use search operators and other punctuation to get more specific search results. Except for the examples below, Google Search usually ignores punctuation.

Punctuation & symbols





- Even though you can use the punctuation marks below when you search, including them doesn't always improve the results. If we don't think the punctuation will give you better results, you'll see suggested results for that search without punctuation.




Symbol	How to use it
+	Search for Google+ pages or blood types Examples: +Chrome or AB+
@	Find social tags Example: @agoogler
\$	Find prices Example: nikon \$400
#	Find popular hashtags for trending topics Example: #throwbackthursday
-	When you use a dash before a word or site, it excludes sites with that info from your results. This is useful for words with multiple meanings, like Jaguar the car brand and jaguar the animal. Examples: jaguar speed -car or pandas -site:wikipedia.org
"	When you put a word or phrase in quotes, the results will only include pages with the same words in the same order as the ones inside the quotes. Only use this if you're looking for an exact word or phrase, otherwise you'll exclude many helpful results by mistake. Example: "imagine all the people"
*	Add an asterisk as a placeholder for any unknown or wildcard terms. . Example: "a * saved is a * earned"
..	Separate numbers by two periods without spaces to see results that contain numbers in a range. Example: camera \$50..\$100

Example of Punctuation using Hash tag





The screenshot shows a Google search interface. The search bar contains the text "#phdlife". The search results are displayed below the search bar, showing various links and snippets related to the hashtag #phdlife. The results include a link to a Twitter page, a tweet from Alex Gü (@thecelticfrog), a tweet from Emmanuel Mogaji (@e_mogaji), a link to a Twitter search page, and a link to an Instagram page. The search results are organized into a grid-like layout with columns for the search result title, the URL, and a snippet of the content. The search results are also accompanied by a sidebar on the right with navigation icons.

Google   Bashir  16 

All Images Videos News More Search tools   

About 109,000 results (0.82 seconds)

#phdlife on Twitter
<https://twitter.com/hashtag/phdlife> 

<p>Alex Gü (@thecelticfrog) 18 mins ago - View on Twitter</p> <p>Programme for the weekend: ancient Celtic languages, early medieval England and King Arthur! And maybe a bit of PhD... #phdlife #tutoring</p>	<p>Emmanuel Mogaji (@e_mogaji) 39 mins ago - View on Twitter</p> <p>"@McIntoshNichole: @e_mogaji Congratulations!!!! Really pleased to hear! Inspiration for the rest of us! #PhDLife" Cheers. Wish you well.</p>	
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#phdlife - Twitter Search
<https://twitter.com/search?q=%23phdlife> ▼
10h ago @kamzou08 tweeted: "17 Genius Tips For Dealing With Impostor.." - read what others are saying and join the conversation.

#phdlife • Instagram photos and videos
<https://www.instagram.com/explore/tags/phdlife/> ▼
Photos and videos with the hashtag 'phdlife' on Instagram.

[Instagram photos for tag #phdlife | Iconosquare](#)

Truncation & Wildcards

- Use the wildcard and truncation symbols to create searches where there are **unknown characters, multiple spellings or various endings**.
- Neither the wildcard nor the truncation symbol can be used as the first character in a search term.

Cont..

- The **wildcard** is represented by a question mark ? or a pound sign #.
- To use the ? wildcard, enter your search terms and replace each unknown character with a ?

Cont..

- For example, type **ne?t** to find all citations containing **neat**, **nest** or **next**.
- **Note:** When searching for a title that ends in a question mark, the symbol should be removed from the search in order to ensure results will be returned.

Cont...

- To use the # wildcard, enter your search terms, adding the # in places where an alternate spelling may contain an extra character.
- For example, type **colo#r** to find all citations containing **color** or **colour**.

Cont...

Truncation is represented by an asterisk (*). To use truncation, enter the root of a search term and replace the ending with an *.

For example, type **comput*** to find the words **computer** or **computing**.

Note: The Truncation symbol (*) may also be used between words to match any word.

For example, **a midsummer * dream** will return results that contain the exact phrase, **a midsummer night's dream**.

Note: Wildcards and Truncation can not be combined for a term in a search. For example, a search for *p#ediatric** would be the same as a search for *P**.

Use of Prefix and suffix

by adding prefixes and suffixes to the basic term or word, we can change its meaning. Prefixes are added to the beginning of a base word. They change the meaning of the base word. Un + happy = unhappy Re + do = redo

Prefixes

- The prefix re means again. • Reread means to read again. • Rewrite means to write again. • The prefix un means not or the opposite of. • Uncomfortable means not comfortable. • Unpack means the opposite of pack.

Suffixes are added to the end of a base word. They change the meaning of the base word. E.g. wonder + ful = wonderful rest + ful = restful

- The suffix ly means in a certain way. • Quickly means in a quick way. • Loudly means in a loud way. • What does suddenly mean? • The suffix ful means full of. • Colorful means full of color. • Playful means full of play.

TIP: Use Prefix and Suffix to play with words and keywords to get more results for you search Queries

Reference

Croft, W.B., Metzler, D., and Strohman, T. (2009). Information retrieval in practice. New Jersey: Pearson Education.

Manning, C.D., Raghavan, P., and Schutze, H. (2008). Introduction to information retrieval. New York: Cambridge University Press.

Grossman, D.A. and Frieder, O. (2004). Information retrieval: algorithms and heuristics. Dordrecht: Springer.

Chowdhury, G.G. (2010). Introduction to modern information retrieval. 3rd edition. London: Facet Publishing.