How to Find (Almost) Anything on the Internet

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What You'll Learn Today

- *How to "think like a librarian" and format your internet searches to get better results
- *How to use search operators to narrow down your results and find information faster
- *How to find and use the Advanced Search page as a shortcut to get better search results

A Problem to Ponder

Imagine you have just gotten back from a trip to China. You took lots of cool pictures on your vacation, but your favorite photo is of the beautiful rock formations you saw in the countryside. (As seen in the picture to the right). You want to know if these rock formations can be found anywhere else in the world—but there's a problem. You can't remember what they're called!

You remember your tour guide saying that the name of the rock formations starts with a "K", and that they are mostly found in southern China. He also said that they are caused by erosion.



- ❖What keywords would you use to do a Google search for these rock formations? What are the most important things that you would include in your search?
- ❖ After you find out what these rock formations are called, you discover that there are also some located in Europe. How could you refine (narrow down) your search to show only results for European formations?

Advanced Searching 101: Getting Started

- ❖ To get better search results, you need to <u>"think like a librarian":</u>
 - 1. Start with a general search, then get more specific. If you start with a very specific search, you won't get very many results and it will be harder to refine your search to get the results you want.

EX: If you're searching for computer engineering jobs in Arizona, start by doing a general search for **Arizona** computer engineering jobs \rightarrow then refine your search based on the results that come up (by adding details like salary, education level, etc)

- 2. Figure out **what you already know** about the thing you're searching for: what <u>keywords</u> can you use to describe it? Are there <u>things related to it</u> that you can use as a starting point for your search? Are there <u>things you DON'T want to see</u> in your results?
- 3. Figure out **how to organize** your search: what <u>search operators/modifiers</u> (special characters and phrases that narrow your search results, like AND, OR, and quotation marks) should you include? How can you phrase your search to get better results?

Advanced Searching 101: Practice

A few months ago, a friend told you about a book they highly recommended. It was a mystery by a very popular British author, with a very shocking ending. You can't remember the title or the author, but you remember that it was an older book (from the 1940s or 1950s) and involved a wealthy family in a house. The title of the novel may have come from a nursery rhyme.

Use your internet search skills to find the title and author of this book.

- Each time you type something into the search bar, write down your search on the practice worksheet.
 - You may need to modify your search multiple times.
 - Once you think you've found the answer, write it on your worksheet (but don't tell anyone else!!!)

The correct answer is: Crooked House by Agatha Christie



Search Operators

- Search operators are special characters and words you can use to narrow down & refine your search results
- Search operators can vary depending on the search site you're using, but these are some of the most common/the ones used by Google:

Search Operator	Example	When to Use It
Quotation marks (" "): lets you search for an exact phrase/words that are right next to each other	"Crooked House by Agatha Christie" will ONLY bring up results that contain that exact phrase	When you want to search for something very specific, or when you want to remove results that aren't actually relevant to what you're looking for
Site search (site:) lets you search for results within a specific site [don't put a space after the colon]	<u>Hillary Clinton site:cnn.com</u> will only bring up results about Hillary Clinton that are from CNN	When you want to limit your search to one particular website
Domain search (site:) lets you search for results within a specific domain type (like gov or edu) [don't put a space after the colon]	Scholarships site:edu will only bring up results about scholarships from educational websites	When you only want to search specific information sources (like government sites or educational sites)
Minus (-) lets you exclude a word or phrase from your search results [don't put a space after the -]	<u>never gonna –give</u> will exclude results about Rick Astley's "Never Gonna Give You Up" from your search results	When you know what you are NOT looking for/want to exclude certain things from your results

Search Operators (cont.)

Search Operator	Example	When to Use It
OR: Lets you expand your search to include results that might use one of several words	programming OR coding will bring up results for both computer programming and computer coding	when you need to <i>broaden</i> your search results, especially if there is more than one word that can be used to describe what you're looking for
AND: Lets you limit your search to include only results that use ALL of your search terms	ethics AND free speech will bring up only results that include both "ethics" and "free speech"	when you need to narrow your results down to something very specific [Note: Google automatically assumes there is an AND between each of your search terms]
Wildcard (*): lets you expand your search if you don't know one or more of the words that describe what you're trying to find, or if you want to search for multiple variations of a term	<u>apple * guide</u> will bring up results for Apple iPad guides, iPhone guides, Apple help guides, etc; <u>histor* books</u> will bring up results for history books, historical books, historian books, etc	If you're not sure what the best search term(s) to use are, or if there are multiple ways a search term can be spelled
File Type (filetype:) lets you limit your search to only include results in a specific file format (PDF, JPEG, DOC, etc) [don't put a space after the colon]	Agatha Christie filetype:pdf will only include Agatha Christie results that are in PDF format	If you have a specific file format you want your results to be in
Number range (): lets you search for results that include numbers within a set range [don't put a space after the]	<u>Chicago apartments \$600\$750</u> will only include results for apartments that fall within that price range	If you want to limit your results using price, date, or other numerical ranges

Complex Searches

- If you would like to narrow down your results to something very specific, you can combine multiple search operators in one search.
- EX: If you wanted to do a search for literary criticism of either the novel *Bleak House* or the novel *Great Expectations* (both by Charles Dickens), and only wanted results that are available from educational sites in PDF format, you could use the following search string:
 - **❖**Charles Dickens ("Bleak House" OR "Great Expectations") lit* criticism site:edu filetype:PDF
 - ❖ If you're using the "OR" search operator in a complex search, be sure to put it in parentheses!
- To find the answer to our Advanced Search practice question from earlier, we could use any of the following searches (in Google):
 - ❖ Popular British mystery author "wealthy family" ("surprise ending" OR "shocking ending") 1940..1950
 - *Popular British mystery author "nursery rhyme" ("surprise ending" OR "shocking ending") 1940..1950
 - ❖ british mystery book family ("shocking ending" OR "surprise ending") 1940..1950
 - ❖ british mystery (book OR novel) 1940..1950 "* house" "nursery rhyme"

The Advanced Search Page

- ❖It can be hard to remember which search operators do what and when you should use them → the Advanced Search page is your friend!
- To get to Google's Advanced Search, click on the **gear icon** (upper-right corner of Google screen), then click on **Advanced search** in the drop-down menu (or go to https://www.google.com/advanced search).

These boxes do the same things as the most common search operators (AND, quotation marks, -, etc.

Find pages with... To do this in the search box all these words: Type the important words: tricolor rat terrier this exact word or phrase: Put exact words in quotes: "rat terrier" any of these words: Type OR between all the words you want: miniature OR standard Put a minus sign just before words you don't want: none of these words: -rodent, -"Jack Russell" Put 2 periods between the numbers and add a unit of measure: numbers ranging from: to 10..35 lb, \$300..\$500, 2010..2011 Then narrow your results any language Find pages in the language you select. language any region region: Find pages published in a particular region. anytime last update: Find pages updated within the time you specify. Search one site (like wikipedia.org) or limit your results to a domain site or domain: like .edu, .org or .gov Search for terms in the whole page, page title, or web address, or links to terms appearing: anywhere in the page the page you're looking for. SafeSearch Show most relevant results Tell SafeSearch whether to filter sexually explicit content. file type: any format Find pages in the format you prefer.

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Any questions?

