Technical Geekery Tips
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Special Edition - Google

Using Google

About 95% of the time, if you have just about any question, you can go to Google and type in the first couple of words that you think of, and in a couple of seconds you have your answer.

But sometimes it doesn't work out quite that way. This guide tells what you should do when you don't get what you wanted, and some more tips and things you didn't even know Google could do.

A note on syntax and changes

Because of all the different special characters that have meaning in searches, I'm going to enclose all my examples in ' ' (single quotes), which Google does not give any special meaning to. Any other character should be interpreted as an intentional part of the search.

Also, it should be noted that Google is always changing, and some of this information may be incorrect now or in the future. Additionally, Google is so complicated that it sometimes confuses everyone, even when they have all the rules down and think they know it all. Things you really didn't expect or seem to not follow the rules may show up.

Basic Tips

• If you don't get what you want right away, start by changing a couple of words around. If your initial query was 'find Windows desktop folder', for example, try 'locate Windows desktop directory' instead. Moving words around might change your results too, say, 'Windows desktop directory location'. (Even 'Windows desktop directory locate' might come up with different results.)

Mechanical Stuff

• Google doesn't actually have to search for every word in your query. If you type, say, 'Lucid Lynx' (which is the latest release of Ubuntu Linux as of this writing, if it sounds familiar), the top results will contain both 'lucid' and 'lynx'. However, once it runs out of those results, or comes up with none, it won't end the search--instead, it'll show pages with only one of the terms. If you've ever gotten a page of really irrelevant stuff, this is probably why. In addition, Google automatically searches synonyms of your query--say, 'childcare' when you typed 'child care'. Most of the time, this isn't a big deal, but sometimes you want to be sure you only get all of the words, and you don't want to search synonyms.

The fix: Type a + before each word you want to search exactly. Google claims all words have to be included anyway, but experience tells me not to believe it. (The Google help pages even admit this, with the note "A particular word might not appear on a page in your results if there is sufficient other evidence that the page is relevant." Apparently, my definition of "relevant" is different than Google's.

• Terms don't necessarily have equal weight, although they often do. The first terms are sometimes emphasized, although the difference may well be unnoticeable, since the only times you worry about it are when all the pages are very relevant (or all the pages are not relevant at all). If you don't find what you're looking for, moving the terms around is worth a shot, as is rewording some of them.

• Terms don't have to be in order, and they can be anywhere on the page. This means that wildly

irrelevant results sometimes appear. For instance, I run a Google Alert (which is basically an automatic Google search) on 'windows 8' in order to keep track of the development of the next version of Windows. This search occasionally brings up phrases like '8 years ago, some windows were broken...' or 'Using Microsoft Bob 8 times on Windows 95 can be a problem.'

The fix: If you want all your terms to be in order and together, put it "in quotation marks." Stick a plus on the front for good measure to make sure the parser doesn't mess with you. However, quotation marks should be used only for a good reason; if you put every search you make in quotation marks, you're going to miss perfectly good results that happen to have a word or two slightly different.

• Google strips away connecting words, like 'and', 'to', 'the', and so on. This can sometimes lead to unexpected results. For instance (for lack of a better example), say I wrote a book about my online presence called _The Life and Death of scorchgeek_. If I simply typed in 'The Life and Death of scorchgeek' into Google, the parser would strip that down to 'life death scorchgeek', which may well not be what you intended.

The fix: If you don't want your connecting words to get messed with, put them in "quotes".

• Google is not case-sensitive, and cannot be made to respect case. But when were you planning to use that anyway?

• Google does not support any form of wildcards or regular expressions. So no, sorry, you can't type in [^a-z]*\$\^.(q)**\{1\}\1 and expect to get any results. Nor, somewhat more annoyingly for the average user, can I type, for instance, 'the web*' to get 'the webpage', 'the website', 'the web page', etc. It should be noted, however, that Google does automatically expand many words, so that 'win' may be expanded to 'winning', 'won', and so on, which is almost a substitute (although it doesn't offer you nearly the same level of control).

• If you're seeing tons of results about something irrelevant, and they have a common word or phrase, put that word or phrase in quotation marks, after a minus sign, like so: '-"buy today!"'. Note that unlike some search engines, typing NOT will not have the same effect as the minus sign; in some other search engines, annoyingly enough, exactly the reverse is true. You can use the minus sign with as many words or phrases as you want; just put a separate minus sign in front of each of them. (Note: There needs to be a space before the minus sign, and no space after it, or Google interprets it as a hyphen rather than an exclusion, like 'anti-spyware'.)

• Google will change your search around and, sometimes annoyingly, display pages that don't actually match your search query, if it "finds significant evidence the page is relevant." I don't think anyone at Google has published their definition of "significant evidence" yet, but it's certainly different from mine. Sometimes, this is nice; other times, it's extremely annoying--if I type something in, I want to have only things that exactly match my query show up.

The fix: Putting a plus in front of every word and using quotation marks judiciously, perhaps moving the quotes around if you don't find what you're looking for immediately, usually does a good job of searching only your exact query.

• There are always exceptions, and Google does a remarkably good job of analyzing your query and figuring out when it should break the rules. For instance (borrowing examples from the Google help pages), 'C++' is a programming language, not C and extraneous punctuation; 'the who' refers to a band, and Google will avoid stripping it.

• Punctuation marks that are part of recognized exceptions, like 'C++', are not ignored, nor are dollar signs, hyphens, or underscores. All other punctuation marks are removed.

More advanced operations
There are a *lot* of operations available, and many more which I haven't mentioned and which are practically undocumented. So I've tried to order this list with the most useful tips first. If you are told to use an operator with a colon, you generally don't want to leave a space between the colon and your search terms—it sometimes works with a space and it sometimes doesn't, and I haven't been able to figure out the logic, so I always leave it out. I like to put a + before the next term, just to be certain that Google knows you're on a new search term, but this is probably unnecessary.

• If you want to search only a specific website, because you know it's on that site but not how to get to it (I do this all the time with news articles), or the site has a lousy or nonexistent search box, use the site: operator.
'site:www.slashdot.com'

• If you remember a good part of a phrase, but don't know some of the words in it, an asterisk (*) matches any single word. (Note that Google does not support conventional wildcards, where a * would mean zero to infinity characters.)
'the life and * of scorchgeek'

• If you want the definition of a word, use the define: operator. Google will show a nicely formatted list of different dictionary websites' definitions. This is really nice because I often find that one dictionary lacks important aspects of a definition, but several read together generally give a very good impression of the word, and allows you to mix and match parts if you need to write your own definition.
'define:example'

• If you want to find someone's name, address, or phone number, use the phonebook: operator. This is *very* useful, and much, much easier than visiting one of the other people search websites, which often bonk you with hidden fees and fill the screen with advertising. It even gives you a link to a Google Maps page and a link to have your information removed, if you really don't want people to be able to find you. (Keep in mind that this may hinder people with a legitimate reason for contacting you.) Oddly enough, the map pinpointed my house several blocks away from its real location; changing the nine-digit zipcode to a five-digit one fixed the problem. Note that it works in reverse, too; a phone number will bring up your real name and address. (Unfortunately, you can't use wildcards on a phone number, and you can't look up a name or phone number with only an address.) Also strangely, some combinations of cities worked, and some didn't. When in doubt, leave the city out and only use it if necessary to narrow your results.
'phonebook:5555551234'
'phonebook:5555551234 new york'
'phonebook:mary jane chicago illinois'

• Need a quick calculator? Just type in your equation, and Google will solve it easily. Logarithms, parentheses, trigonometric functions, and so on are all handled. ^ does powers, and % does modulus (remainder). It respects order of operations, so you can probably put in some fairly complicated equations. That said, if you're doing serious math, you're better off going to Wolfram|Alpha (http://www.wolframalpha.com/), which will not only give you the answer, but also graphs, derivatives, and all sorts of other useful stuff.

'8+5*(4+3)'

• Need to convert units of measure? Just type what you want to convert and the units you want to use into the search box, and unless it's something really obscure or makes no sense (like '18 feet in hours'), Google should have no problem. It even supports metric prefixes ('10 pounds in nanograms') and silly conversions ('18 light-years in inches'). It can expand most common abbreviations, if you hate typing that much. Of course, if you make a mistake and don't get any results, you'll land on a normal search page, which is unlikely to have anything remotely relevant. Sometimes the autofill feature will give you the answer before you're even finished typing.
'56 tablespoons in cups'

• You can convert number systems the same way. You're unlikely to ever need to convert a number to binary or hexadecimal, but you never know. More down-to-earth is a Roman numeral converter. (The keyword for converting to normal numbers is 'decimal', which took me a couple of minutes to figure out.)
'XXII in decimal'

• You can even convert currencies, with updated exchange rates. There is a disclaimer that states that Google makes no guarantee on its being up-to-the-minute, so you probably wouldn't want to bet your company on it, but when is that going to happen to you?

• Ever gone to Google, run a search, and found that the website you clicked on does not contain what you searched for? Even more annoyingly, find that the page is down or has been deleted? A little-known fact is that page (sometimes with the content you were missing, if it's been deleted from the website for some reason) is still stored in Google's cache. To get to it, you can click the tiny "cache" link underneath the main link in the search results. If you already know the website is in the cache but not in its original location, you can use the cache: operator to get directly to the page.
'cache:www.google.com'

• If you want a quick weather forecast, use the weather: operator. (Actually, in this particular case, you don't technically have to use the colon; just 'weather' will do just as well.) Simply typing 'weather' will cause Google to attempt to guess your current location through some undisclosed algorithm which I suspect is based on your IP address, which uniquely identifies your computer or network on the internet and often gives the location of your ISP. For better accuracy, type your location afterwards.
'weather:seattle washington'

• If you know the file type of the file you're looking for (say, a PDF, or a JPEG), use the filetype: operator. Of course, if you're looking for pictures, you'll want to use Google Image Search.
'filetype:pdf +"the technical geekery"'

• If you want to see pages that link to a particular website, use the link: operator. (Word to the wise: This seemed to me to return irrelevant and strange results; for instance, my query below returned no results, but I know for a fact there are a fair number of links to my website, and 'link:www.google.com' gave results that didn't make much sense. I would say I was wrong about the operator, but using it from Advanced Search confirmed that I was correct.)
'link:www.thetechnicalgeekery.com'

• If you want to see pages that Google thinks are related to a site, use the related: operator (oddly

enough). "Google thinks" is a key phrase here; sometimes it works well, and sometimes it doesn't. For example, 'related:google.com' returned other search engines, 'related:bit.ly' returned other URL-shortening services, and so on. But 'related:thetechnicalgeekery.com' returned seemingly random results.
'related:www.snipurl.com'

• Many of the above options, if you want to cut down on the ones you memorize, can be accessed from the info page for that website, accessed with the info: operator. Strangely enough, it only works for some web pages, and of course you have to know the URL to be able to use it.
'info:www.google.com'

• If you happen to know a phrase that's in the website's title (the text that appears in the title bar of the window and in bookmarks), you can use the intitle: operator to narrow your search quite dramatically--in my test, there were only four results, and they were all my web page.
'intitle:"the technical geekery"'

• If you want to search for a range of numbers, there's no need to type 2 OR 3 OR 4, and so on for as long as you want, or just put in a * and get some irrelevant information. Instead use a .. between the numbers to search for any of those numbers in that position. Note that this is not changed by placing the term in quotation marks.
'2..20'

• If you know part of a URL, you might be able to find the site with the inurl: operator. Strangely, I noticed that there was at least one URL in my example that didn't actually contain the string 'thetechnicalgeekery'.
'inurl:"thetechnicalgeekery"'

Advanced Image Search
When you're searching images, you might want to filter based on license (can I freely reuse this picture?), or size (is this going to fit on my PowerPoint slide?). Instead of memorizing a bunch of operators for something most people use very rarely, Google has you simply go to the Advanced Image Search page. (There is an advanced normal search page, accessible by clicking the link to the right of the main search box, but it includes only a small subset of these tips, and you can use all the important features directly from the search box. That said, if you're still learning, or you need to sort by date (oddly enough, you must go to Advanced Search to do that), feel free to use it. You can access that page at http://www.google.com/advanced_image_search?hl=en.

Conclusion
I'm sure you learned something from this documentation; I know I certainly did while researching. For instance, I didn't know how to use the phonebook: feature, nor did I know about converting currency or number systems. If I ever get around to publishing an Anki deck of computer tips (you'll hear more later, probably) to help people learn them, these will be among them.