

How to Search the Web

A search engine is a special software program that helps you locate information on the Web. You tell the engine what you are looking for by entering a word or phrase, and the engine finds lots of websites that contain your word or phrase.

How does a search engine work? There are three main parts: A spider, an index and the user interface.

The spider crawls all over the websites to gather information about the sites' content and then brings the information home to the search engine. The information is placed into a humongous data file, and then indexed. The user interface is where you enter your terms and where you view the results.

The most popular and probably the most successful search engine today is **Google**. It has become so well known that it has become a verb. "To google" a subject means to search on the Web for an answer to your question.



Google is so popular because it is easy to use, extremely fast and returns highly relevant results due to its large index and effective ranking system.

However, the old adage about computers, “Garbage in, garbage out”, is very true when doing searches. Google does a lot of work to try to understand what we’re really looking for, but in the end it’s just a computer program. It can’t guess at what we’re actually looking for, it can only work with what we give it. Luckily, Google’s help section gives some good advice on how to search effectively:

Some basic facts

- ***Every word matters.*** Generally, all the words you put in the query will be used. There are some exceptions.
- Search is always case insensitive. Searching for [new york times] is the same as searching for [New York Times].
- With some exceptions, punctuation is ignored (that is, you can't search for @#\$%^&*()=+[[]\ and other special characters).

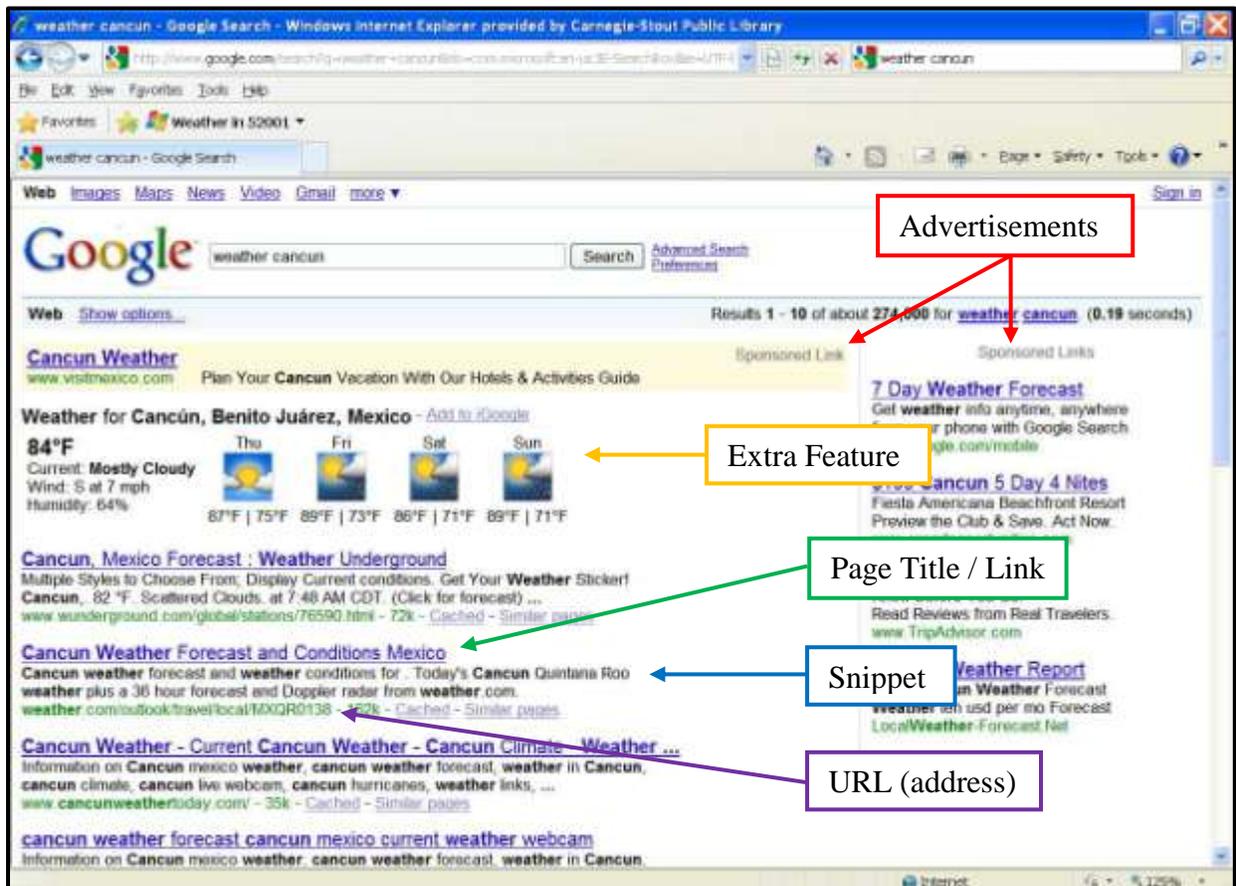
Guidelines for better search

- **Keep it simple.** If you're looking for a particular company, just enter its name, or as much of its name as you can recall. If you're looking for a particular concept, place, or product, start with its name. If you're looking for a pizza restaurant, just enter pizza and the name of your town or your zip code. Most queries do not require advanced operators or unusual syntax. Simple is good.
- **Think how the page you are looking for will be written.** A search engine is not a human, it is a program that matches the words you give to pages on the web. **Use the words**

that are most likely to appear on the page. For example, instead of saying [my head hurts], say [headache], because that's the term a medical page will use. The query [in what country are bats considered an omen of good luck?] is very clear to a person, but the document that gives the answer may not have those words. Instead, use the query [bats are considered good luck in] or even just [bats good luck], because that is probably what the right page will say.

- **Describe what you need with as few terms as possible.** The goal of each word in a query is to focus it further. Since all words are used, each additional word limits the results. If you limit too much, you will miss a lot of useful information. The main advantage to starting with fewer keywords is that, if you don't get what you need, the results will likely give you a good indication of what additional words are needed to refine your results on the next search. For example, [weather cancun] is a simple way to find the weather and it is likely to give better results than the longer [weather report for cancun mexico].
- **Choose descriptive words.** The more unique the word is the more likely you are to get relevant results. Words that are not very descriptive, like 'document,' 'website,' 'company,' or 'info,' are usually not needed. Keep in mind, however, that even if the word has the correct meaning but it is not the one most people use, it may not match the pages you need. For example, [celebrity ringtones] is more descriptive and specific than [celebrity sounds].

Now that we have a general idea how to formulate a search, let's look at the Google search results page. We'll borrow one of their examples and look for [weather cancun].



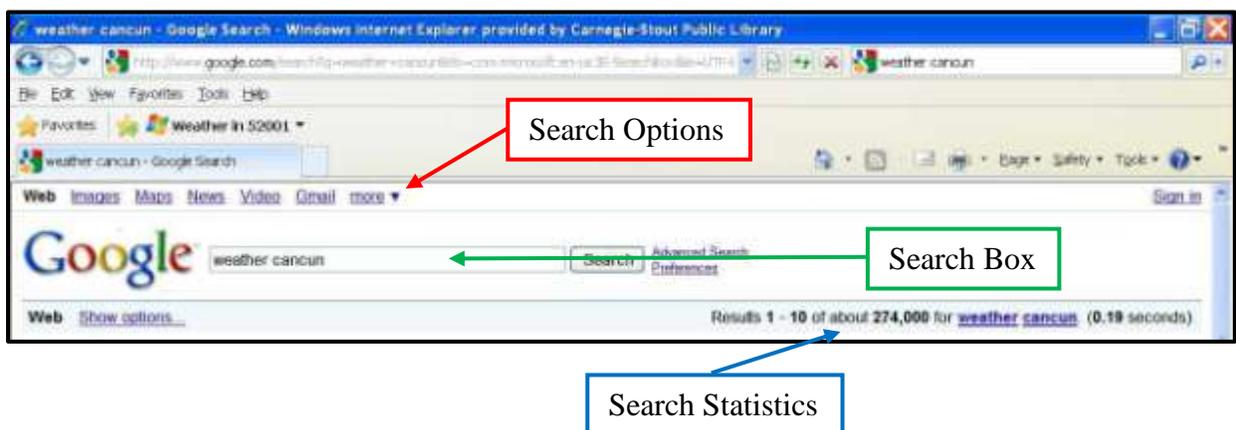
First off, we've got two things that aren't exactly webpages returned by our search. Google has given us a few links that are there not because of how well they match our search terms but because Google was paid to show them to us. Luckily, they're labeled "Sponsored Link" and are set off from the actual results either with a colored background or over to the right side of the screen. Not all searches will return ads, but many do.

The second odd thing we see is a small block of text and pictures giving the current weather in Cancun and the forecast for the next three days. Google will often use this space to return something other than

webpages. A search for a business may return a map of their location. A search for a celebrity's name may return images of the celebrity. If Google suspects you've misspelled one of your search terms it may suggest an alternate spelling. Things returned in this area are often helpful, but we set out to learn about searching for webpages, so let's continue on.

Moving down the page we come to a list of webpages, all following a specific format. First we see the title of the page, which is also a link to the page. This is where we'll click if we want to leave Google and see this page. Underneath this, in smaller black type, we get a snippet of the text from the page. This short excerpt is our best tool for determining whether or not this page will be useful. Finally, underneath the snippet and in green text, we have the URL (or web address) of the webpage. Seeing the address can sometimes give us useful information about who made the webpage.

Next let's look at a few things we skipped at the top of the window.

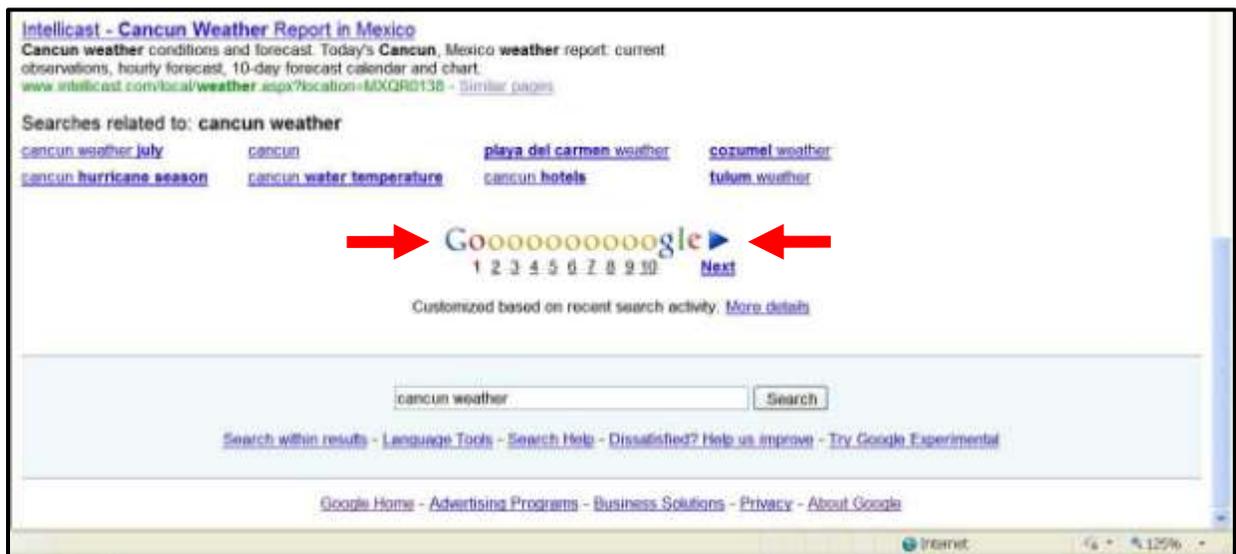


Along the top of Google's page we have a number of search options. Instead of looking for webpages we could use Google to find images,

maps, news, or many other things. If we click one of these options now Google will automatically search within that option using the terms [weather cancun], but we could also use any of these options to search for something entirely different.

Just underneath these options you'll notice a search box just like we'd find on Google's homepage. This will allow us to perform more searches without reloading Google's homepage. Also, this box automatically contains whatever we've just searched for, making it easy to refine or search terms if necessary.

Finally, Google gives us some search statistics. Apparently it's showing of the first ten of about 274,000 pages that contained our search terms. If we've used good terms and Google has done a good job ranking them we should find what we need within the first few results, but we could look through all 274,000 of them if we wanted to. The control to move past the first ten results is all the way at the bottom of the page.



We can move the “Next” button to move to the next ten results or click any of the “o”s to move ahead further.