The Amazing Things You Can Do With Google

Weeks One, Two and Three
These three-sessions of this five session study group will show you dozens of little known tips and tricks you can use to make your Google searches more effective. We will also show you some of the little known extras that are offered by Google that you may find useful. And all of these are free.

Objectives

- What Google Is
- Basic Google searches
- Advanced searches in Google
- Google language tools
- Signing into a Google account
- Customizing Google Search
- Web History
- Using Google Maps
- Even More Google
- Using Help

Other Resources Available for You
- How to Search More Effectively with Google, a free publication from VisualSteps.com
- Plan Your Trip with Google Maps, a free publication from VisualSteps.com
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We All Know What Google Is

All of us have probably used Google to search for something at one time or another, and some of us probably use it daily. So we all know the basics, but few of us have probably used all of the capabilities of this amazing program.

Google Inc. (NASDAQ: GOOG) is an American multinational corporation which provides Internet-related products and services, including internet search, cloud computing, software and advertising technologies. Advertising revenues from AdWords generate almost all of the company's profits.

The company was founded by Larry Page and Sergey Brin while both attended Stanford University. Together, Brin and Page own about 16 percent of the company's stake. Google was first incorporated as a privately held company on September 4, 1998, and its initial public offering followed on August 19, 2004. The company's mission statement from the outset was "to organize the world's information and make it universally accessible and useful"[9] and the company's unofficial slogan is "Don't be evil". In 2006, the company moved to its current headquarters in Mountain View, California.

Rapid growth since incorporation has triggered a chain of products, acquisitions, and partnerships beyond Google's core search engine. It offers online productivity software including email, an office suite, and social networking. Desktop products include applications for web browsing, organizing and editing photos, and instant messaging. The company leads the development of the Android mobile operating system and the browser-only Google Chrome OS for a specialized type of netbook known as a Chromebook. Google has moved increasingly into communications hardware: it partners with major electronics manufacturers in production of its high-end Nexus devices and acquired Motorola Mobility in May 2012. In 2012, a fiber-optic infrastructure was installed in Kansas City to facilitate a Google Fiber broadband service.

The corporation has been estimated to run more than one million servers in data centers around the world[15] and to process over one billion search requests and about twenty-four petabytes of user-generated data each day. In December 2012 Alexa listed google.com as the most visited website in the world. Numerous Google sites in other languages figure in the top one hundred, as do several other Google-owned sites such as YouTube and Blogger. Its market dominance has led to criticism over issues including copyright, censorship, and privacy.

Google Search, a web search engine, is the company's most popular service. According to market research published by comScore in November 2009, Google is the dominant search engine in the United States market, with a market share of...
65.6%. Google indexes billions of web pages, so that users can search for the information they desire, through the use of keywords and operators. Despite its popularity, it has received criticism from a number of organizations. In 2003, The New York Times complained about Google's indexing, claiming that Google's caching of content on its site infringed its copyright for the content. In this case, the United States District Court of Nevada ruled in favor of Google in Field v. Google and Parker v. Google. Furthermore, the publication 2600: The Hacker Quarterly has compiled a list of words that the web giant's new instant search feature will not search. Google Watch has also criticized Google's PageRank algorithms, saying that they discriminate against new websites and favor established sites, and has made allegations about connections between Google and the NSA and the CIA. Despite criticism, the basic search engine has spread to specific services as well, including an image search engine, the Google News search site, Google Maps, and more. In early 2006, the company launched Google Video, which allowed users to upload, search, and watch videos from the Internet. In 2009, however, uploads to Google Video were discontinued so that Google could focus more on the search aspect of the service. The company even developed Google Desktop, a desktop search application used to search for files local to one's computer (discontinued in 2011). Google's most recent development in search is its partnership with the United States Patent and Trademark Office to create Google Patents, which enables free access to information about patents and trademarks.

One of the more controversial search services Google hosts is Google Books. The company began scanning books and uploading limited previews, and full books where allowed, into its new book search engine. The Authors Guild, a group that represents 8,000 U.S. authors, filed a class action suit in a New York City federal court against Google in 2005 over this new service. Google replied that it is in compliance with all existing and historical applications of copyright laws regarding books. Google eventually reached a revised settlement in 2009 to limit its scans to books from the U.S., the UK, Australia and Canada. Furthermore, the Paris Civil Court ruled against Google in late 2009, asking it to remove the works of La Martinière (Éditions du Seuil) from its database. In competition with Amazon.com, Google plans to sell digital versions of new books. On July 21, 2010, in response to newcomer Bing, Google updated its image search to display a streaming sequence of thumbnails that enlarge when pointed at. Though web searches still appear in a batch per page format, on July 23, 2010, dictionary definitions for certain English words began appearing above the linked results for web searches. Google's algorithm was changed in March 2011, giving more weight to high-quality content possibly by the use of n-grams to remove spun content.

During the Google I/O conference in May 2013, Google's Amit Singhal presented...
on the future of search, explaining that a search engine's three primary functions will need to evolve and that search will need to: 1. Answer, 2. Converse, and 3. Anticipate. As part of his keynote talk, Singhal stated, "A computer you can talk to? And it will answer everything you ask it? Little did I know, I would grow up to become the person responsible for building my dream for the entire world." Conversational search technology was then featured and Singhal introduced the term "hot-wording" to describe search without the need for an interface, whereby the user simply prompts the Google search engine by stating, "Ok Google." The I/O audience was then shown a demonstration in which a user asked a question and the search engine answered back in "conversation," in addition to the presentation of results for the query.

Productivity tools
In addition to its standard web search services, Google has released over the years a number of online productivity tools. GMail, a free webmail service provided by Google, was launched as an invitation-only beta program on April 1, 2004, and became available to the general public on February 7, 2007. The service was upgraded from beta status on July 7, 2009, at which time it had 146 million users monthly. The service would be the first online email service with one gigabyte of storage, and the first to keep emails from the same conversation together in one thread, similar to an Internet forum. The service currently offers over 7600 MB of free storage with additional storage ranging from 20 GB to 16 TB available for US$0.25 per 1 GB per year. Furthermore, software developers know Gmail for its pioneering use of AJAX, a programming technique that allows web pages to be interactive without refreshing the browser. One criticism of Gmail has been the potential for data disclosure, a risk associated with many online web applications. Steve Ballmer (Microsoft's CEO), Liz Figueroa, Mark Rasch, and the editors of Google Watch believe the processing of email message content goes beyond proper use, but Google claims that mail sent to or from Gmail is never read by a human being beyond the account holder, and is only used to improve relevance of advertisements.

Google Docs, another part of Google's productivity suite, allows users to create, edit, and collaborate on documents in an online environment, not dissimilar to Microsoft Word. The service was originally called Writely, but was obtained by Google on March 9, 2006, where it was released as an invitation-only preview. On June 6 after the acquisition, Google created an experimental spreadsheet editing program, which would be combined with Google Docs on October 10. A program to edit presentations would complete the set on September 17, 2007, before all three services were taken out of beta along with Gmail, Google Calendar and all products from the Google Apps Suite on July 7, 2009. Google Drive is a file storage and synchronization service by Google that was released on April 24,
Google Drive is now the home of Google Docs, a suite of productivity applications, that offer collaborative editing on documents, spreadsheets, presentations, and more.

Do I Need to Sign In to Search

As with many search engines, you can use Google anonymously, without signing in with a Google account. However, there are many ways that Google can personalize your searches and your information if you create a Google account and sign in. Creating a Google account is free; if you have a Gmail account, you have a Google account. You will know whether or not you are signed into Google by whether your username appears in the upper right hand corner of your Google screen.

What’s a Browser? What’s a Search Engine?

Many people are confused by the terms browser and search engine (just two of the many jargon terms that computer users run into)? Both are pieces of software, computer programs that do a specific task.

Browser (also known as Web Browser) – this software program makes it easy to use the Internet. It allows you to key in an internet address, technically a URL (Uniform Resource Locator) and takes you to that address, or website. If you use a Windows computer, the most common browser is Internet Explorer; if you use a Mac, the most common browser is Safari. There are many other browsers that you can download and install. The most popular ones include Chrome (by Google), Firefox and Opera.
Search Engines – this software program “searches” the Internet for websites that contain words for which you ask it to search. It then displays a list of the websites that contain those words. There are also many search engines, of which Google Search is one; Google Search is also the most popular search engine by most measures. Other popular search engines include Yahoo! and Bing (from Microsoft), but there are many more. The website at the following URL link will provide a more comprehensive list-- http://www.thesearchenginelist.com/.

A search engine is run, or “loaded” after the browser is open; in the browser’s address bar (the space at the top of the browser screen where you enter a web address), you enter the web address for the search engine that you want to use. In the case of Google, that web address is www.google.com (in many browsers today, you don’t need to enter the www). Once the search engine window opens, there will be a search box in which you can enter the words for which you want to search.

Here is a link to a basic You Tube video that describes the difference: http://www.youtube.com/watch?v=wX6kdzrXMIg

The Basic Search (Using Google Search)

Open an web browser you regularly use, e.g. Internet Explorer, Chrome, Firefox, Safari, etc., and type www.google.com in the address bar. You should see a screen similar to that on the prior page of this booklet. We’ll spend a minute or two exploring that page.

Now we’re ready to do a search. Type the word railroad in the search box. What immediately happens is the screen changes shape and Google tries to guess the term for which you might be looking. Either click on the work railroad in the list, or once you have the full word typed in, hit the enter key on the keyboard. Notice the microphone at the right edge of the search box; if you click on that and your computer has a microphone, you can also speak your search term.

That will open the results screen on the following page; we’ll spend a few minutes exploring this page.
We want to also explore several other parts of this page. Notice the command line above the search results. On the right end of that command line is the command Search Tools; click on that and some additional filters will appear that you can use to narrow your search; these filters vary with the type of search you’re doing; click on Search Tools when Web is selected, and you’ll notice that All Results is selected; by default, Google searches through all of its content.

Click on Images, then Maps, then Shopping, then News and examine how the search results pane changes each time. Then click on the More link, which expands the filters list to include Videos, Books, Blogs, Flights, Discussions, Recipes, Applications and Patents. Click on each to see what happens to the contents of the search pane.

When we’re ready, we will left click on the blue hyperlink for Union Pacific. That should open a screen similar to the one below:
After we’ve explored this screen for a few minutes, left click on the Back button at the top left hand corner of the screen to return back to the original search results screen.

Depending on your computer settings, when you clicked on the blue hyperlink for Union Pacific a few minutes ago, the website probably replaced your search results list on the screen. Sometimes you might want to leave you search results list active, but still have access to the website; in this case you can open the website in a new window.

By right clicking on the Union Pacific link, you open a drop down menu that includes the command to **Open link in a new window**; left click on this command, which will now open a new window with the website in it.
Click on the Red X in the upper right hand corner of that window to close it.

That same shortcut menu also includes the command to **Open link in new tab**; almost all web browsers today allow multiple tabs to be open in the same window, so that you can easily move among different web pages without closing them. Right click on the Union Pacific link again, and left click on the **Open link in new tab** command. After we’ve explored this tab a little, click on the black or red X that appears on the tab to close the tab without closing the browser.

### How Does a Search Engine Work

Search engines are really computer programs that constantly perform the same important task: that of indexing web pages. In this way, they build an enormous index of key words. There are many different search engines and they use different techniques for indexing web pages. That is why the search results from one search engine may be quite different from that of another. Several search engines build their indexes by adding as many words as possible from every web page. Other search engines use only keywords that occur in the title of a webpage. Some web pages may use a special kind of key word or meta tag that can be found on a web page. Web designers can insert these hidden keywords themselves. Sometimes designers abuse this capability; they know which words are frequently used on the internet, and so intentionally insert them in their web pages; That is why sometimes you may see web pages in your search results that have nothing to do with the keyword you used.

It may surprise you to know that search engines are not intelligent. They can only do what you tell them to do. They do not edit or select the web pages they find. This lack of intelligence is especially obvious when a search engine carries out a search on a search term that has different meanings. An editor would be able to order these kinds of web pages to their content.
How to Use Search Engines

In some cases, you’ll be disappointed by the results of a search. The search engine blindly brings up all sorts of unrelated pages that contain your keywords. You may be unable to find the exact information that you need. Here are some frequently occurring problems, and some things you can do to help.

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<tr>
<th>Problem</th>
<th>Solution</th>
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<tr>
<td>Too few results</td>
<td>Sometimes a search yields very few results; try to:</td>
</tr>
<tr>
<td></td>
<td>• Use another search engine</td>
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<tr>
<td></td>
<td>• Use more than one keyword or try to use a synonym</td>
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<td></td>
<td>• Use a keyword in a different language</td>
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<tr>
<td>Too many results</td>
<td>When this happens, you can try to:</td>
</tr>
<tr>
<td></td>
<td>• Fine tune your search by using more than one keyword or a synonym</td>
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<td></td>
<td>• Limit your searches to web pages in the English language</td>
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<td></td>
<td>• Search by using a directory instead of a search engine; find some by googling “web search directory”</td>
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<tr>
<td>Wrong pages</td>
<td>This is caused because search engines do not edit or sort your results; this can frequently occur with words that have different meanings, such as the words board and case; try to:</td>
</tr>
<tr>
<td></td>
<td>• Use a synonym or another keyword</td>
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<td></td>
<td>• Use a directory listing</td>
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Advanced Search

If you can’t, or don’t want to, remember the search tricks that were outlined above, or are in the appendix, you can use the advanced search screen that Google offers.

- Open your web browser and enter www.google.com in the address bar; enter any search term in the Search Box and click the Enter key; that will open a search results window

  ![Google Search](image)

- Click on the Settings “Gear” in the upper right hand area of the screen, and click on Advanced Search in the drop down menu (HINT: if the Advanced Search screen is not visible, you may need to increase your zoom and click the Gear icon again to reveal it.)
Search link doesn’t appear in your Google window, type www.google.com/advanced_search in the address bar of your browser and hit the Enter key on your keyboard.

In this screen, you can complete any of the information requested by the different boxes: you can expand the link that says **Date, usage rights, numeric range and more**. Take a minute or two to play around with different advanced searches. When you’re done, close all the open windows.

**Some Very Specific and Helpful Searches**

We’ll open the Google bar again; click on the Internet Explorer icon; enter www.google.com in the address bar and hit the enter key on the keyboard.
Oftentimes we have specific questions in our minds for which we would like a simple answer. Some examples of these include:

- **What time is it in _________?** In order to find the current time in any other city or any part of the world, all you have to do is type that phrase in a Google request box.
  - Type **Current time in Los Angeles**
  - Type **Current time in Moscow**
  - Type **Current time in Paris**

- **Mathematical formulas** — instead of trying to find a calculator, if you have your computer open to your web browser, all you have to do is type the formula for which you are looking for an answer, and you will get your result
  - Type **14000 * 20%**
  - Type **1000 + 5000 + 6000**
  - Type **15000 / 30**

- **Weather** — any location
  - Type **Weather Paris**
  - Type **Weather Los Angeles**

Check in the Appendix of this booklet for many more phrases and operators that you can use Google searches to simplify your life and increase the effectiveness of your searches.

### Google Translate

One of the most powerful features of Google is its ability to work with multiple languages. It does this in several ways:

- Earlier, we showed you how to use the search result filters to select translated foreign pages; it can search through foreign language websites looking for that language’s equivalent of the English search term that you entered
- It can translate any web pages you find in languages other than English into English, or any other language in which you might be interested
- It can translate any word or phrase from English or any of dozens of other languages into English or any of dozens of other languages.

To get to the language tools, type **www.google.com** and click on More on the command line, then click on Translate on the drop down menu. (Also, you could type **translate.google.com** in the address bar of your browser). That will open the screen below:
This is the translate text section. Google allows you to enter any phrase or text in any of dozens of languages and it will translate it into any of dozens of languages that you specify.

- In the translate text section, type **comment allez vous**, change the translate from language to French, and click on the Translate button. This will open the Google translate screen shown below. The translation into English is on the right. Let’s spend a few minutes exploring all that you can do with this screen.

Play around for a minute or two with this screen; type How are you? In the box and change the from: language to English, then change the to: language to any other language you want. Note that you can click on the listen button to have the computer read the phrase to you.

The next exercise is to translate a web page. In a minute, you can translate any page you want, but for practice let’s all translate the home page of the Institute for Continued Learning at Roosevelt University

- Change the From language to English, and the To language to Polish (or any other language you want)
- In the From box, type http://iclru.org,
- Click on the web address link in the Translate To: box
That will open the ICLRU home page, translated into Polish; while the page is on the screen, you can translate it into any other available language by clicking on the down arrow, selecting the language and clicking on the Translate button.

Play around with any other sites for a minute or two, and then we will go on. Below the translation boxes, click on the Google Translate for my: Searches, which will open and information page to tell you Google Translate is integrated into all the Google applications.

When you’re finished, close all the open windows on your computer.

**Customizing Google Search**

There are many ways to customize Google to your own personal preferences, some of which depend on you creating a Google account and signing in, and others available regardless of signing in.

**Settings**

In the upper right hand corner of the Google search results screen, there is a Settings button. Click on that button, and one of the choices will be Search Settings.

- Click on the Search Settings link
- There are three filters on the left side of the screen: Search Results (default), Languages and Location
- With Search Results selected, you will have the choice to make changes to the following settings
  - SafeSearch filters – prevents Google from displaying web pages containing explicit sexual images
  - Google Instant Predictions – predictions and results appear while typing
  - Results per page
  - Personal Results
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- Spoken Answers
- Where results open
- Search history

- With Languages selected, you will have the choice to make changes to the following settings
  - For Google text
  - For Search results

- With Location selected, you will be able to enter your current location to help customize search results

Help will simply bring up the Google help screens.

You’re not likely to change many of these settings, but it’s good to know that they are here if you want them.

When you’re done, click the Back button until you get back to the Google Search screen.

Web History
Web History offers you more relevant search results and recommendations based on your web activity, providing you with a more personalized experience on Google.

When you create a Google Account, you're given the option to enable Web History with your account.

With Web History, you can:

- View and search across webpages you've visited in the past, including Google searches. Now you don’t have to hunt for things you've seen and liked in the past!
- Find trends on your web activity, such as your most visited sites and top searches.
- Get more personalized search results based on what you've searched for and which sites you've visited.
- See personalized predictions in **autocomplete** based on what you've searched for and which sites you've visited.
- Filter search results by pages you've visited before using the **Search options panel**.

Your Web History is stored on Google servers, so you can view and manage it from any computer by signing into your Google Account. They store information related to the pages you visit, such as the URL, but don't store a snapshot of the page itself in your account.

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To access your Web History, visit http://www.google.com/history, or click on the Settings icon on the search results screen, and select Web History from the drop down menu.

**Note:** Depending upon whether or not you're signed in to a Google Account when you search, the information we use for customizing your experience will be different:

**Signed-in personalization:** When you're signed in, Google personalizes your search experience based on your Web History. If you don't want to receive personalized results while you're signed in, you can turn off Web History and remove it from your Google Account. You can also view and remove individual items from your Web History.

**Signed-out personalization:** When you're not signed in, Google customizes your search experience based on past search information linked to your browser, using a cookie. Google stores up to 180 days of signed-out search activity linked to your browser's cookie, including queries and results you click.

**Save your Google Web History in your Google Account**

Your Web History is stored on Google servers so you can view and manage it from any computer by signing into your Google Account. We store information related to the pages you visit, such as the URL, but don't store a snapshot of the page itself.

Close all the windows to go back to the desktop.
Even More Google
We want to spend a few minutes just quickly looking at some of the many products that Google offers; these are constantly changing so check back often.

- Open your web browser, type [www.google.com](http://www.google.com) in the address bar and hit the Enter key on your keyboard
- Click on the more command on the command line and the even more command at the bottom of that menu.

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<td>Web Search</td>
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<td>Search billions of web pages</td>
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<td>Add a search box to your browser</td>
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## Geo
- **Google Offers**
  - Get amazing offers at the best places to eat, shop, and play
- **Maps**
  - View maps and directions
- **Panoramio**
  - Explore and share photos of the world

## Specialized Search
- **Blog Search**
  - Find blogs on your favorite topics
- **Patent Search**
  - Search the full text of US Patents
- **Finance**
  - Business info, news and interactive charts
- **Alerts**
  - Get email updates on the topics of your choice

## Home & Office
- **Drive**
  - Create, share and keep all your stuff in one place
- **Calendar**
  - Organize your schedule and share events with friends
- **Translate**
  - Instantly translate text, web pages, and files between over 50 languages

## Google Wallet
- Make your phone your wallet

## Social
- **Google+**
  - Real-life sharing, rethought for the web
- **Groups**
  - Create mailing lists and discussion groups
- **Orkut**
  - Meet new people and stay in touch with friends

## Innovation
- **Fusion Tables**
  - Visualize, combine, host, and share your data tables
- **Code**
  - Developer tools, APIs and resources
Using Google Maps

Many of you probably already use Google Maps to get directions to places you’re going, but you may not be familiar with the many features that Google Maps includes. We’ll start with the basics and then get into some of the more complicated features. We’ll pretend that we’re planning a trip to the Chicago Cultural Center downtown.

Open your web browser, and enter maps.google.com in the address bar. That will open a screen similar to the one shown on the top of the next page. We’ll spend a minute or two exploring that screen. When we’re done, we’ll enter our destination into the search box. You can either enter the address, or in the case of a landmark like the Chicago Cultural Center, you can just enter the name of the landmark.

That should open a screen similar to the one shown below; we’ll spend a few minutes exploring this screen.
You can close the information window with the address details to get a better look at the map by clicking on the x at the upper right hand corner of the window. If you want to bring the window back, just click on the marker on the map and it will reappear.

You can zoom in and out of the map by clicking on the + or – signs on the scale on the left hand side of the map; you can also click and drag the slider up and down, or you can use the wheel on your mouse to zoom in and out on the map; you can also zoom in on a location by double clicking on it.

- Click 3 times on the + sign to zoom in on the map, then click three times on the – sign to zoom back out.

Down at the bottom right hand corner of the map is a little arrow facing up; clicking on that arrow opens and inset map.

Notice at the very bottom of the screen the link to Edit in Google Map Maker. We won’t be going through this in the study group, but for those of you a little more technically savvy, this is a great way to customize Google Maps with information that matters to you.

Moving the map – you can move the map around to get to an area that’s not visible by placing your cursor anywhere on the map and holding down the left mouse button; the cursor changes to a little grabbing hand, and when you move the mouse, the map moves also. You can also move the map by clicking on the arrows in the circle above the zoom slider bar.
Click on the left arrow twice; click on the right arrow twice to move the map back to where it was; click on the up arrow twice and then on the down arrow twice to move the map back to where it was. You can also move the map by using the PgUp, PgDn, Home and End buttons on your keyboard; you can also move the map a little at a time by using the arrow keys on your keyboard.

You can return to your original map view by clicking on the blank space in the middle of the circle with the four directional arrows on the map.

You can set two default locations on Google maps: one for work and one for home. To display those settings, click on the My places button in the text area on the left side of the map. You’ll notice that if you’re signed in, all the maps for which you’ve searched in the recent past are listed in that column. You can go back to them by just clicking on the one you want.

There are many different views of the map that you can use to see your location from different perspectives. There are three boxes in the upper right hand corner of the map: one toggles between map view and satellite view; one opens the Google Earth view of the location, for which you need to download Google Earth (we can’t do that on the RU computers); and the third allows you to show additional information related to the location—by default you only see a few of the choices, but you can click on the little down arrow at the bottom of the box to expand it to see the additional options. If you mouse over each of the menu items, a little explanation screen will pop up to the left. We’ll take a few minutes to explore these different choices.
Google makes it really easy to find services and attractions near the location for which you searched. Just to make sure that we’re all in the same place, type **Chicago Cultural Center** in the Search Box again, and hit the Enter key on your keyboard. At the bottom of the screen on the left hand side, you will see the Search Nearby link; click on that and a little search box will open beneath it. All you need to do is type the type of service or attraction in that search box, and see what happens.

- In the search nearby box at the bottom of the screen, type the word **hotels** to find hotels near the Chicago Cultural Center.
  
  You’ll notice that the pin over the Chicago Cultural Center now changes to green, and you’ll see that there are two types of indicators that are placed on the map in pink:
  
  - One is a larger pin that has a letter on it – the letter is connected to the description of the place on the left hand side of the screen; also if you click on the pin with the letter on it, a description window will open providing you more information about that place.
  
  - The other is a small circle – if you mouse over these little circle, Google will show you the name of that location.

Sometimes these items are a little easier to see if you switch to map view instead of satellite view.
Directions – so far all we have done is found information about a particular place, but one of the most useful benefits that Google Maps has is directions from one place to another. In the upper left hand corner of the screen, just under the Google logo, you will find the Get Directions button. Click on that. The window below should open, with the Chicago Cultural Center showing at the destination. Let's explore this screen for a minute.

Presuming that you'll be driving downtown, leave the car icon selected, and enter your home address in the A box; then click on the blue Get Directions button (if you don’t want to enter your home address, enter the Roosevelt address – 1400 Roosevelt Blvd, Schaumburg, IL); the screen below opens; we'll spend a few minutes exploring this screen.
Now let’s say that you decided to take public transportation from your location to the Chicago Cultural Center; simply click on the Bus icon above your starting point. The following screen should open:

![Google Maps screenshot](image)

We’ll spend a few minutes exploring this screen. Then to reverse your route, simply click on the up and down arrows to the right of the starting/ending point boxes; that will show you directions to get back home again.

You can also add one or more destinations to your itinerary. Let’s say that on the way back home you wanted to stop at O’Hare Airport. Click back on the Car link, click on the Add destination link and a C box appears; click in
the box, type O'Hare and select O'Hare International Airport, Chicago, IL from the drop down list. Now you want to go to O'Hare between downtown and home, so you have to move O'Hare between the starting and ending points; if you put your cursor over the circle with C, it will change to a hand. Left click and drag O'Hare up between the starting and ending points; now it changes to B, and home changes to C; then click the blue Get Directions button again; no you have directions to go from the Chicago Cultural Center to O'Hare, and from O'Hare to home.

Printing the Directions – Google Maps makes it relatively easy to print your map, with a number of choices for what to print. There is a little printer icon near the top of the left side of the screen. Click on that and the screen below will open; we’ll spend a few minutes exploring the print options.

![Google Maps print options](image)

When you’ve selected the print options that you want, click on the blue Print button at the top of this screen.

Changing the Route – While you can change the route by adding a destination as we did above, you can also change the route just by clicking anywhere along the route and dragging it to a different location. Let’s say that in between downtown and O'Hare, you wanted to go to Evanston.

- Place your mouse on the blue line somewhere between downtown and O'Hare; you will notice a little white circle appear; drag that circle up to Evanston, and let go; you will now see that your directions have changed to accommodate that stop.
Street View – We’ve left one of the coolest (and most controversial) features of Google Maps until last. Just to make sure that we’re all in the same place for this, close Google Maps, reopen it and enter Chicago Cultural Center in the search box again.

- There are several ways to do this, but under the description of the Cultural Center on the left hand side of the screen you will see a picture of the building with an icon of a little person in the bottom right hand corner. Click on that icon and the screen below should open. You are now in street view, and you can take a walking tour of the neighborhood. This takes a little practice and some pretty good mouse skills.
The first thing that we'll try is to find the circle at the top left corner of the picture that looks like a compass; move the cursor over the N and hold the left mouse button down while you move the N completely around that circle; you will get a 360 degree view of the block from where you are standing.

The second thing we're going to try is walking around the building; when you move your mouse over the screen, you will see little arrows that appear near the bottom of the screen, when you click on those arrows, you will move a few feet in the direction that you clicked; when you get to an intersection, you will be able to move forward and backward as well.

Thirdly, by holding your left mouse button anywhere on the screen and moving it, you can look down or up or sideways.

With practice, you can take virtual tours of thousands of places throughout the world that you've either been before, or to which you've never been but always wanted to go.

We’ve actually just begun to scratch the surface of all you can do with Google Search and Maps. Keep on practicing and studying, and you'll find all kinds of additional things that we haven’t covered.

Using Help

At the bottom of any Google search screen is a Help link. Google has excellent help resources for all of its products. You can either search for the topic for which you’re looking or you can navigate through the different links until you find the right one. (Hint—alternatively you can enter
www.google.com/support in the address bar of your browser, click the Enter key on the keyboard and click on the Web Search Help link.)
Now you can…

- Discuss What Google Is
- Execute Basic Google searches, using filters operators to narrow down results
- Conduct Advanced searches in Google
- Utilize Google Groups to Enter a Discussion about a Topic of Interest
- Utilize Google language tools to translate phrases and websites
- Describe the benefits of Signing into a Google account
- Customize your Google Search screen
- See and utilize your Web History
- Plan a trip and other things using Google Maps
- Check out what’s available on even more Google
- Use Help

Appendix

Basic Search Tips and Tricks

**Everyday Essentials**

**Weather**
To see the weather for many U.S. and worldwide cities, type "weather" followed by the city and state, U.S. zip code, or city and country.

Example: weather honolulu

**Stock Quotes**
To see current market data for a given company or fund, type the ticker symbol into the search box. On the results page, you can click the link to see more data from Google Finance.

Example: AMRMX

**Time**
To see the time in many cities around the world, type in "time" and the name of the city.

Example: Time Paris

**Sports Scores**
To see scores and schedules for sports teams type the team name or league name into the search box. This is enabled for many leagues including the National Basketball Association, National Football League, National Hockey League, and Major League Baseball.

All sports data provided by STATS LLC

Example: Chicago Bulls Score

Sunrise & Sunset
To see the precise times of sunrises and sunsets for many U.S. and worldwide cities, type "sunrise" or "sunset" followed by the city name.

Example: Sunrise Chicago

Reference Tools

Calculator
To use Google's built-in calculator function, simply enter the calculation you'd like done into the search box.

Example: 1000 + 6000 + 5000

Book Search
If you’re looking for results from Google Book Search, you can enter the name of the author or book title into the search box. Then, click on "Books" from the left-hand navigation to view book content. You can click through on the record to view more detailed info about that author or title.

Example: Mark Twain Huckleberry Finn

Earthquakes
To see information about recent earthquakes in a specific area type "earthquake" followed by the city and state or U.S. zip code. For recent earthquake activity around the world simply type "earthquake" in the search box.

Example: earthquake 60067

Unit Conversion
You can use Google to convert between many different units of measurement of height, weight, and volume among many others. Just enter your desired conversion into the search box and we’ll do the rest.
Example: 12 inches in centimeters

**Public Data**
To see trends for population and unemployment rates of U.S. states and counties, type "population" or "unemployment rate" followed by a state or county. You can click through to a page that lets you compare different locations.

Example: population cook county

**People Profiles**
If you're looking for someone you just met or a long-lost friend, enter the name of that person plus some identifying words about him or her to see a list of people with that name.

Example: “Jim Schwantz” Palatine
Google your own name in quotes

**Text Operators**

<table>
<thead>
<tr>
<th>Operator</th>
<th>Example</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>date:</td>
<td>date:6</td>
<td>Results are from pages dated within the previous 6 months</td>
</tr>
<tr>
<td>filetype:</td>
<td>filetype:xls</td>
<td>Results are in Microsoft excel format</td>
</tr>
<tr>
<td>info:</td>
<td>info:www.newyork.com</td>
<td>Returns results listing the site and offers options for more information</td>
</tr>
<tr>
<td>link:</td>
<td>link:www.nasa.gov</td>
<td>Returns pages that link to the NASA site-about 155,000 pages</td>
</tr>
<tr>
<td>related:</td>
<td>related:concrete forms</td>
<td>Returns pages for stabilizing forms, release agents, and the like</td>
</tr>
<tr>
<td>safesearch:</td>
<td>safesearch:hot cross buns</td>
<td>Returns recipes for delicious baked goods and children’s nursery rhymes without adult site content</td>
</tr>
<tr>
<td>site:</td>
<td>site:www.donnabaker.ca</td>
<td>Returns results from the specified site</td>
</tr>
</tbody>
</table>

**Choosing Keywords**

**Synonym Search**
If you want to search not only for your search term but also for its
synonyms, place the tilde sign (~) immediately in front of your search term.

Example: ~impressive

*Dictionary Definitions*

To see a definition for a word or phrase, simply type the word "define" then a space, then the word(s) you want defined. To see a list of different definitions from various online sources, you can type "define:" followed by a word or phrase. Note that the results will define the entire phrase.

Example: define google

*Spell Checker*

Google’s spell checking software automatically checks whether your query uses the most common spelling of a given word. If it thinks you’re likely to generate better results with an alternative spelling, it will ask “Did you mean: (more common spelling)?”. Click the suggested spelling to launch a Google search for that term.

Example: compter

*Local Search*

*Local Search*

If you’re looking for a store, restaurant, or other local business you can search for the category of business and the location and we’ll return results right on the page, along with a map, reviews, and contact information.

Example: french restaurant palatine

*Movie Showtimes*

To find reviews and showtimes for movies playing near you, type "movies" or the name of a current film into the Google search box. If you've already saved your location on a previous search, the top search result will display showtimes for nearby theaters for the movie you've chosen.

Example: movies “Red Riding Hood”

*Health Search*

*Health Conditions*

To see information about a common disease or symptom, enter it into the search box and we'll return the beginning of an expert summary. You can
click through to read the entire article.

Example: rhinovirus

*Medications*
To see information about most generic and brand name prescription drugs in the U.S., enter the drug name into the search box, and we'll display a summary and description of that medication. You can click through links from the National Institutes of Health to get more information about side effects, how to take the medication, precautions, dietary instructions, and what to do if you miss a dose.

Example: lipitor

*Poison Control*
You can quickly find the U.S. poison control hotline (1-800-222-1222) by entering "poison control" or similar phrases into the search box.

Example: “poison control”

*Suicide Prevention*
You can quickly find the phone number for the National Suicide Prevention Lifeline (1-800-273-8255) by entering "suicide prevention" or similar phrases into the search box.

Example: “suicide prevention”

*Flu Vaccine Finder*
During flu season, search for "flu" to find tips on how to stay healthy from U.S. Health and Human Services and a flu shot locator which uses Google Maps to show you nearby locations offering seasonal and/or H1N1 flu vaccine.

Example: flu

**Trip Planning**

*Flight Tracking*
To see flight status for arriving and departing U.S. flights, type in the name of the airline and the flight number into the search box.

Example: American 824
Currency Conversion
To use our built-in currency converter, simply enter the conversion you’d like done into the Google search box and we’ll provide your answer directly on the results page.

Example: $500 in euros

Maps
Looking for a map? Type in the name or U.S. zip code of a location and the word "map" and we’ll return a map of that location. Clicking on the map will take you to a larger version on Google Maps.

Example: 60074

Query Refinements

Plus (+) Operator
Google ignores common words and characters such as where, the, how, and other digits and letters that slow down your search without improving the results. If a common word is essential to getting the results you want, you can make sure we pay attention to it by putting a "+" sign in front of it.

Example: +the boxer

Related Search
To search for web pages that have similar content to a given site, type "related:" followed by the website address into the Google search box.

Example: related:amazon.com

Fill in the Blank
Sometimes the best way to ask a question is to get Google to ‘fill in the blank’ by adding an asterisk (*) at the part of the sentence or question that you want finished into the Google search box.

Example:

Search by Number

Package Tracking
You can track packages by typing the tracking number for your UPS, Fedex or USPS package directly into the search box. We’ll return results that include quick links to easily track the status of your shipment.
Example:

Other Numbers
You can also enter other commonly used identification numbers; these include telephone area code, upc codes and vehicle identification numbers (VIN).

Example: 0 44000 03755 0

Patent Numbers
To search for U.S. patents, enter the word "patent" followed by the patent number into the Google search box and hit the Enter key or click the Google Search button.

Example: Patent RE38782

Refining Your Basic Search using Operators

While the tools that we just discussed provide a lot of power, there are some basic ways in which you can adjust your original search terms to improve the chances of finding the information for which you are looking.

- **Phrase search (""")**
  By putting double quotes around a set of words, you are telling Google to consider the exact words in that exact order without any change. Google already uses the order and the fact that the words are together as a very strong signal and will stray from it only for a good reason, so quotes are usually unnecessary. By insisting on phrase search you might be missing good results accidentally. For example, a search for ["Alexander Bell"] (with quotes) will miss the pages that refer to Alexander G. Bell.

- **Search within a specific website (site:)**
  Google allows you to specify that your search results must come from a given website. For example, the query [ iraq site:nytimes.com ] will return pages about Iraq but only from nytimes.com. The simpler queries [ iraq nytimes.com ] or [ iraq New York Times ] will usually be just as good, though they might return results from other sites that mention the New York Times. You can also specify a whole class of sites, for example [ iraq site:.gov ] will return results only from a .gov domain and [ iraq site:.iq ] will return results only from Iraqi sites.
• **Terms you want to exclude (-)**
  Attaching a minus sign immediately before a word indicates that you do not want pages that contain this word to appear in your results. The minus sign should appear immediately before the word and should be preceded with a space. For example, in the query [ anti-virus software ], the minus sign is used as a hyphen and will not be interpreted as an exclusion symbol; whereas the query [ anti-virus -software ] will search for the words 'anti-virus' but exclude references to software. You can exclude as many words as you want by using the - sign in front of all of them, for example [ jaguar -cars -football -os ]. The - sign can be used to exclude more than just words. For example, place a hyphen before the 'site:' operator (without a space) to exclude a specific site from your search results.

• **Fill in the blanks (*)**
  The *, or wildcard, is a little-known feature that can be very powerful. If you include * within a query, it tells Google to try to treat the star as a placeholder for any unknown term(s) and then find the best matches. For example, the search [ Google * ] will give you results about many of Google's products (go to next page and next page -- we have many products). The query [ Obama voted * on the * bill ] will give you stories about different votes on different bills. Note that the * operator works only on whole words, not parts of words.

• **Search exactly as is (+)**
  Google employs synonyms automatically, so that it finds pages that mention, for example, childcare for the query [ child care ] (with a space), or California history for the query [ ca history ]. But sometimes Google helps out a little too much and gives you a synonym when you don't really want it. By attaching a + immediately before a word (remember, don't add a space after the +), you are telling Google to match that word precisely as you typed it. Putting double quotes around a single word will do the same thing.

• **The OR operator**
  Google's default behavior is to consider all the words in a search. If you want to specifically allow either one of several words, you can use the OR operator (note that you have to type 'OR' in ALL CAPS). For example, [ San Francisco Giants 2004 OR 2005 ] will give you results about either one of these years, whereas [ San Francisco Giants 2004 2005 ] (without the OR) will show pages that include both years on the same page. The symbol | can be substituted for OR. (The AND operator, by the way, is the default, so it is not needed.)

**Exceptions**
Search is rarely absolute. Search engines use a variety of techniques to imitate how people think and to approximate their behavior. As a result, most rules have
exceptions. For example, the query [ for better or for worse ] will not be interpreted by Google as an OR query, but as a phrase that matches a (very popular) comic strip. Google will show calculator results for the query [ 34 * 87 ] rather than use the 'Fill in the blanks' operator. Both cases follow the obvious intent of the query. Here is a list of exceptions to some of the rules and guidelines that were mentioned in this and the Basic Search Help article:

**Exceptions to 'Every word matters'

- Words that are commonly used, like 'the,' 'a,' and 'for,' are usually ignored (these are called stop words). But there are even exceptions to this exception. The search [ the who ] likely refers to the band; the query [ who ] probably refers to the World Health Organization -- Google will not ignore the word 'the' in the first query.
- Synonyms might replace some words in your original query. (Adding + before a word disables synonyms.)
- A particular word might not appear on a page in your results if there is sufficient other evidence that the page is relevant. The evidence might come from language analysis that Google has done or many other sources. For example, the query [ overhead view of the bellagio pool ] will give you nice overhead pictures from pages that do not include the word 'overhead.'

**Punctuation that is not ignored

- Punctuation in popular terms that have particular meanings, like [ C++ ] or [ C# ] (both are names of programming languages), are not ignored.
- The dollar sign ($) is used to indicate prices. [ nikon 400 ] and [ nikon $400 ] will give different results.
- The hyphen - is sometimes used as a signal that the two words around it are very strongly connected. (Unless there is no space after the - and a space before it, in which case it is a negative sign.)
- The underscore symbol _ is not ignored when it connects two words, e.g. [ quick_sort ].