

## Searching for Information on the Internet

Whatever profession we choose, searching for information on the Internet for business facts, addresses, maps and thousands of other important pieces of data is crucial to our own personal career goals and our company's success. While the Internet has vast amounts of facts presented by governmental agencies (.gov), educational establishments (.edu), non-profit groups (.org), the United States military (.mil), and private commercial enterprises (.com), we need to learn techniques on how to trim down the number of web pages that our search finds.

One part of the Internet is a collection of computers called web servers that contain web pages, which include mostly text and images. Many sites have or are adding music and videos to their list of choices now that high-speed data connections are prevalent. When a computer user wants to locate a certain fact, they can use a web browsing program such as Internet Explorer along with a corporate search engine such as Google.com, Yahoo.com, MSN.com and Ask.com.



Figure 1.1 – Locating the Pixar Homepage

Whatever we wish to discover, all we have to do is type a web address such as *www.pixar.com* on the address bar and press enter and the home page of the site appears. However, just visiting a homepage does not necessarily help us determine the data we wish to ascertain. Therefore, individual web browsers use Search Engine programs to assist them in obtaining facts.

Computer programmers working at Search Engine companies have already built a database by exploring the contents of the World Wide Web (www). There are multiple ways that information inside a web page can enter a search engine's database. One method is for the web designer to write keywords pertaining to their site in their HyperText Markup Language (HTML) code for their specific page. Another technique has the Search Engine programmers using Internet crawlers to scan the web page and report information back to the database. We can use the Internet Explorer browser and the Yahoo.com program to find previously scanned information.

For example, open the Yahoo.com search engine and type in the word "dog" in the Search textbox and then left click on the Web Search command button as shown.



Figure 1.2 – Searching on the Internet with Yahoo.com

## Internet Search Techniques

For most of us, we have our computers set to show ten web pages that meet the search criteria. As we can see in figure 1.3, our exploration has found the first ten hyperlinks to a total of 1.28 billion web pages.



Figure 1.3 – Searching for “Dog” at Yahoo.com

If we spent one minute looking at each web page by clicking on each of the 1.28 billion hyperlinks, one company could have a single person spending 2400 years looking at each page with the word “dog”. By the time that organization finished their investigation, we might have an additional billion web pages with dog information. Therefore, there has to be a better way of finding the statistics we need. First, we can examine normal search techniques.

If we type more than one word in the search textbox, we will see the number of pages containing these multiple words become smaller. For example, if we are trying to find the height of the Eiffel tower in feet, we could type Eiffel in the Google.com search box and 15.1 million web pages answer the Eiffel prompt. Now, type Eiffel Tower in the Google.com search box and the total number of pages is down to 6.14 million. Although we no longer are in the billions of web pages, millions of electronic documents are still too much to read.

In figure 1.4, we use phrases and multiple keywords to better define our search for the height of the Eiffel tower in feet. In the Google.com search box, type “Eiffel tower” in quotes making this text a phrase. Only web pages containing the word combination “Eiffel tower” will answer along with the single words that we added which are height and feet. Our results are down to 83,400 hyperlinked pages matching our search.

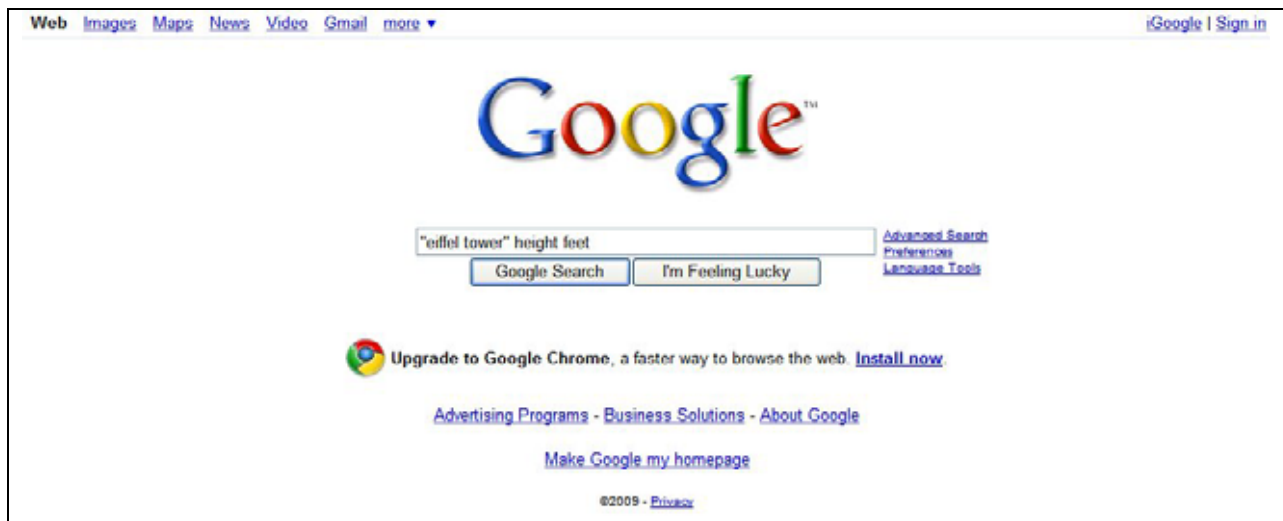


Figure 1.4 – Searching on the Internet with Google.com

## Internet Search Techniques

The makers of Search Engines have made searching even easier for browsers. Although many people have no trouble using advanced keyword searches by typing the special characters around the words, Search Engines have special pages to help with setting up advanced queries.

After our last search, for us to access the Google.com Advanced Search webpage, click on the Advanced Search hyperlink to the right of the Search command button.

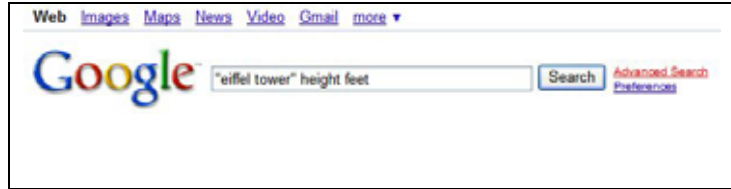


Figure 1.5 – Google.com’s Advanced Search

As we can see in figure 1.6, phrases typed inside quotes will be in the exact wording or phrase textbox and single keywords will be in the all these words box. We will define the search even more by restricting the search to English language websites. GO ahead and select English in the language list box. At the beginning of this lesson, we see that there are five major divisions in the cataloging of web addresses. The table below shows them again.

Web Suffix	Definition	Comment
.com	Commercial	Private enterprises
.edu	Education	Schools and colleges
.gov	Government	Governmental agencies
.mil	Military	United States military
.org	Organizations	Nonprofit

At the search within a site or domain box, we can type a web suffix or an entire website name to limit the results. In figure 1.5, we have typed “.gov”.

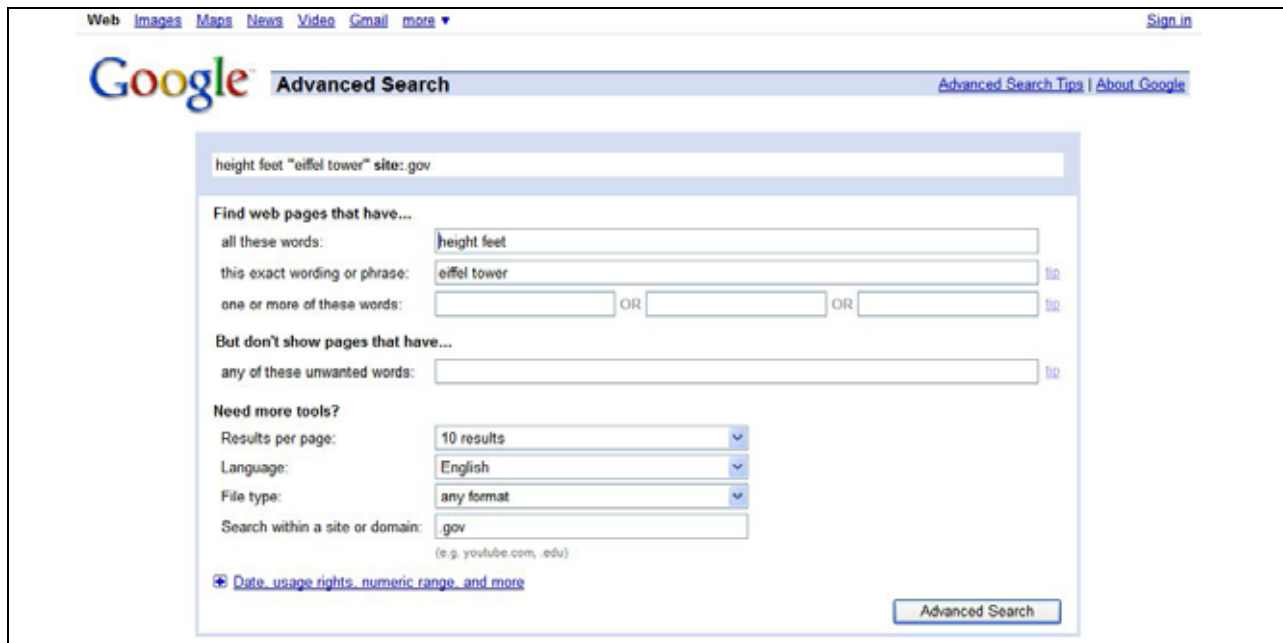


Figure 1.6 – Google.com’s Advanced Search

## Internet Search Techniques

The new search expression is now:

Height feet "Eiffel tower" site:.gov

Only 95 web pages out of the original 15 million answer to this exact inquiry. We can see the actual height figure in some of the descriptions for the web pages.

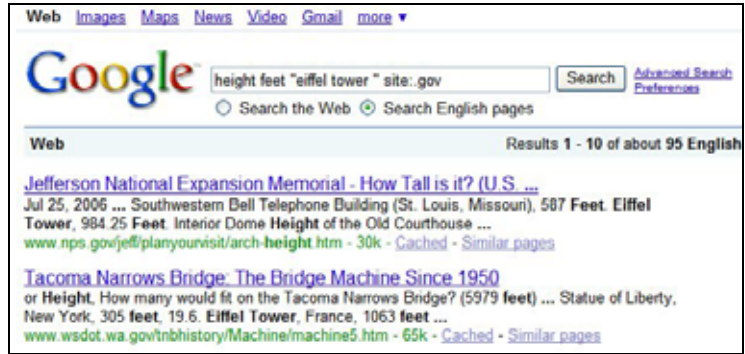


Figure 1.7 – Google.com Search Result

We can also observe that there are different answers to the same query on the web. This too happens in printed material when we visit a library. Heights of buildings can change based upon additions of radio towers and other remodeling projects. NPS.gov says the Eiffel Tower is 984.25 feet tall. Wsdot.wa.gov says the structure is 1063 feet high. NSA.gov says 984 feet. The important thing is to report the facts and quote the source that gives the piece of information.

## Using Minus Textstring when Searching for Information

Sometimes, we wish to subtract information to limit the size of our search results. For example, go to Live.com and type the phrase "top restaurant" and the keyword chef. After running the search, we find the number of pages at 286 thousand.

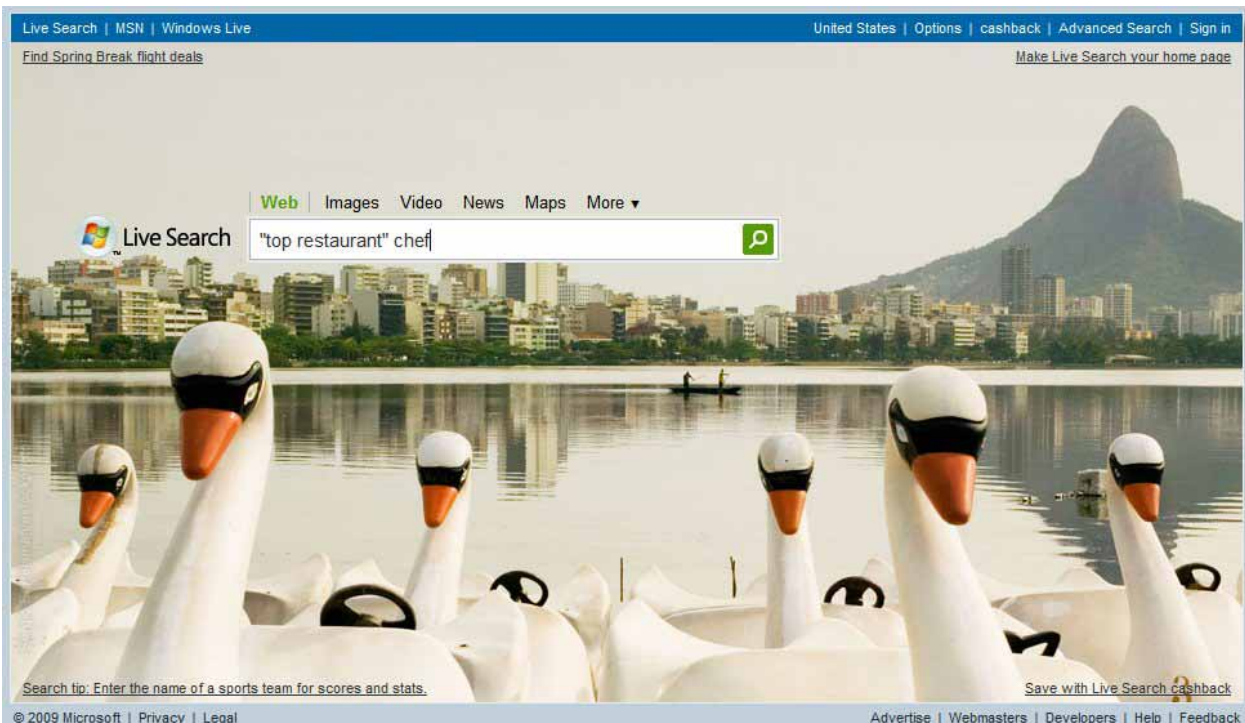


Figure 1.8 – Live.com Search Engine



## Internet Search Techniques

In some web search outcomes, we will pick up links to resumes, since many companies and individuals use the Internet for job placement purposes.



Figure 1.9 – Live.com Search Results

This time, we will add the statement “-resume” to the query to subtract any webpage that has the word “resume”. As we notice in figure 1.9, the results dwindle from the 286,000 to 90,000. Just to the right of the number of web results shown is the Live.com Advanced search link. Press the Advanced hyperlink so we can update our query even more.

Let us imagine that we are interested in French cuisine, so add the words French cuisine to the search box and select “this exact phrase” from the list box to the right. Press the Add to search command button. In figure 1.11, the image shows our results at 3970 with this modified search.

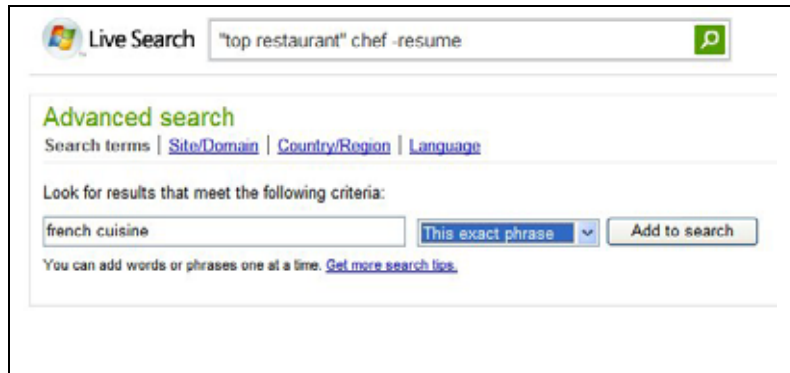


Figure 1.10 – Modifying a Live.com Search

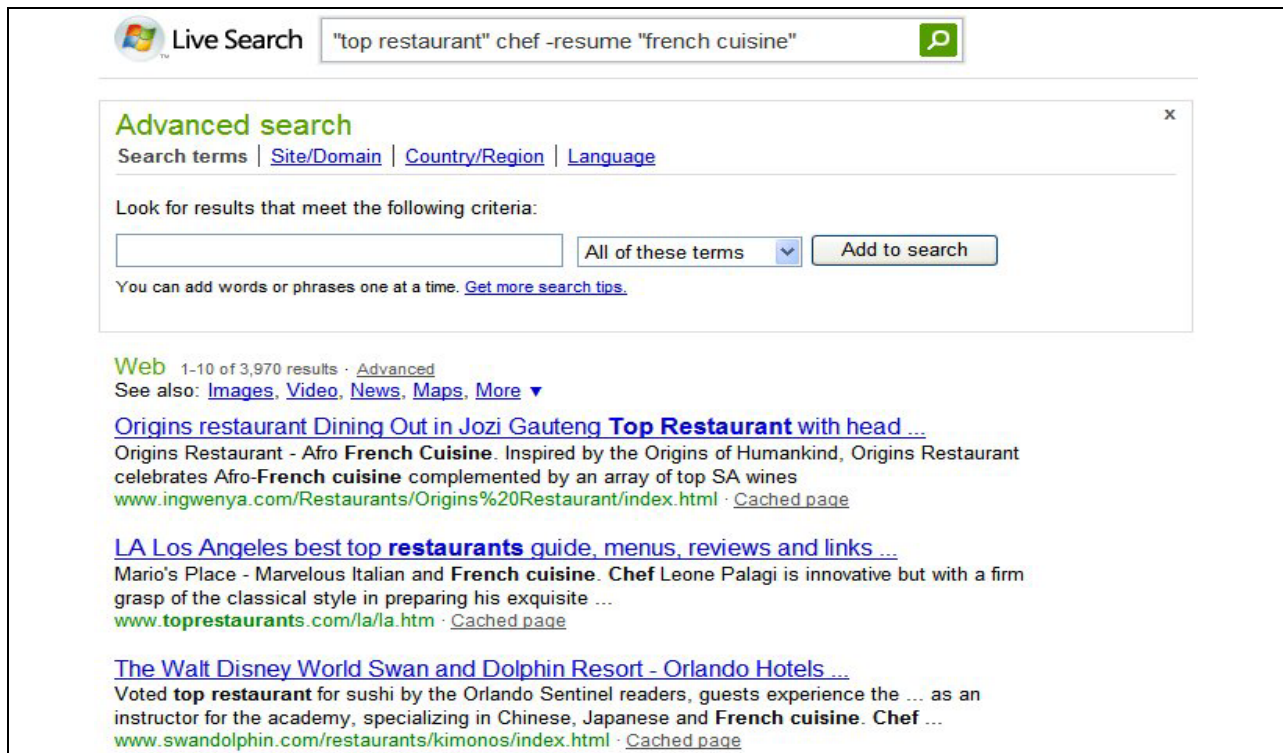


Figure 1.11 – Modifying a Live.com Search

Many times multiple phrases can help pinpoint the exact webpage containing the figures we desire. Tools that can narrow a current Internet search can be very useful.

## Using Wildcards when Searching for Information

Next, we will use wildcards to help us in searching for information. We can utilize an asterisks (\*) to search for multiple phrases.



Figure 1.12 – Using an Asterisks in a Google.com Search

For example, the search prompt “chef \* open” as shown in figure 1.12 can find the following.

**Chef Susan Feniger to open  
Chef’s Kitchen, Open  
Chef Emeril Lagasse open  
Chef de Projet Open  
Chef Skylar’s open**

Modify this search that received 38 million hyperlinked pages by restricting the query to education sites only and the question to Google.com is:

**Chef \* open site:.edu**

Now our results diminish to 68,000. If we are interested in competitions, we can add that word and rerun the program. At this time, our results are down to 198 pages with information we can read.

## Discovering Additional Search Tools

Yes, there are even more advanced search tools to learn. However, we need to practice the ones we have just learned. On the next page, there are eight questions that you can use the Internet to find the answer. Write down your beginning time when starting each query and your finish time when you write down the answer. Do the simple math to compute the total number of minutes to find the answer. With practice, your time will diminish when searching for data on the World Wide Web.

# Internet Search Techniques

Name:

Date:

- |  | Start time           | End time             | Total Time           |
|--|----------------------|----------------------|----------------------|
| 1. What is the height of the tallest building in Columbus, Ohio in feet?                             | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Answer   | <input type="text"/> |                      |                      |
| 2. What is the number one rated restaurant in Ohio?  | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Answer   | <input type="text"/> |                      |                      |
| 3. How many miles from the Columbus Culinary Institute to Martini Italian Bistro in the Short North? | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Answer   | <input type="text"/> |                      |                      |
| 4. What is the population of Franklin County, Ohio?  | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Answer   | <input type="text"/> |                      |                      |
| 5. Why is the abbreviation of ounce spelled "oz"?  | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Answer   | <input type="text"/> |                      |                      |
| 6. What is the name of the oldest restaurant in Ohio?  | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Answer   | <input type="text"/> |                      |                      |
| 7. What is the oldest continuously run restaurant in the United States? How long has it been run?    | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Answer   | <input type="text"/> |                      |                      |