Strategies for Studying, Learning, and Researching

By David Alderoty © 2014

Chapter 1) Basic Concepts for Web-Based Searches

1489 Words

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The Fundamentals of Searching the Web

Web Searches are Not Limited to Factual Information

With the advanced development of the World Wide Web, and search engines, you can quickly find information on just about any topic. However, web-based searches are **not limited** to factual information. You can find **FREE:** open-source software, e-books, photographs, videos, sound recordings, music, and online courses. You can search for items you want to purchase, such as hardcover books, computer equipment, school supplies, or anything else. You can search for professional services, such as, physicians, dentists, lawyers, and tutors. You can find the best college or graduate school for your needs. You can search for the personal

opinions of others about: a product, a service, a problem, or a life experience. Web-based searches are useful for locating funding sources for higher education, for research projects, and for starting a business. Some people successfully use web-based searches to obtain employment, to find friends, and to find a mate.

The Simplest Way to Search the Web

The simplest research method is familiar to most people. This involves using www.Google.com, and the following three steps:

1) Create a search phrase that relates to the information or entity that you want to find. If you want the information in a specific format, indicate that in your search phrase. Examples are **videos** of deep-sea animals, **PDF** deep-sea animals, or **e-book** of deep-sea animals. (Left click on the blue words to see the results of a Google search with these phrases.)

2) Enter the search phrase into the search box

3) Examine the search results. This must be done selectively, because of the large number of results that is usually obtained with a Google search.

I have found from experience that the above strategy is the quickest and most efficient method for finding information and resources on the web. However, this simple method sometimes fails to provide useful search results. When this is the case, use the more complex techniques described in Chapters 2 to 4.

Web Searching is a Trial and Error Process

With searches that are not very complex or unusual, you will probably find what you want on your first attempt. If your initial search fails, modify your search phrase, and try again. Sometimes it is necessary to repeat the search several times, with modified search phrases before you succeed. An important idea to remember is Web searching is a trial and error process, no matter what technique or search engine you use.

Double-Check the Information you Find on the Web

The information you find on the Internet is **not** always reliable. This is because anyone can place their articles, videos, opinions, comments and beliefs on the web, regardless of their knowledge or formal credentials. This has certain advantages as well as some potential disadvantages. Problems can arise if you are looking for information for a school assignment, or for any other serious endeavor. These problems can be prevented, by checking the validity of the information you obtain by consulting multiple sources. For a school assignment, the instructor and the textbook might be the best source. You can also use web-based sources that are academic authorities, such as those listed under the next subheading.

Academically Accepted Sources

There are a large number of reliable academic sources on the web. I listed a few examples two paragraphs below, which are online encyclopedias. These sources are most likely to provide reliable information that meets academic standards. Scholars write these encyclopedias, and they have their own built-in search engines. However, any source of information can be outdated, or otherwise incorrect. Thus, it is still best to check with multiple sources.

To access any of the sources listed below, left click on the blue words or the URL. If a link fails, do a Google search, with the some or all, of the underlined blue words.

Words on website: **Columbia Encyclopedia, URL is http://education.yahoo.com/reference/encyclopedia**

Words on website: **ENCYCLOPEDIA Britannica URL is www.britannica.com**

Words on website: Scholarpedia the peer-reviewed open-access encyclopedia, where knowledge is curated by communities of experts, URL is www.scholarpedia.org

Words on website: **EOL Encyclopedia of Life URL is http://eol.org, (The above is focused on the life sciences.)**

Words on website: **MedlinePlus, Medical Encyclopedia A service of the U.S. National Library of Medicine, URL is www.nlm.nih.gov/medlineplus/encyclopedia.html**

The Two Components for Web-Based Searches

Web Browser, and a Search Engine

Web-based searches require a web browser, and a search engine. Some people are confused about these two items. To clarify these concepts I will present a few **simplified** descriptions and explanations, under the following subheadings. This will include some practical information on web browsers and search engines.

What is a Web Browser?

A web browser is software that provides the functionality for accessing and viewing webpages, and they are usually installed on most desktop and laptop computers. Modern Web browsers work with other software called plug-ins to provide additional functionality, such as for accessing web-based videos, sound recordings, and online applications.

From a technical perspective, web browsers with their plug-ins: interpret the computer code that is used on the web, for a computer with a specific operating system, such as for Windows, for Macintosh, or for Linux. As a result, most web-based content can be accessed and used with almost any operating system that has a compatible web browser.

There are many brands of free Web browsers, which are available by downloading. You should download web browsers from reliable sources only, such as the website of the manufacturer

of the web browser. If this is not done, you might get a browser that was modified to limit web-based searches, and to focus on advertisements. You might even get a browser that is infected with viruses.

You must download web browsers that are designed for the operating system on your computer. However, many of the browser manufactures automatically detect the operating system on your computer, when you access their website. With this technique, they display the download link of the browser that is compatible with your computer's operating system.

Popular Web Browsers

Listed below are four examples of high quality web browsers. This includes links to access the manufactures website, where you can download the browsers and install them on your computer. If a link fails, go to the manufacture's website, and search for the latest download.

Internet Explorer (from Microsoft www.Microsoft.com)
http://windows.microsoft.com/en-us/internet-explorer/download-ie

Google Chrome (from Google)
www.google.com/intl/en/chrome/browser

Mozilla Firefox (from Mozilla: www.mozilla.org)
www.mozilla.org/en-US
Opera (Opera Software) www.opera.com

Less Well Known Web Browsers

There are a number of less well-known browsers, which can be downloaded from the following websites:

(From www.mozilla.org) www.SeaMonkey-project.org

(From Yandex) http://Browser.Yandex.com

(From www.lunascape.org) www.lunascape.tv

(From Maxthon) www.maxthon.com

What Is a Search Engine?

There are simple search engines that are incorporated into various types of software, such as the find function in Microsoft Word. This is **NOT** the type of search engine that I am describing in this chapter. This section deals with web-based search engines, which are highly complex systems, but they are relatively easy to use. I present a simplified, but practical definition and description of a web-based search engine in the following paragraph.

A search engine is a **special website** that has a **mechanism with a search box.** When a user enters a word or phrase in the search box, and clicks on an icon, the **mechanism** carries out a search to find web-based documents that contain the words the user entered. Examples are www.Google.com and www.Bing.com.

From a technical perspective, most search engines are

comprised of two or more computer systems, with special software. First, there are the web crawlers, which are also called Internet bots. These devices are powerful computers that have software designed to scan the web automatically. During the scanning process information is gathered about web-based content. This information is automatically stored in a database, with related hyperlinks to access webpages, videos, PDF documents, and other web-based material.

The databases compiled by the web crawlers are scanned by another set of computers when a user submits a search phrase. The web content that matches the search phrase is displayed on the user's computer on one or more webpages. This usually involves a list of brief descriptions and related hyperlinks for accessing webpages, videos, and other material that matched the user search criteria.

Popular Search Engines

There are a number of search engines available on the web, but I found from experience that www.Google.com usually provides the best search results. However, www.Yahoo.com, www.Bing.com and www.Search.Ask.com can also provide very useful results.

Less Well Known Search Engines

There are many less well-known search engines available on the web. Some of these search engines might provide search results

that are different, from the populous search engines, mentioned above. However, some of these search engines display a limited set of results. Below, there are examples of less well-known search engines.

www.Yandex.com
www.FindSmarter.com ,
http://search.lycos.com
https://duckduckgo.com
www.ixquick.com
www.excite.com
www.search.ch
www.search.com
www.dogpile.com
http://addictomatic.com
www.keotag.com
http://search.url.com
www.chacha.com

From Other Authors: Additional and Supporting Information, and Alternative Perspectives, for Chapter 1

Instructions

If you want more information, alternative perspectives or explanations, see the following websites and videos from other authors. To access this material left click on the blue links, or the URLs presented below.

If a link fails, enter the indicated **search phrase** or the ***words that are displayed from the website,** into the search engine presented on the left of each entry. *Note the words from the website are indicated with **Words on website:** If you examine the following entries all of the above will be clarified.

Webpages from Other Authors, to Supplement Chapter 1

www.Google.com Search phrase: Basic search strategies This is a Google search page, which indicates 63,300,000 results.

www.Google.com Words on website: Basic Search Strategies URL is http://libguides.princeton.edu/google

www.Google.com Words on website: Building Better Google Searches URL is: http://libguides.csusb.edu/BetterGoogle

www.Google.com Words on website: Basic Search Strategies URL is http://libguides.princeton.edu/google

www.Google.com Words on website: Basic search strategy in 10 steps URL is: http://goo.gl/cRjsIb

www.Google.com Words on website: A BASIC TUTORIAL ON SEARCHING THE WEB URL is HTTP://GOO.GL/NBQ6J

www.Google.com Search phrase: "Web Browser" and "search engines" This is a Google search page, which indicates 3,460,000 results.

www.Google.com Words on website: Web search engine URL is http://en.wikipedia.org/wiki/Web_search_engine

www.Google.com Words on website: What is the difference between a web browser and a search engine? URL is http://goo.gl/8wAM4l

www.Google.com Words on website: What Is the Difference between a Web Browser and a Search Engine? URL is http://goo.gl/ML6bNq

www.Google.com Words on website: Google Operating System URL is: http://goo.gl/g8qjLr

Videos from Other Authors, to Supplement Chapter 1

When you left click on a **link** for a video, a webpage will open, and the video will start automatically in most cases. The webpage that opens with the video will usually have 10 or more **RELEVANT** videos. If the video does not start automatically, and the webpage opens, left click on the link provided by the author of the video. This link is usually in the center of the screen.

www.Video.Google.com Search phrase Basic Search Techniques This is a Google video search page, which indicates 21,100,000 results.

www.Video.Google.com Words on website: Basic Search Techniques Ralph Phillips URL is: www.youtube.com/watch?v=z1AjKzjLf8I

www.Video.Google.com Words on website: OPAC BASIC SEARCH TECHNIQUES, URL is: www.youtube.com/watch?v=AgDxzc8V30g

www.Video.Google.com Words on website: Web Search Strategies for Research URL is: www.youtube.com/watch?v=tJQo_pw74ZY

www.Video.Google.com Search phrase: "Web Browser" and "search engines" This is a Google video search page, which indicates 198,000 results.

www.Video.Google.com Words on website: Search Engine vs. Web Browser : Tech Yeah!, URL is http://goo.gl/mxX8Nm

www.Video.Google.com Words on website: Filter bubbles in internet

search engines URL is: www.youtube.com/watch?v=nwspK-FfOo4

www.Video.Google.com Words on website: Understanding search engines URL is http://goo.gl/lQmCAv

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