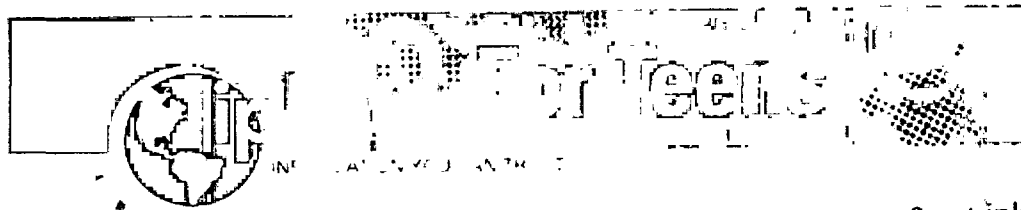


For a college composition class, you are writing a research paper exploring the following question:

Can the Internet be used effectively for research?

You need 5-7 sources. No more than two can come from the Internet.



Search: For Teens

Search ipl2

Search Help

A+ Research & Writing Info Search

Learning to research on the Web

Note: the links below take you further down on this page.

- [Cyberspace is not like your library](#)—two librarian's jokes which aren't very funny
- [Get to know the reference sources on the Web](#)—what information is found there?
- Tips, tools and techniques for Web research:
 - [Understand](#) how search engines work
 - [Know the difference](#) between a search engine and a directory
 - [Consult](#) the reference librarian for advice
 - [Learn about](#) search syntax and professional search techniques
 - [Learn some essential browser skills](#) - bookmarks, favorites and "save as"

Info Search

[Learning to Research in the Library](#)

[Information Found—and Not Found—on the Web](#)

[Learning to Research on the Web](#)

[Search Strategy: Getting a Broad Overview of a Subject](#)

[Skills for Online Searching](#)

[Search Strategy: Finding Specific Information](#)

Cyberspace is not like your library

Librarians have a weird sense of humor. This is now an old joke: The internet is like a library with no catalog where all the books get up and move themselves every night...This was the state of the internet up until 1995 or thereabouts. Finding anything on the internet required comic strip characters like Archie, Veronica and Jughead, and generally you were the one who ended up feeling like a jughead when you rooted around for hours and still came up dry.

The new joke is: The internet is like a library with a thousand catalogs, none of which contains all the books and all of which classify the books in different categories—and the books still move around every night. The problem now is not that of "finding anything" but finding a particular thing. When your search term in one of the popular search engines brings back 130,000 hits, you still wonder if the one thing you're looking for will be among them.

This can be an enormous problem when you're trying to do serious research on the internet. Too much information is almost worse than too little, because it takes so much time to sort through it to see if there's anything useful. The rest of this section will give you some pointers to help you become an effective internet researcher.

Get to know the reference sources on the internet

Finding reference material on the Web can be a lot more difficult than walking into the Reference Room in your local library.

The subject-classified Web directories described below will provide you with your main source of links to reference materials on the Web. In addition, many public and academic libraries, like the Internet Public Library, have put together lists of links to Web sites, categorized by subject. The difficulty is finding Web sites that contain the same kind of substantive content you'd find in a library. See the section on [Reference Sources on the Web](#) for a list of some Web-based reference materials, but please read [Information found—and not found—on the Web](#) to understand why it's different from using the library.

Understand how search engines work

Search engines are software tools that allow a user to ask for a list of Web pages containing certain words or phrases from an automated search index. The automated search index is a database containing some or all of the words appearing on the Web pages that have been indexed. The search engines send out a software program known as a spider, crawler or robot. The spider follows hyperlinks from page to page around the Web, gathering and bringing information back to the search engine to be indexed.

Most search engines index all the text found on a Web page, except for words too common to index, such as "a, and, in, to, the" and so on. When a user submits a query, the search engine looks for Web pages containing the words, combinations, or phrases asked for by the user. Engines may be programmed to look for an exact match or a close match (for example, the plural of the word submitted by the user). They may rank the hits as to how close the match is to the words submitted by the user.

One important thing to remember about search engines is this: once the engine and the spider have been programmed, the process is *totally automated*. No human being examines the information returned by the spider to see what subject it might be about or whether the words on the Web page adequately reflect the actual main point of the page.

Another important fact is that all the search engines are different. They each index differently and treat users' queries differently (how nice!). The burden is on the searcher to learn how to use the features of each search engine. See the links to [Search Engines](#) and to sources which have done [Evaluations](#) of the various features of Web directories and search engines.

See the [Web and internet tutorials](#) in the Links section for online articles about search engines.

Know the difference between a search engine and a directory

A search engine like Google or Hotbot lets you seek out specific words and phrases in Web pages. A directory is more like a subject index in the library—a human being has determined the main point of a Web page and has categorized it based on a classification scheme of topics and subtopics used by that directory. Some examples of directories are Yahoo! and the [Internet Public Library](#). Many of the search engines have also developed browsable directories, and most of the directories also have a search engine, so the distinction between them is blurring.

To get an idea of the differences between directories and search engines, visit School Libraries on the Web's page "Searching the Internet" at <http://www.sldirectory.com/search.html> (Berland, 2002)

See the links to Web directories and to sources which have done [Evaluations](#) of the various features of Web directories and search engines.

Consult the reference librarian for advice

Reference librarians can often be of great help in planning your internet research. Just as they know their library's collection, they probably have done a lot of research on the internet and know its resources pretty well. They're also skilled at constructing search terms and using search engines, and they're trained to teach others how to search.

Learn about search syntax and professional search techniques

To be successful at any kind of online searching, you need to know something about how computer searching works. At this time, much of the burden is on the user to intelligently construct a search strategy, taking into account the peculiarities of the particular database and search software. The section on [Skills for online searching](#) will help.

Learn some essential browser skills

Know how to use your browser for finding your way around, finding your way back to places you've been before and for "note-taking" as you gather information for your paper. A large part of effective research on the Web is figuring out how to stay on track and not waste time—the "browsing" and "surfing" metaphors are fine for leisure time spent on the Web, but not when you're under time pressure to finish your research paper. Lots of colleges have Netscape tutorials - see [Web and internet tutorials](#) for links which will supplement the information below

URLs

Understand the construction of a URL. Sometimes a hyperlink will take you to a URL such as <http://www.sampleurl.com/files/howto.html>. You should know that the page "howto.html" is part of a site called "www.sampleurl.com." If this page turns out to be a "not found" error, or doesn't have a link to the site's home page, you can try typing in the location box "<http://www.sampleurl.com/>" or "<http://www.sampleurl.com/files/>" to see if you can find a menu or table of contents. Sometimes a file has been moved or its name has changed, but the site itself still has content useful to you—this is a way to find out.

If there's a tilde (~) in the URL, you're probably looking at someone's personal page on a larger site. For example "<http://www.bigsite.com/~jonesj/home.html>" refers to a page at www.bigsite.com where J. Jones has some server space in which to post Web pages.

Navigation

Be sure you can use your browser's "Go" list, "History" list, "Back" button and "Location" box where the URL can be typed in. In Web research, you're constantly following links through to other pages then wanting to jump back a few steps to start off in a different direction. If you're using a computer at home rather than sharing one at school, check the settings in your "Cache" or "History list" to see how long the places you've visited will be retained in history. This will determine how long the links will show as having been visited before (i.e, purple in Netscape, green in our site). Usually, you want to set this period of time to cover the full time frame of your research project so you'll be able to tell which Web sites you've been to before.

Bookmarks or favorites

Before you start a research session, make a new folder in your bookmarks or favorites area and set that folder as the one to receive new bookmark additions. You might name it with the current date, so you later can identify in which research session the bookmarks were made. Remember you can make a bookmark for a page you haven't yet visited by holding the mouse over the link and getting the popup menu (by either pressing the mouse button or right clicking, depending on what flavor computer you have) to "Add bookmark" or "Add to favorites." Before you sign off your research session, go back and weed out any bookmarks which turned out to be uninteresting so you don't have a bunch of irrelevant material to deal with later. Later you can move these bookmarks around into different folders as you organize information for writing your paper—find out how to do that in your browser.

Printing from the browser

- Sometimes you'll want to print information from a Web site. The main thing to remember is to make sure the Page Setup is set to print out the page title, URL, and the date. You'll be unable to use the material if you can't remember later where it came from.

"Saving as" a file

Know how to temporarily save the contents of a Web page as a file on your hard drive or a floppy disk and later open it in your browser by using the "file open" feature. You can save the page you're currently viewing or one which is hyperlinked from that page, from the "File" menu or the popup menu accessed by the mouse held over the hyperlink.

Copying and pasting to a word processor

You can take quotes from Web pages by opening up a word processing document and keeping it open while you use your browser. When you find text you want to save, drag the mouse over it and "copy" it, then open up your word processing document and "paste" it. Be sure to also copy and paste the URL and page title, and to record the date, so you know where the information came from.

Be prepared to cite your Web references

Find out what form of bibliographic references your instructor requires. Both the MLA and APA bibliographic formats have developed rules for citing sources on CD-ROM and the internet. Instructions for Citing Electronic Sources are linked from the Internet Public Library.



A+ Research & Writing for high school and college students was created by Kathryn L. Schwartz

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