

Introduction to the Internet & Web

The libraries use the internet as a means of access to both electronic and print information sources. This guide, developed for one of our E-info Labs, attempts to answer some of the questions that academic researchers who are new to the internet often have....

- ◆What is the internet?
- ◆What is the World Wide Web?
- ◆What is a web browser?
- ◆Where is the information located?
- ◆Who's putting information on the internet?
- ◆What are some problems that I may encounter?
- ◆What is the best way to search?
- ◆How can I evaluate the information I find?
- ◆How do I cite the information?
- ◆Should I always start my research by searching the web?
- ◆Where can I get more information about the internet?

What is the Internet?

"The Internet is a network, linking computers to computers. Each runs software to provide or 'serve' information and/or to access and view information. The Internet is the transport vehicle for the information stored in files or documents on another computer....It is sometimes compared to a giant international plumbing system. The Internet itself does not contain information. It is a slight misstatement to say a 'document was found on the Internet.' It would be more correct to say it was found through or using the Internet....Computers on the Internet may use one or all of the following Internet services:

- ◆Electronic mail (e-mail). Permits you to send and receive mail. Provides access to discussion groups called Listservs.
- ◆Telnet or remote login. Permits your computer to log onto another computer and use it as if you were there.
- ◆FTP or File Transfer Protocol. Allows your computer to retrieve files from a remote computer and view or save them on your computer.
- ◆Gopher. An early, text-only method for accessing internet documents. To a large degree, gopher has been subsumed in the World Wide Web. You may find gopher documents linked to in web-pages."

This definition is from *What is the Internet, the WWW, and Netscape? An Introduction* by Joe Barker, University of California, Berkeley (see <http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/WhatIs.html#Internet>).

What is the World Wide Web?

The World Wide Web incorporates all the internet services listed above, and more, including the ability to view images, look at video, and hear sound recordings.

Using a web browser, you can move from location to location on the internet via text or graphical links called hypertext or hypermedia links. Authors of internet documents can thus allow you to access related sources in a non-hierarchical manner. Web documents are usually created using Hypertext Markup Language, or HTML, and are often referred to as "sites" or "pages".

While counts vary, some people put the total number of known web pages in the billions.

What is a web browser?

A web browser is a software program which allows you to access and display the information that is on the internet. **Netscape Navigator** and **Microsoft Internet Explorer** are the two most commonly used browsers. They allow you to access text, images, videos and sounds (if you have a multimedia computer). Some of the basic features of web browsers are:

- ◆**Navigation buttons:** Allow you to move back, forward, home, etc.
- ◆**Search & Guide:** Includes a selection of some search engines and subject guides endorsed by the browser.

- ◆ **Bookmarks/Favourites:** Allow you to “bookmark” a document so you can quickly return. This allows you to create your own personal organized list of internet sites.
- ◆ **Location/Address box:** Indicates the address of the document currently displayed.
- ◆ **Printing:** Prints the currently displayed web page, or active frame. Note that newer browsers have a “print preview” feature.
- ◆ **Saving:** Allows you to save a document in plain (ASCII) text, or HTML.

The latest versions of Netscape (<http://www.netscape.com/>) and Explorer (<http://www.microsoft.com/>) can be freely downloaded from the internet for educational use. Lynx (<http://lynx.browser.org/>), the major surviving text-only browser can also be downloaded for free.

Where is the information located?

The location of the document that is displayed with a web browser is indicated in the browser’s Location/Address box. The internet address indicated here is in the form of a URL (Uniform Resource Locator). URLs can have roughly four parts: the **protocol**, the **host name**, the **directory**, and the **file name**. Here is an example:

<http://www.lib.unb.ca/instruction/InfoSearch.html>

- ◆ **InfoSearch.html** - The **file name** is the name of the specific document or file displayed. Web HTML files usually have “.html” or “.htm” extensions. (See http://www.lib.unb.ca/instruction/internetintro_exercise1.html for more about other file types.)
- ◆ **/instruction/** - The **directory** is the location of the file or document on the host computer.
- ◆ **www.lib.unb.ca** - The **host name** (sometimes called *machine name*, or *domain name*) identifies the host computer on the internet where the document is stored. Every host computer on the internet has a unique numerical address. UNB’s address, for example, is 131.202.3.39. So that internet users would not have to remember numbers, the Domain Name System (DNS) was developed to translate the numbers into words.

The right-most portion of a host name (e.g., “.ca”), the domain suffix, can be either a country code or a descriptive zone name. (See http://www.lib.unb.ca/instruction/internetintro_domains.html for more about domain suffixes.)

Typing just the host name into the location/address box of your browser will often get you to an organization’s home page. (See http://www.lib.unb.ca/instruction/internetintro_exercise2.html on guessing home pages.)

- ◆ **http://** - The **protocol** indicates *how* you are connecting to the document. It is the way in which the document or file is accessed, that is, the protocol by which the data is transmitted. Web pages use HTTP (HyperText Transfer Protocol), and therefore the most common protocol you will encounter on the web is HTTP. However, the web also incorporates the older Gopher, Telnet, FTP (File Transfer Protocol), and E-mail protocols. (See http://www.lib.unb.ca/instruction/internetintro_exercise3.html for more information on these types of protocols.)

Who’s putting information on the Internet?

Individuals and organizations make information available through the internet for a variety of reasons. Some of this information is freely available to the general public, while some of it is restricted to a particular user community.

For example, UNB Libraries has made many e-Resources (<http://www.lib.unb.ca/eresources/>) available through the internet, but some of these cannot be made available outside of the UNB/STU community due to licence restrictions. Therefore, these databases are restricted by password from off-campus.

However, there is a wealth of information that *any* researcher can access. The following are some of the people who put information on the internet, and the types of information they make freely available.

- ◆ **Governments** often have a mandate to make information freely available to their citizens, and are publishing a wealth of statistical and other information on the web.
- ◆ **University researchers, educators and students** make available various types of academic information, including “unpublished” articles.

- ♦ **Non-profit organizations** post information on various topics.
- ♦ **Commercial companies** provide useful supplementary information on their commercial web sites, sometimes providing the general public with limited access to databases.
- ♦ **Publishers** provide excerpts of their print publications, usually periodical issues. There are also a growing number of free e-zines and e-journals.
- ♦ **Archives and Libraries** are digitizing publications for which copyright has expired and making them available on the web.
- ♦ **Libraries** also often make catalogues of their holdings freely available.
- ♦ **Individuals** post information about topics of personal interest.

What are some problems that I may encounter?

Researchers are often frustrated in their attempts to search for information on the internet. These frustrations usually relate to one of three things:

- ♦ **Access:** Finding the information you need can be very difficult. It may be out there somewhere, but you may have to weed through a lot of junk to get to it.
- ♦ **Permanence:** A old librarian joke: "The internet is like a library with no catalogue where all the books get up and move themselves every night." Quite literally, information that you find one day may disappear the next.
- ♦ **Quality:** The quality control procedures that exist in the world of academic publishing, for example, do not exist on the internet. Any individual or organization can post information, so you need to carefully evaluate the information you find. (See "How can I evaluate the information I find?" below)

What is the best way to search?

There are hundreds of search tools on the internet. They can be divided into two basic categories: *search engines* and *subject catalogues*. These differ in the amount of human evaluation that is used. Search engines usually find sites through an automatic process. They find a lot of sites, including a lot of junk. Subject catalogues (also called *subject directories* or *indexes*) usually find sites that have been selected by librarians or subject experts, and the sites are often evaluated and rated. Subject catalogues find fewer sites than search engines, but they are usually the best sites. For a list and description of some of the standard subject and searching sites, consult UNB Libraries' Brief Guide to Internet Sites.

(See http://www.lib.unb.ca/subject_guides/science/BriefGuide/)

How can I evaluate the information I find?

When using the internet for research, you always need to carefully evaluate what you find. The following are five criteria by which publications have traditionally been evaluated, with special considerations for internet sites:

1. **Accuracy:** Are the facts right? Is any documentation provided? You may need to double-check the facts yourself with another source you know to be reliable.
(See http://www.lib.unb.ca/instruction/internetintro_eval_accuracy.html for more information.)
2. **Authority:** Is an author listed? What are the author's qualifications? Remember that almost anybody can put things on the Internet. Also take a close look at the URL (the site's address), which may indicate who has published the page. Is the domain suffix ".com" (a commercial site selling or advertising a product or service), ".edu" (an educational organization, such as a university), or ".gov" (a government agency)?
(See http://www.lib.unb.ca/instruction/internetintro_eval_authority.html for more information.)
3. **Objectivity:** What is the purpose of the page? Does the page attempt to be balanced, or does it provide links to other viewpoints? Determine if the information contains a minimum of bias, or if the author is trying to sway opinion. Also, consider whether or not the page is intended to be ironic.
(See http://www.lib.unb.ca/instruction/internetintro_eval_objectivity.html for more information.)
4. **Currency:** Is a date given? Is it the date created, or last updated? For some assignments, current information is essential. Also remember that web pages change overnight, so what you retrieve one day may not be there the next.
(See http://www.lib.unb.ca/instruction/internetintro_eval_currency.html for more information.)

5. **Coverage:** When evaluating the coverage of the topic at hand (as explained above under criteria #3) remember to evaluate individual sites separately. The author or publisher of one site is not responsible for the quality of other sites to which their site is linked. Furthermore, note that the coverage of the electronic version of a publication may not be the same as the print version. For example, an article from an online newspaper may be different from the article in the print version of the same newspaper.

(See http://www.lib.unb.ca/instruction/internetintro_eval_coverage.html for more information.)

Finally, pay attention to your common sense instincts. Maybe a site has too many unnecessary “bells and whistles”, or perhaps there are many spelling and grammatical errors, or maybe it just seems to be intentionally bogus. Ultimately, the expertise on the internet is found in the researcher in front of the screen. You must always apply your own critical evaluation skills to what is found there.

This section is based on the web evaluation framework established by Jan Alexander and Marsha Ann Tate, Wolfgram Memorial Library, Widener University (see Evaluating Web Resources at <http://www2.widener.edu/Wolfgram-Memorial-Library/webevaluation/webeval.htm>).

How do I cite the information?

When citing electronic publications in a bibliography or list of works cited you need to declare both where (e.g., database name and/or URL) and when you retrieved the publication. Keep in mind that the whole point of a bibliography is to enable another person to find the publications listed. The library has citation style example sheets for both APA and MLA styles. (See <http://www.lib.unb.ca/reference/Bookmarks.html#Cit>)

Should I always start my research by searching the web?

No, not always. Don't waste your time looking for information in the wrong place. Talk to an Information Services Librarian first. The library may have a print or electronic information source that may be more useful. Or, there may be a database on the internet that a typical web search would not reveal.

Where can I get more information about the Internet?

More online internet guides are listed in the “Starting Out”, “About Searching”, and “Evaluating Sites” sections of UNB Libraries' Brief Guide to internet Sites (see http://www.lib.unb.ca/subject_guides/science/BriefGuide/). Also check the sites below.

Glossaries

Glossary of Internet Terms (<http://www.matisse.net/files/glossary.html>)

Produced by Internet Literacy Consultants (ILC), this extensive glossary covers many of the terms used throughout this *Introduction to the Internet & Web*.

Webopedia.com (<http://www.pcwebopedia.com/>)

A dictionary of computer and internet terms.

History & Stats

Hobbes' Internet Timeline (<http://www.isoc.org/zakon/Internet/History/HIT.html>)

An Internet timeline highlighting some of the key events and technologies which helped shape the internet as we know it today. Produced by Robert H'obbes' Zakon, self-described *Internet Evangelist* working at the MITRE Corporation.

The Internet Society's (ISOC) History of the Internet (<http://www.isoc.org/internet-history/>)

A listing of authoritative histories, some of which are written by the individuals who created the internet.

Books

If you want more information from a book, search Quest, UNB Libraries' catalogue, using *internet* as a subject keyword. Or check your local bookstore.

For more information click on Help from www.lib.unb.ca