Colleges and universities are being transformed by the technological revolution of the World Wide Web. The Web presents a host of new challenges to researchers. Web sites are not organized like books in a library, and it would be impossible to catalog all of its sites. No one, after all, owns the Internet and there is no central organization in place to enforce quality or editorial standards. Within Web pages themselves, finished prose mixes freely with conversation, art with advertising, and careful research with reckless hearsay. Information is often published on the Web which no serious publisher would touch. For this reason, Web sites are considered less authoritative research sources than articles and books that undergo professional scrutiny from editorial boards and scholarly peers.

Finding Web Resources

There are two basic ways to find information on the World Wide Web: You can browse directories by subject, or you can search by keyword in search engines. While search engine databases are created by computer programs, directories are created and maintained by people. Neither directories nor search engines cover the entire Web.
Browsing directories can be a very effective way to find the resources you need, especially if you need general information on a subject. If you are at the beginning of your research, or if you are searching for an overview of a topic at hand, it may also be helpful to use a directory.

Links and reviews of popular web search engines can be viewed at Greg Notess Search Engine Showdown.

Evaluating Web Resources

Start with the right attitude ? be suspicious and ask questions!

1. What is the Sites Purpose?

Most Web sites are not designed with the student researcher in mind. Companies design Web sites to advertise products to the browsing public at large, special interest groups create sites for select audiences (for those who might share or oppose their views), and scholars may publish research on the Web for professional academic audiences. To understand how the information contained in Web sites fits into the framework of a research project, or if indeed any of it is appropriate, consider the site's purpose.

   Is the site supposed to be educational or entertaining?

   Is this site meant to be informational or promotional?

   Is the presentation one sided or is there obvious bias?

   Typos, spelling errors, and bad grammar are all indicators of a lack of editorial review.

   What is the relative value of the Web site in comparison to the range of all other information resources available on this topic?

2. Authorship & Authority
There are a few fundamental problems involved in Web research. Anyone with the right software and access to the Internet can publish a document on the Web, regardless of the accuracy of the information, or the quality of its presentation. While low budget pamphlets and vanity press books are easy to spot because of their cheap paper, weak bindings, and photocopied print, visual signs of self-publication are sometimes difficult to find in a well-designed Web site.

Another matter of concern for researchers - though this is a great advantage for Web authors - is that Web pages can be altered by the author at any time, and as often as the author chooses. It is possible for you to quote a Web page in a paper, then return to the page in the future and find that the passage you quoted has been rewritten or deleted. Unless there are strict guarantees of the stability of the information on a Web site, it should be considered a work in progress.

To gauge the authority of a Web page, you should consider the author/Web page producer. The author's name and e-mail address should be provided somewhere on the site's home page. Consider the following questions:

Is the author an authority in the field, or just a commentator?

What are the author's qualifications?

Does the author indicate his/her affiliation?

Does the author have any other publications?

If the author has a list of links of interest, do the selections or annotations suggest that the author may have a bias or special interest?

Can the reader contact the author directly?

If the author is identified as an organization, are there links to its home page or to pages containing information as to its purpose/philosophy?
3. The Site’s Host or Sponsor

The domain name in the URL can be a useful source of information for considering the value of the content of a Web page. The list below is not exhaustive, it merely examines some of the more common suffixes.

.COM sites are usually commercial or business sites. They want to sell the reader a product or service and may be expected to sing its praises without mentioning its faults. Remember that some .COM sites are merely the hosts for personal or organization web pages. Examples include www.geocities.com and www.fortunecity.com.

.ORG sites usually exist to persuade the reader to a point of view. Their accuracy lies in the eyes of the beholder. Consider the National Rifle Association and Handgun Control Inc. It can be very useful to look at .ORG sites from opposing camps.

.GOV sites are generally reliable pages. However the political party in power may selectively choose which statistics are published, which studies are funded, and so on.

.EDU sites are often and mistakenly assumed to have more reliable content. In fact, .EDU sites cover the whole range of purposes that are served by .COM, .ORG, and .GOV sites. They may try to sell themselves to prospective students, offer outlets to various organizations both on campus and in the community, serve as a host to personal web sites, and publish information as required by law. Additionally, the principle of academic freedom for faculty may remove any or at least most scrutiny of their Web pages.

Web pages should provide a link, usually in the footer, to the group that sponsors or hosts the site. If the host is a serial or periodical publication (journal, magazine, newspaper), check to see
that it has an ISSN (International Standard Serial Number). Web serials that do not have ISSN numbers are probably home grown, and will probably have less authority than other publications.

4. The Dates Created and Last Modified

Every Web site should provide the dates when it was created and last updated. Check to make sure the information on the site is current.

Library Subscription Databases vs. the Web

The Internet is not a database. A database is a stable collection of records, arranged into consistent fields. The Web is dynamic, constantly changing and evolving. Sites are added, taken down, moved, updated, revised, etc. on a constant and unpredictable basis. As such, Web pages are often not the best resources for college-level research.

Many licensed library databases use the Web interface. Library and/or commercial databases can be, but are not always, available on the Web. The Web is the most common interface because it allows people to take advantage of a networked environment which delivers information directly to personal computers. The important difference between what is freely available on the Web and what is found in library subscription databases is the nature and quality of the information. Remember, when you use an Internet search engine (e.g. Yahoo, Google, or Alta Vista) you are not searching library catalogs or subscription journal databases like MSUs Expanded Academic ASAP. These managed databases contain information screened for quality by editorial boards; they are part of the traditional collection of library-licensed information resources. Thus, library resources with a web interface are reliable sources of information. Most of these library databases offer at least some advanced search features. Basic search features will include title, author, subject, and keyword. This bibliographic control means that users have better access to quality information. When you say "I got it from the web," be sure you understand the differences between freely available Web pages and quality controlled,
Citing Web Resources

If the information in a Web page is available as a print publication, it is often easier to find and cite the printed version. Print is a more stable medium than the Web. Because Web pages are moved and deleted so often, future readers of your research may not be able to find the Web version of the source at the same location where you found it. Another reason is that print page number citations are more precise than Web page title citations. There are no page numbering conventions for Web sites, so parenthetical citations have to use the title of the source. This can make it difficult for readers to find the cited passages in the original.

Standards for the proper citation of Internet sources are still evolving. For guides to citing any electronic resources, search online for "citing electronic resources" or see the Internet Public Library's page on citing electronic resources at http://www.ipl.org/div/farq/netciteFARQ.html.

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