

Evaluating Scientific Information on the World Wide Web

Authority: Is this site reliable?

- Who maintains the site and is the page owner identified? Has an individual, or institution, taken responsibility for the material presented? Is there an editorial board or another listing of the names and credentials of those responsible for preparing and reviewing the site's contents? Look for copyright statements, sponsorship by respected institutions, or editors.
- Credentials: the qualifications of the page owner (s) must be clearly stated. Look for advanced degrees in the appropriate field, or certification credentials. Scientific information found on the Web should be supported by legitimate research sources such as peer-reviewed, scholarly journal articles or proceedings from scientific/ medical meetings.
- Sponsorship: assess the reputation of the organization hosting the site. Is it an educational or research institution (.edu), commercial site (.com), non-profit organization (.org), a federal government agency (.gov) or an ISP:Internet Service Provider (.net)?
- Government (.gov) or university-run (.edu) sites are among the most reliable sources of scientifically sound information. Private, commercial, lay or non-profit organizations may have social, marketing, or political agendas that can influence the type of material they offer on the webpage and to the sites they link to.

Content and Accuracy: Does this site provide you with reputable information?

- Does the page contain information that is presented as opinion or is it based on facts and research?
- Are informative graphics and multimedia files such as video or audio clips available? These features can be useful in clarifying and explaining scientific or medical procedures or evidence, but should not substitute for solid research.
- Accuracy is based on evidence and the verification of facts, statistics and research. *Statistics, facts, and research must be verified by references.*
- Is a "content specialist" available to verify information? Look for an editor or board of editors, list of authorities or individuals with credentials in a subject or area expertise. Such groups and individuals oversee the content of the page.
- Does the page identify and outline the criteria for inclusion of information and links?
- Does a recognized professional organization link to (or reviewed) the webpage you are evaluating?
- If you have questions concerning the validity of information found on the Web, print out the pages, and bring them to your instructor or a librarian for evaluation. He or she should be able to tell you if the source of the information can be trusted.
- Spelling and grammatical errors may indicate that the content has not been carefully reviewed, and therefore the site's accuracy may be questionable.

Currency and Coverage: How current is the site's information, and does it cover the information adequately?

- Check the page for the frequency of updates. This indicates the timeliness and validity of the information. Ideally, science, health, and medical sites should be updated weekly or monthly.
- Check the information for completeness: some articles on the web are often in condensed form, or presented as a part of a larger project. Check if the article is available in print format.

Disclosure: Does the page owner state the website's purpose?

- The mission and purpose of the site and the page owner(s) should be prominently, and clearly, stated. Check the header and the footer of the web page to see if a "Who we Are" or "Mission Statement" information is listed.
- Try to distinguish bias or promotion from serious content. This is especially important because many page owners are turning to commercial support for maintaining their webpages.
- Look statements within the webpage that point out purpose, scope, limitations and sponsorship. Think, "Does the river (i.e., the webpage) run wide-- or run deep?"

E. Winch: Revised 8/03

Thanks to Marsha Ann Tate and Janet E. Alexander, whose work, *Web Wisdom: How to Evaluate and Create Information Quality on the Web*, inspired this worksheet.