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Helping Students (Better) Evaluate and Validate WWW Resources

David Graf, *Nova Southeastern University*

The evolution of the World Wide Web has spawned a radical and sometimes problematic transformation of how and where students locate and use information. Given an assignment, most students are more likely to make a visit to the Web rather than to their academic library. Unlike their library, the World Wide Web never closes. And, unlike their library, students can enjoy a cup of their favorite beverage or watch TV while surfing for information. And, for many students, surfing the Web is perceived as fun while trudging over to the library is time-consuming and oh-so-boring.

Unfortunately, many faculty and most students are ill-equipped to make the most of the Web. Unwary faculty allow students to use information found on the Web without causing them to evaluate and/or validate that information. Uninformed students "look for information with search engines and use it without having any idea of how reliable it is, or - in some cases - without even knowing who supplied the information" (Hempstead, 1999). Uncontrolled and uncorrected, such use of the Web will certainly have a deleterious effect on the quality of student scholarship.

But all is not doom and gloom. As the Web has evolved, so, too, have our strategies for using the vast array of information it contains.

Getting Started Effective use of Web information begins with effective searching strategies. Both faculty and students need common skills to lead them to the information they seek. A basic understanding of the type of information various search engines

gather, how those search engines obtain information, and the techniques for actually locating the information found by a given search engine is crucial.

We know the Web at this moment is not the same Web as of five minutes ago. (The advent of mega search engines like *MetaCrawler*, *Ask Jeeves*, and *InferenceFind* further exacerbates the issue by returning hundreds, thousands, or even millions of hits for a given topic). The dynamic nature of the Web means that faculty need to spend time using search engines, locating and evaluating pertinent information, and sharing that information with students.

The results of an actual search illustrate the importance of knowing how to search effectively. Suppose you are teaching a marketing course and want students to prepare brief papers on the history of the Ford Motor Company. You suggest that they search for "Ford Motor Company" on the Web. On the day I conducted a search for "Ford Motor Company" using the following search engines, I found the following:

- Alta Vista (38, 118 hits)

- Infoseek (15, 256 hits)

- Webcrawler (220,545 hits)

- Excite (4,158,616 hits)

Obviously this particular search could be narrowed down by selecting additional key words. The trick is knowing how search engines find the information they reveal and how to extract that information. We, as faculty, need to know how to conduct effective searches, and we need to impart this knowledge to our students. We can start by studying the url's in the box below and sharing them with students.

Links to sites providing information about search engines and searching:

- http://www.itrc.ucf.edu/lqr/

- http://www.hamline.edu/Administration/Libraries/search/comparisons.html
- http://www.mwc.edu/ernie/facadac/search-eval.html
- http://www.monash.com/spidap.html
- http://www.voicenet.com/~bertland/search.html
- http://www.zdnet.com/pccomp/features/fea1096/sub2.html
- http://www.cl.ais.net/egsmlib/crawler.html

Evaluating Web Resources As the Web evolves (currently over one million new pages are added daily), so must our use of it. One of my basic premises is that students are, for the most part, uninformed — and, therefore, unsuspecting — consumers of the Web. Helping them do a better job of evaluating information they find on the Web is the next step.

When we "evaluate" something, we seek to judge its worth, appraise it, assess it, or measure its value. The evaluation of information found on the Web must start with the Web site itself, centering on a reflective analysis of the person(s) who created the site, its accuracy and currency, and its structure and ease of navigation.

We can help our students understand the vastness and complexity of the Web by causing them to evaluate sites from a number of perspectives. For example, who is the author of this site and what credentials support his or her authority on the topic? Are there other sites which contain the same information? When was the site last updated? How much of the site is primary source material? These and other questions should cause students to think twice before hitting the "Print" button on their browser.

The url's in the box below point to several sites which help students better evaluate and validate information found on the Web.

Useful Evaluation Sites

•http://www.vuw.ac.nz/~agsmith/evaln/index.htm

•http://library.monterey.edu/faq/eval.html

•http://www.science.widener.edu/~withers/webeval.htm

•http://www.ithaca.edu/library/Training/hott.html

•http://www.uwec.edu/Admin/Library/10cs.html

•http://www.refserver.lib.vt.edu/libinst/critTHINK.html

These and dozens of other links to sites providing information

on evaluating and validating Internet resources, searching strategies,

and citing Internet sources may be found at

http://chiron.valdosta.edu/dlgraf/default.html

Validating Web Resources It is not enough to cause students to *evaluate* the information they find on the Web. They also need to *validate* that information. Validation means that we seek to verify, authenticate, or confirm the accuracy of the information. In doing so, students substantiate that what they have found is indeed useful and accurate.

With such an incredible amount of information added to the Web every day, it would be a safe bet to suggest that there are many, many websites that include inaccurate or misleading information. To promote validation, I offer two basic principles you may want to consider sharing with your students:

- Always, always question the source (evaluation).

- Always, always confirm the source with a non-Web source

(validation).

But there is one more, final step toward helping students better evaluate - and use -Web information.

Web-Savvy Assignments Many of us have not yet reached a point where our assignments cause students to look critically at the information found on the Web. Merely replying "Yes," to the question "Can we use the Web to do this assignment?" does a disservice to students. A possible solution is to ensure that students are given web-savvy assignments.

A web-savvy assignment is one which guides students by specifying the extent to which the Web can be used for the assignment and causes them to evaluate and validate the information they find on the Web. In creating web-savvy assignments, faculty are encouraged to:

• ensure that the students know exactly how the Web may be used in completing the assignment;

• identify any specific web sites you want students to use or avoid;

• include language which specifically requires students to evaluate and validate Web-based information;

• clearly spell out the deliverables required of the assignment.

Several instructors I know promote a very critical approach to the use of Web information. If students choose to use information from a website when completing an assignment, they must print out the appropriate pages from the website and include them with the final assignment. Additionally, students are required to identify secondary source material and confirm the accuracy of the information from a print source. Finally, students are required to include the url's of all sources they visted in researching the assignment. These and other strategies do much to further student understanding of the limitations of the Web.

To see some examples of web-savvy assignments, consider using *Lycos* to search for the phrase "web assignments" or "internet

assignments" (be sure to include the quotation marks!).

Regrettably, students don't much care for the "extra" work required to evalate and validate Web information. If, however, we are to fulfill our role as teachers, facilitators, and role models, we need to show our students a path allowing them to become informed consumers of the Web.

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