Surfing for Scholarship: 
Promoting More Effective Student Research

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What the Web adds to the shortcuts made possible by word processing is to make research look too easy. You toss a query to the machine, wait a few minutes, and suddenly a lot of possible sources of information appear on your screen. Instead of books that you have to check out of the library, read carefully, understand, synthesize, and then tactfully excerpt, these sources are quips, blips, pictures, and short summaries that may be downloaded magically to the dorm-room computer screen. Fabulous! How simple! The only problem is that a paper consisting of summaries of summaries is bound to be fragmented and superficial, and to demonstrate more of a random montage than an ability to sustain an argument through 10 to 15 double-spaced pages.

—David Rothenberg, New Jersey Institute of Technology

I would believe through my own experience that it is no more convenient to plagiarize via the Internet than the Xerox machine in a library . . . I personally feel it is most likely the lack of skills a student possesses rather than the existence of the Internet that provides the opportunity for lesser quality work.

—L. St. Aubin, University of Houston-Downtown


The expanding array of information resources and technologies, and in particular the development of the World Wide Web, has made it possible to gain access to more information than ever before. Experiences at campuses across the country suggest that students are actively turning to online resources as a means of supporting research papers and projects. Recent studies from individual institutions such as George Washington and Duke along with UCLA’s annual "American Freshman" Survey, which surveys first-year students at some 1600 colleges and universities, report that around 85% of students regularly use the Internet for research or homework.

What is the impact of access to online information on student research? Consider the following:

• Unique collections of high-quality information: Web sites such as The Valley of the Shadow: Two Communities during the American Civil War (University of Virginia) and The American Memory Project (The Library of Congress) bring together a wealth of unique primary and
secondary resources—resources that have been collected and mounted by scholars and that include specialized or rare items not available at every campus library.

**Missing and mutating citations:** Researchers at Cornell University undertook a detailed study of Web sites included in undergraduate students’ bibliographies and found that 16% of the items cited could no longer be found within six months following the paper’s submission; 53% of cited documents could not be found within four years of the paper’s submission. Some documents could not be found because they were either incorrectly cited or contained URLs with typos.

- **Opportunities for interaction:** Students at inner city Washington High School in Kansas City, Kansas, collaborate with their larger community via the Web. According to teacher Dennis Lawrence, "The Kansas Collaborative Research Network provides the creative framework for the students and community members to investigate, and share research on their community. Students who engage in authentic collaborative research about their communities cannot be disconnected from the text they are studying and creating. They have switched from the role of passive researcher of academic questions to the role of active storyteller of their community, and they are celebrated as such within the classroom, community and families." (See [http://www.arthes.com/community/](http://www.arthes.com/community/) and [http://kancrn.org/](http://kancrn.org/))

- **Problems with evaluation:** A study involving students at Shelton State Community College found that many students considered most sources located by a search engine to be appropriate. Although students considered the presence of an author to be the strongest indicator of a useful site, most gave "no thought to the qualifications of any particular Web author." Most of the students interviewed for the study believed that their evaluation of sites was in line with their instructors’ expectations (their instructors did not agree).

- **Cut & paste plagiarism:** A 1999 study by a Duke University researcher found that 54% of high school students claimed to have plagiarized content from the Internet. In a similar study involving college students, 10% of the student respondents said they had plagiarized portions of their papers from the Internet and 5% "turned in papers that were obtained entirely or almost entirely from the Web."

- **Rejecting the Web:** Anecdotal evidence refers to many instructors who heavily police Web sources or ban Internet sources from research papers altogether. David Alan Black, an associate professor at Seton Hall, uses his Web page as the forum for his views: "For what it’s worth, it is currently my policy to forbid the use of Web sources in any paper I assign, unless the assignment is accompanied by a completed form, designed by me for this purpose, identifying and describing the site used and justifying both the use of the site and the use of the Web, in the first place, for the assignment." (See
The problems and opportunities posed by student use of the Web come as no surprise to many instructors. Antha Cotten-Sprekelmeyer, Assistant Director of the Humanities and Western Civilization Program at the University of Kansas plays a key role training graduate teaching assistants and has seen first hand the challenges GTAs face when evaluating student research papers that include Web sites.

"Unfortunately, most of the impact of the Web has been negative in the form of undocumented use of sources or outright plagiarism of entire works. It is difficult to tell if this is due to students’ lack of understanding and skill in proper documentation methods, or if it is just an easy way out."

We asked Cotten-Sprekelmeyer to describe ways she has found to help facilitate students’ effective use of print and online information sources and Web materials.

"So far, the only effective recourse we’ve found is to emphasize—early in the semester—an intolerance of incorrect use. This means repeatedly stipulating documentation rules and consequences of plagiarism on the course syllabus, assignment sheets, and in class. We’re providing support for this to our teaching staff by including information on detecting and discouraging plagiarism in our writing instruction manual. Also, in our "Student Writing Guide" we have a long section on "citing sources" and generally we are encouraging more in-class writing—even in our large lectures. The results of this last initiative should be interesting."

Jason Hardgrave, a doctoral candidate in history and instructor for a variety of undergraduate-level courses said that he has been impressed with the variety of useful Internet-based sources available in his area, and uses the Web in teaching and his own research. Hardgrave incorporates Web resources into his classes and expects that "I will increasingly do so in the future." The biggest problem that he encounters is his students’ difficulty in "differentiating between fact and fiction... they don’t know how to verify information they find."

Hardgrave said he assigns multistage research projects that require students to submit outlines, annotated bibliographies, and rough drafts of their papers as a means of battling plagiarism. He has also developed his own checklist for evaluating Web sites, modified from several existing online checklists, that his students complete if submitting Web-based information in their papers. "I use an interactive workshop-like scenario where I hand out the checklist during class and then we look at some Web sites together, using [the checklist] to discuss strengths and weaknesses." Following the class session, he may give brief assignments in which students find sites on their topic and use the checklist to evaluate them, and/or use the checklist in support of larger
research projects. He often requires that students fact-check information from the sites they’ve found and "tell me who the author [of a site] is and why they would be credible."

**Defining and Seeking Sources**

Among the greatest challenges confronting instructors who try to promote effective use of the Web is trying to define what a Web site is. After all, the Web is a vehicle for delivery of previously published content as well as a robust self-publishing tool. A query of a Web search engine may result in links to a variety of sources common to research paper bibliographies—journal and magazine articles, newspaper editorials, congressional hearings, and government agency reports—as well as a barrage of poorly-researched, unattributed sites that were created on the fly and abandoned just as quickly.

To add to the complexity, academic libraries now regularly offer a variety of reference tools, scholarly indexes, catalogs, newspaper databases, and electronic book collections via the Web. To a student who is a novice researcher, these resources may look no different from any other site they find using a search engine, and all may appear to be equally credible. Barbara Fister, Dean of Libraries at Gustavus Adolphus College, emphasizes the bewildering array of choices students have when undertaking a research project: "While a basic mastery of card catalogs, print indexes, and citation patterns once gave students entree into the world of scholarly communication, now students must choose among and master a wide variety of databases, search engines, and electronic collections . . . simply deciding which approaches will be most useful can be a difficult problem for a novice researcher" (1998).

What is to be done to reduce all this confusion? Kari McBride and Ruth Dickstein (1998) argue that "the first step . . . is to teach students how to find information from all scholarly sources, whether print or online. The second step is to teach students how to read that material critically, even suspiciously." Davis and Cohen (2001) support this approach, but argue that there is also a need for librarians and others to create and maintain "scholarly portals for authoritative Web sites with a commitment to long term access," and for encouraging instructors to become more prescriptive when discussing with students "the type of literature that they would like to see consulted" in their research papers.

**Plagiarism or Fraud?**

We are both often asked whether we believe students’ increased use of the Web relates to the perceived increase in cases of plagiarism. The uncredited use of source material is not a new phenomenon among students; yet the Web is often
demonized as the chief culprit. Ironically, one of the most recent well-known cases of plagiarism, at the University of Virginia, had nothing to do with Internet, although the press would make us believe it did. In fact, the students who were caught actually copied papers from each other. The professor, Lou Bloomfield, created software to detect repetition and found 122 student papers contained shared text. According to Bloomfield, however, the problem is not as rampant as the media frenzy suggested: "We’re looking at 1,800 students over five semesters, and half of the 122 probably copied off of the other half, so I think we could be proud of the 97 percent that didn’t cheat."

It is true, however, that the Web’s fluid nature has placed the creation of a pastiche of multiple and unnamed sources, or the purchase of a prefabricated paper, just a keystroke away.

Fortunately, the same strategies instructors have employed to help students understand the research process, such as integrating text from print sources and using proper citation, can be used in the prevention of Web-related plagiarism. David Rothenberg, author of *How the Web Destroys the Quality of Student Research Papers*, reflects on his role in facilitating this process:

"I need to teach students how to read, to take time with language and ideas, to work through arguments, to synthesize disparate sources to come up with original thought. I need to help my students understand how to assess sources to determine their credibility, as well as to trust their own ideas more than snippets of thought that materialize on a screen."

Rebecca Moore Howard (1999) asserts that the term plagiarism deserves some serious interrogation. Understanding the multiple ways that students appropriate and use information is key to then teaching students a research, critical reading, and writing process. For example, what many faculty consider academic anathema—buying or selling essays and research papers—should be called what it is: fraud, not plagiarism. Students who are desperate in their eleventh-hour attempt to stitch a paper together will copy and paste sections from Internet sites. Often this inserted text is not designated with required quotation marks, nor cited in the text or in a references section. Is this because students are pressed for time? Don’t know the documentation rules? Don’t know why we cite sources? The reality is that there are many reasons why students may fail to meet our expectations in terms of documentation; therefore, instructors are challenged to determine whether they are dealing with a case of intentional academic dishonesty or a lack of experience and practice with academic research methods and writing.

Let’s put this into perspective: your current students may have spent more hours online in their short lives than most faculty. The Web environment is a familiar extension of their intellectual and social lives; most of these users see no boundary between the real time community
of friends and family and the virtual communities they encounter. For this reason, it may seem plausible to students that this huge storehouse of Web resources is created for and used extensively by any and all to share, borrow, save, or purchase.

"Increasingly N-Geners don’t see technology at all. They see the people, information, games, applications, services, friends, and protagonists at the other end . . . In this sense the technology is completely transparent to them."

—Don Tapscott, Growing Up Digital

Some Suggested Strategies

As a librarian and a writing center director, we have both been on the receiving end of many questions and concerns around the issues of Internet and online research, finding and evaluating reliable Web sources, and plagiarism. Whether the desire is for students to find better resources or to use those resources effectively and honestly, we believe the solution involves instructors, librarians, and writing staff working together. Listed below are some suggested strategies for accomplishing this task.

1. Critical Reading is Critical. The academic research process is based on critical reading, a kind of reading that faculty and teaching staff can model and monitor with guided questions, reading logs, and exercises for students. Students must engage more deeply with texts to discover if and how they relate to the research process. When students are working with online information, they scan pages more quickly, tend to take fewer notes and document fewer sources as they surf. A number of educators have developed evaluative checklists and other tools that may be used to help students become more discerning readers of Web sites. Contact the librarians and writing center staff on your campus to learn about the resources they have and the support they can offer.

   KU Libraries: Evaluating Your Resources
   http://www2.lib.ukans.edu/watsonref/evaluate.htm
   KU Writing Center: Writer’s Roost Web Resources
   http://www.ku.edu/~writing/resources/index.html

2. Provide opportunities for student researchers. Students need to have more opportunities for engaging in research-based work and writing and documenting their experiences. Too often, students have only sporadic experience with research assignments and it is not unheard of to encounter students at library reference desks who confess that "I’m a senior, but I’ve never had to use the library before." If your school is planning to meet the stated goal of matriculating students who are able to "research, organize, evaluate, and apply new information, and develop a spirit of critical inquiry and intellectual integrity," then students must have more experiences with the research and writing process. Again, reach out to your librarians and writing center staff—they can help facilitate collaborations with academic departments.
3. **Talk in terms of process, not just product.** Studies have shown that students who engage in a process—starting early, developing a timeline and research strategy, building an annotated bibliography, getting feedback from peer tutors or instructors, and writing drafts—will be less likely to fall into the trap of eleventh-hour copy and paste or digital plagiarism. More importantly, instructors have found that students who have been taught to approach writing in this way are more likely to produce a well-organized, comprehensively and critically researched paper.

The KU Writing Center Online Writing Guide: The Writing Process
http://www.ku.edu/~writing/students/guides.html#4
The KU Writing Center Online Writing Guide: Writing Your Research
http://www.ku.edu/~writing/students/guides.html#5
Library resources and sample assignments:
http://www2.lib.ukans.edu/~instruction/assignments.htm

4. **Provide more guidance in defining appropriate (and inappropriate) sources of information.** Frustrated by poor-quality Web sites or student reluctance to use any other type of resource, instructors may feel compelled to disallow or limit the number of Web-based sources students may use in a paper. Because of the range of sources available via a Web interface, this guideline is not sufficiently clear. One reference librarian reported an instance in which a student was reluctant to select an article published in the *Journal of American History* because the article was offered as part of the JSTOR database, an online database that provides full-text access to an archive of scholarly journals. The student’s rationale for rejecting the article was that he thought it would not be an acceptable source because it was "online." It is also important to remind ourselves that some students arrive on campus with little experience using anything other than a Web search engine to find information, and no strong familiarity with more text-based methods of academic research. Although students may need particular help in becoming more judicious users of Web sites, their university experience should also introduce them to the variety of printed and electronic library resources available to support research projects and papers. Library staff are happy to offer course-related instruction sessions in which distinctions between online catalogs, academic databases, and pertinent Web sites are delineated and discussed.

5. **Show what you know.** Be explicit about your expectations and demonstrate to students that you are Web savvy. We both know of several instructors around the country, in various disciplines, who introduce the Web-based paper mills to classes as a way for students to
learn how to analyze sources. Critiquing these papers can be an eye-opening lesson for students. Interestingly, Web-based technology is both blamed for plagiarism and used to aid in its detection. Numerous Internet sites and software packages are now designed to aid in finding appropriated texts. The KU Writing Center Web site includes pages for instructors who are wrestling with the ethics of students’ academic integrity and Internet research. The materials on plagiarism gathered there are designed to help you take a proactive approach, to develop assignments and teach research methods that effectively limit the potential for plagiarism. In addition, you can tour paper mill sites and sample plagiarism detection software.

Eliminating Plagiarism:  
http://www.ku.edu/~writing/instructors/classes.html

Electronic Plagiarism Seminar:  
http://www.lemoyne.edu/library/plagiarism.htm

The Plagiarism Resource Center at the University of Virginia:  
http://plagiarism.phys.virginia.edu

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