



Faculty Forum

From the Faculty Center for Excellence in Teaching and Learning

WESTERN CAROLINA UNIVERSITY

CULLOWHEE, NORTH CAROLINA

Vol. 14, No. 2

October 1, 2001

Help Students "Search Smart" on the Internet

"Oh, that's okay," said the student politely, backing away from the Reference Desk, "I'll just get it off the Web." This, after five minutes of watching two reference librarians check several sources for the information. "Come back if you don't find it," I responded, brightly. Our students generally have the impression that, with the Internet and computers, research is now easy, and maybe this student was embarrassed for us because we couldn't answer the question immediately. Like the student who wanted current literacy statistics from a county in Ireland, "Just tell me where I can find the 2000 Census on my computer," he suggested helpfully.

Faculty need to realize that student research skills have become even more simplistic with the availability of the Internet and the computerization of library materials. It is not enough to make challenging research assignments and assume that students know how to "search smart." Students will find help at the Reference Desk, of course; that's our job and we love doing it. But faculty can anticipate research problems and give students some basic tips about how to research using computers. The Teaching Tip that follows is a modest suggestion about how to start. Faculty should keep in mind that students need more help now that the Internet has become their main research tool. If faculty and library staff work together, keeping track of problematic student research habits, we can turn the computer revolution to great educational benefit rather than permitting it to simply add a new educational problem.

Reference librarians *love* the Web, but when students routinely come to the desk after "searching the Web for three hours," we know there's a problem. Web searching has brought about the myth of the "Big White Box," as it's known in library-land. The "BWB" is a search screen with one box in which to type a question that students expect will be researched in the entire WWW, in all journals, and perhaps even in all books—a meta-mega search engine. Right now the Big White Box doesn't exist, but many Web searchers don't know that. There is the belief that any search engine IS the Big White Box. People are dazzled by the size of the Web but while search engines do sort through millions of pages of documents, none searches more than about 20% of the WWW. As much information as that amounts to, it is pretty small in the total world of knowledge—and microscopic in the world of *significant* knowledge. All those personal Web pages of hot cars, cute dogs and sweet babies allow us to share our lives, but they won't help Jane Student with her academic research paper. The portion of the Web that librarians try to steer researchers to is a private area, sometimes called the **deep Web**, accessible through Hunter Library's Web page. Here you find the library's databases with citations, articles, and facts from sources that are consistently more reliable than those found on the Web at large. Even here, search results are only as good as the search, and we see some doozies.

One search string I recently found abandoned on a computer read: "coach-athlete compatibility and thlet's (sic) perception of coaching behaviors." I guessed that this student had attempted what's known as a "natural language search," where a person types an entire question into the search box. The natural language search is problematic because databases and search engines seldom support it, but searchers assume the natural language search as the default and feel

defeated when it fails. As it turned out, the words were an article title that comes up easily when "athlete's" is spelled correctly. The Big White Box will automatically cope with spelling errors but, today, spelling counts and that is **Tip #1**. I found this student's article by using "coach and athlete and compatibility" as a new search string. Using "AND" to string a series of keywords together (**TIP #2**) is essential to searching the Web and databases (unless you use AltaVista exclusively). Librarians demonstrate this technique to hundreds of classes each year, but we don't reach all students, and even the ones we reach obviously need the lesson reinforced. If faculty will remind students of this and other simple strategies as they make their research paper assignments, the knowledge will be reinforced and everyone will have fewer research headaches.

When I'm invited to teach classes, usually I play it safe and use "canned" searches in order to demonstrate specific points efficiently. But in a recent class I threw myself to the wolves and asked students to tell me their topics. Choosing one, I selected the best database available but initially had difficulty getting relevant hits. I made several attempts using different word combinations (**TIP #3**), but my result lists showed that I was off base. After 3 or 4 minutes and 5 or 6 attempts, just as students were getting impatient, my results were dead-on and I did my touchdown dance. What blew me away was a student who, after my 4th try, stopped me by saying, "Wait a minute, you keep getting 600 hits, but you only look at one or two pages of results. You could be missing something!" My reply was "I scan for relevance (**TIP #4**). If I don't see a relevant citation in a couple of pages, I move on (**TIP #5**) and work on my terminology."

Generally, students are not effective or efficient researchers—they often grab the first citation in the result list (relevant or not) OR will plug along, wading through hundreds of citations because they might miss something. It is imperative that faculty understand these problems and help us fix them. If faculty simply make assignments and wait for the results rather than monitoring the research process, they will not know what the students really need to learn. Of course, faculty themselves need to have sophisticated and up-to-date research skills. They are leading students with lots of surfing experience but few effective research skills, little basic knowledge, and varying amounts of confidence. Now is the time for students to practice finding and selecting information intelligently, not after they graduate and are on the job. Without information competencies, WCU students graduate without the ability to use information technologies intelligently in an information-saturated world. Helping students develop the critical thinking skills needed to find and recognize appropriate information is initially the business of the faculty, with librarians gladly assisting.

Some call information literacy the literacy of the 21st century. Finding, evaluating and synthesizing information are critical thinking skills necessary for employment, life-long-learning, professional development, and empowered citizenship and consumerism. If faculty and the library staff work together, keeping each aware of the challenges they present students and the problems the students encounter, we can deliver more effective learning at WCU.

Betsy Whitley, Hunter Library

(For more on a similar vein, see Elizabeth Weise's *USA Today* column, titled "One Click Starts the Avalanche," at <http://www.usatoday.com/life/cyber/ccarch/cceli021.htm>.)

The opinions printed here belong solely to the authors and do not necessarily represent the opinions of the editorial staff or of the Faculty Center. If you would like to respond, e-mail Nienhuis by the 8th of the month.