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Not All Sources Are Created Equal: Student Research, Source Equivalence, and the Net

Patrick Hall

ABSTRACT. With the emergence of the browser searchable Internet in the early 1990s, accessing the World Wide Web has become commonplace. In regards to its impact on student research, current undergraduates have become savvy searchers when it comes to accessing and integrating Internet documents into their research papers. However, this ease of use has come at a price. The overall quality of research being submitted by our students has suffered. Many incoming undergraduates don't make the distinction between documents located via a typical Internet search engine and full-text information generated from academic proprietary databases housed on the library's home page. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <getinfo@haworthpressinc.com> Website: <<http://www.HaworthPress.com>> © 2002 by The Haworth Press, Inc. All rights reserved.]*

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INTRODUCTION

Several years ago while working the evening reference desk, a student came into our information commons to conduct some research. As

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was my usual custom, I would periodically move around the computer area asking each student if they were finding what they needed. When I approached this particular individual, he indicated to me that he was doing fine, and so I went about my duties. However, about thirty minutes later, this student, a criminal justice major, came to the reference desk and acknowledged that he could not find sources pertinent to his assignment. He was searching for materials dealing with the use of psychotropic drugs in controlling violent behavior in inmate populations and their effects on recidivism rates. In the course of conducting my reference interview, I asked which sources he had been searching. He had spent the last half hour searching Alta Vista, Lycos, DogPile, Yahoo, and an assortment of Internet search engines and online directories. To be perfectly honest, he did locate a few government publications by the Justice Department relating to the use of psychotropics, as well as a menagerie of Internet documents either about prison inmates' behavior or exclusively on various forms of drug therapy. But he still didn't have the peer-reviewed research that his professor wanted him to employ in developing his final term project.

At that point I inquired whether he had tried PsycINFO, a major online reference tool providing access to scholarly research in the field of psychology and psychiatry. Through this he could generate a host of articles, books, and other research genre pertinent to his topic. The student acknowledged that he hadn't used PsycINFO and was not aware of its existence. I also suggested other online sources such as Criminal Justice Abstracts, the Criminal Justice Periodical Index, and Sociological Abstracts that could generate the scholarly peer-reviewed research he was seeking to fulfill the necessary requirements that most teaching faculty insist upon. To bring closure to this incident, I returned to the workstation with the student and within fifteen minutes we found several empirical articles and case studies dealing with psychotropics and inmates. Although locating these materials was hardly a difficult task, for this student and others like him, the discovery that you can find pertinent information outside of Yahoo, Lycos, or Google was an information epiphany.

Since the emergence of the browser searchable Internet in the early 1990s which freed most searchers from the task of searching and obtaining articles via older FTP protocols, Gopher Clients, and the other limits of the 3260 character-based search environment, the Internet has ushered in a research revolution. However, this ease of accessing information from the Net has come at a price. This price has become especially noticeable in the quality of research that is now submitted by the

typical undergraduate, and has become a source of angst among librarians and teaching faculty.¹

Students have become extremely good at locating information on the Internet. Through their grade school and high school years, this new Digital-Generation has indeed employed a plethora of sources to answer any question and to conduct research for papers solely by using Yahoo, Alta Vista, Lycos or Google. However, what were once good sources for your average high school assignments are no longer appropriate, or more accurately, authoritative enough for college-level term projects. Although university libraries spend hundreds of thousands of dollars each year for subscriptions to discipline-specific proprietary databases, the average incoming freshmen (and even some graduate students) still won't use them. In many cases, students are not even aware of their existence despite our well-documented use of library instruction.² Quite simply, in the minds and search habits of many incoming undergraduates, Yahoo is equal to using the Historical Abstracts. As you know, the Historical Abstract Databases is a highly scholarly source providing citations and full-text articles from peer-reviewed sources. Historical Abstracts accurately reflects the academic publishing cycle in the area of history.

For librarians assisting students, the problem of source equivalence has become a major detriment to the quality of research now being performed. Many students don't make the distinction between articles or documents found via a general Internet search and sources located through proprietary, refereed, "paid-for" databases that are now housed on a typical university library's home page. Sadly, many undergraduates have arrived at the mistaken notion that all sources are created equal, and it has fallen to us as reference librarians to help students choose the most appropriate, pertinent, and authoritative sources for their term projects, especially when their assignments call for empirical scholarly research.

Of course, our efforts with bibliographic instruction and other forms of information literacy have helped make students aware of these differences. But research has shown, and anecdotal experiences have confirmed, that students don't always make the best choices when they generate bibliographies and other documentation to compile their term projects.³ "Not all sources are created equal" is indeed the mantra that librarians and other research pedagogues must constantly chant, if significant progress is to be made in improving the research IQs of students.

THE NEW MYTHS OF RESEARCH

The Internet is a powerful tool for research and provides virtually limitless access to information. As alluded to earlier, the downside of this new information environment is that students don't always choose the best sources for their research. In many cases, they seldom make the critical distinction between documentations located via general Internet search engines, and academic peer review research located via the hundreds of proprietary academic resources housed on the university library Web page. Even when undergraduates begin to make such distinctions they still fall prey to the thinking that all pertinent research is now full-text. Despite the advent of full-text journal aggregators, such as Kluwer, Academic Ideal, ScienceDirect, and Catchword, that provide thousands of full-text journal articles in a number of academic fields, along with the availability of such proprietary vendors as ProQuest-Direct, EbscoHost, and FirstSearch, who also provide full-text information, these files do not encompass the quantity of research that is available or generated by the academic disciplines.

As cited in several studies dealing with full-text documentation,⁴ less than 30% of the academic publishing cycle, the information generated by the colleges, universities, and research institutions, is available in a full-text format. And of this 30%, the full-text availability is skewed in favor of the hard sciences as opposed to the social sciences and humanities, leaving an even greater gap in full-text documentation that students may see as they browse. Once again, since students have been used to uncritically grabbing full-text documents off the Net via Yahoo or Lycos, they also will employ a ProQuest or Ebscohost Elite search to quickly accumulate a host of articles without considering whether they are getting the best information possible.

Librarians know that a data file like ProQuest Direct provides full-text access to journals and magazines in various academic disciplines, but does so only selectively. For example, if a student is doing a paper on the notion of class in the writings of Zora Neal Hurston, she might be able to glean a few documents from the Web via a standard Internet search or find several full-text articles about Hurston on ProQuest or the Academic Index. However, what the student might not know is that using a literature database, such as the MLA Bibliography, is more appropriate for the task at hand. The MLA Bibliography is a highly academic database for the scholarship of literature, linguistics, folklore, and the general language arts. It contains thousands of citations to studies appearing in articles, parts of books, and other monographic works that

aren't full text and must be located in books and periodicals housed in the library.

However, many students, after doing a cursory search on a given subject might generate a number of full-text articles thinking they have a good representative sample of the literature on their topic. In reality, they may be only scratching the surface, or worse yet, be missing an entire body of research on any given subject. They mistakenly believe it's all full text on the Net, and consequently, the quality of their research and their exposure to the full range of argumentation and academic discourse available on a subject is truncated. Tragically, they are often never aware of their lack of exposure to the world of ideas on any given subject. This is one of the real tragedies of the new information environment, which has inadvertently socialized students into thinking that all sources are created equal, when in fact source equivalence is the tragic myth that undercuts their growth as thorough academic researchers. As cited in one study dealing with source equivalence and student research on the Internet, "Though many of today's students are computer-savvy, they lack the critical skills needed to distinguish between accurate and inaccurate information on the Internet."⁵

Compounding this full-text myth is the notion that research is easy. It is a mistake to assume that the process of gathering, interpreting, collating, abstracting ideas, decisions concerning source authority, and all the critical discernment that goes into producing a piece of scholarly discourse can somehow be abrogated by supposed ease of securing documents directly off the net or even via a proprietary academic database. Although the computer has made it easier to generate resources, it cannot help with sorting through the most academically valid articles to use, or whether a batch of full-text articles really reflect the academic publishing and scholarly discourse on their subject. In most cases, because generating actual citations to journal articles or full-text information is easier, there is a tendency in the uninitiated searcher to grab the first couple of articles or documents they come across.

To use the Zora Neal Hurston example, a student may find a dozen full-text articles employing a multidisciplinary proprietary database such as ProQuest Direct. He will probably feel, rightly or wrongly, that he has conducted a thorough search. But as research pedagogues and any good reference librarian will know, ProQuest Direct and similar databases are multidisciplinary and only provide a sampling of what's out there on any given scholarly topic. MLA Bibliography, the premiere index for scholarship in the language arts and related areas, will provide the student with a portal of information germane to African American

Literature and Women literary artists. The specificity of information on the MLA dwarfs what may be located via Yahoo or a multidisciplinary proprietary database. The scholarly discourse or publishing cycle is well represented on scholarly, highly academic databases such as MLA Bibliography, thus insuring a more thorough literature search and ultimately not only enhancing the students' immediate research paper, but aiding them in their growth as scholars.

FOOTNOTE ON THE "OTHER" DIGITAL DIVIDE

Over the past five years, the literature is replete with concerns about the growing digital divide between the information "haves" and the information "have-nots."⁶ Individuals from the lower socioeconomic classes traditionally haven't had the same opportunities to access online information as those from more economically advantaged backgrounds. Recently, because of various government initiatives to provide Internet access to the poor, and the ongoing work of educators in our nations' public schools, this "access gap" is closing.⁷ Although we are now providing better access to online services via the Internet to all socioeconomic classes, the types and overall quality of material that students are searching points to what has been coined in the literature as a "second digital divide." This digital divide deals with computer use by students, the poor, and others, and whether they are making the most of their on-line time.

In short, there is a great difference between accessing the Internet for materials on the development of democracy after the Peloponnesian Wars and surfing Puff Daddy's Web page. Although students, both rich and poor, make use of computer technology on a daily basis, not all of these uses have equivalent educational benefits. This difference in the ways computers are used by students at home and in school, for better or worse (an emphasis on the latter), could be defined as the second digital divide. As alluded to earlier, many students are adept at manipulating the software and employing the Internet for hundreds of tasks, but too often at the expense of real learning or academic scholarship.

THE LIBRARIAN AS MARKETER: A TENTATIVE SOLUTION

Although no easy solutions can be offered, there are a variety of strategies that may be employed to address the problem of source

equivalence and today's undergraduate. Many of these are currently pedagogic fixtures of most current literature dealing with student research and the Internet.⁸ They include our efforts to teach information literacy skills to students, especially with an emphasis upon evaluating Web sites. When undergraduates need to use the Internet, they must be cognizant of the importance of information evaluation. Through a Web site evaluation, students should automatically be concerned with authorship, content, authoritativeness, point of view, and inherit biases of documents they glean. Teaching students sound searching strategies, directing them to the best Web sites, creating interactive Web pathfinders to the academic proprietary databases, as well as directing them to more pre-evaluated Internet search engines such as Infomine <<http://infomine.ucr.edu>> and the Librarians' Index to the Internet <<http://lii.org>> are all good instructional strategies to help focus student research to the most pertinent sources. However, despite all of these efforts to promote information literacy, librarians and other research pedagogues need to do a better job as marketers.

As stated earlier, university libraries spend hundreds of thousands of dollars each year for online subscriptions to a host of academic and peer reviewed databases. From PsycINFO to Web of Science, from the growing list of multidisciplinary proprietary database like Ebscohost, ProQuest Direct, and FirstSearch, to the ever-expanding list of full-text journal aggregators like Kluwer, ScienceDirect, Catchword, and Academic Ideal, the amount of academic research now available to the student has made the "potential" of accessing the most authoritative sources in the academic publishing cycle a clear reality. Yet despite the availability of these electronic resources, plus the time and energy electronic resource librarians and others spend in making these source just a click away on our university library home pages, many students do not use them. Worse yet, many students aren't even aware of their existence and will first gravitate to Yahoo or Google to begin their research.

In short, we as information professionals need to begin engaging in some basic "freshmen 101 marketing" in order to make students and teaching faculty more aware of what libraries have in the way of academic peer review databases and other sources. It has become far too common to just add new electronic resources to the library home page and hope that students will use them. Even with librarians' efforts in regards to bibliographic instruction and information literacy, students will still leave library instructional sessions with only a snapshot of what is housed on the library's home page. Even in the well-documented efforts toward course-integrated instruction where databases

germane to specific academic disciplines are highlighted, students may use them only once or twice. However, far too many of the library's research clientele will not use these sources on a consistent basis and will meander back to their "Yahooism" rather quickly.

A partial solution to this dilemma is that libraries need to market, promote, and advertise what is available on the libraries' home pages to students and the greater university community. Although these terms are often used synonymously, they refer to quite distinct activities. Libraries need activities that encourage students to use the most authoritative, pertinent, relevant, and academically congruent information available to them. By definition, marketing involves a wide range of activities to make sure that we as librarians continue to meet the needs of the customer. Libraries have sometimes tried to implement this through user surveys and other passive measures to delineate what will serve student researchers best. But these attempts are simply not aggressive enough. Owing to the nature of librarianship or the people who become librarians, we are simply poor marketers, especially considering the valuable product (hundred of academic databases) for which we are guardians.

Librarians must become much more aggressive advertisers. If advertising is bringing a product (or service) to the attention of potential customers (i.e., students), what is needed are interesting brochures, campus commercials or ad campaigns, e-mail messages, use of real-time messaging displays on the general university home page, and personal contacts. Whether this means going out to the dorms in the evening to do a special workshop advertising the existence of a particular database, or setting up a booth or kiosk in the student union building, all of these avenues should be explored in order to place front and center in students' minds that the library has information that can assist them in their research.

Just as important to advertising are promotional activities. Promotion keeps the product (the library databases) in the minds of the customers. These can be a series of ongoing and repetitive activities that constantly point out to students that they need to use the MLA Bibliography to conduct valid language arts research. Librarians, for lack of a better concept, must become effective propagandists. We must constantly repeat to students and faculty through e-mail, campus dorm visits, the student union building, visiting, and speaking engagements at student activities that we have these materials available for them to use.

We can place as many new online academic databases as we wish on our libraries' home pages but if nobody knows they are there, or they are not "constantly" reminded of these research services, then the peda-

gologic goal of having students employ the very best sources in their research becomes truncated. Taking a cue from private industry, the reason people know about Microsoft, Yahoo, or KFC Chicken Fingers is because they constantly market, advertise, and promote their products. We as librarians should do no less!

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NOTES

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