Students Rely on the Web for Hard-to-Find Information

What research strategies and resources do students use to find scarce information?

By **Sanda Erdelez**

Many students rely extensively on the free information available on the Web to conduct research for their school projects. This strategy may be appropriate when information on a topic is plentiful, but does it also work well when information is scarce? In this study Nicole Ware and I assigned a group of students a task to research a topic for which information is typically difficult to find. By analyzing students' information-seeking processes, we hoped to discover what types of information resources and tools they rely on and what strategies they use when faced with scarcity of information.

The Context of the Study

The participants in the study were 25 graduate students in library and information science, enrolled in a business information resources course. All the students were skilled both in Web searching and in basic commercial online database searching. They had free access to the Internet and to the print and electronic library collections at a major research university. Students were also given free passwords for accessing Dialog and Lexis/Nexis, two major providers of commercial online databases.

We asked students to put themselves in the role of a competitive intelligence professional whose task is to find information about a small Internet start-up company in the telecommunications industry. The type of information needed ranged from general company information to information about patents, business alliances, and venture capital funding. Students were instructed to limit their search strategies to finding sources that provided the necessary information, rather than collecting any original data themselves, such as by talking with other people. The products of their research were a competitor report and a separate narrative explanation of their research steps, including the resources that they used to complete the assignment.

The Findings

The study findings revealed that students relied almost exclusively on electronic resources to accomplish the assigned task. The most often used were free Web-based resources, and far behind those were commercial online databases. CD-ROM and print resources were consulted on a very few occasions. Students also reported that they had more success finding information on the Web than in the commercial online databases.

The most successful sources of information were the Web sites of

the companies the students were researching. These sites accounted for almost 50 percent of all instances of the students' Web use. Several students commented that the company Web site was "the greatest resource" of competitive intelligence for their assignment. The other types of Web sources students relied on included search engines and specialized business and government Web sites.

Comments

In analyzing students' information-seeking strategies, we first identified the order in which they used various types of resources. All but two students started their search in some type of Web-based resource. The majority started their search from a company Web site, while several turned first to search engines. Interestingly, none of the students in the study selected a commercial online database as a starting point for the research. We also looked for the themes that may describe students'

information-seeking strategies and identified three main approaches:
1. exploration as the initial stage in students search,
2. verification of currency and accuracy of information, and
3. haphazard, nonlinear movement from one source of information to another.

In an attempt to "get acquainted" with the search topic, students first explored the Web. After collecting the baseline information from the Web, the students turned to the online commercial databases, which they considered to be "more trustworthy" sources, to verify that information. However, they either failed to find any useful information, or they found information that was repetitive and outdated. Several students commented that the information initially found on the Web would have been sufficient to complete the assignment.

Overall, the students followed a general strategy that started with an

exploratory Web search. The students expected to complete their research with a more structured and in-depth search in commercial online databases, but the second research step was not successful. We observed that students in our study were surprised that free Web resources proved to be the best source of hard-to-find information needed for the assignment. Finally, we also noted that the presentation and organization of information on the Web may have influenced the overall structure of students' information seeking — it was iterative, ill-structured, time-intensive, and abundant with accidental discovery.

The complete study appeared in *Information Research*, 7 (1), 2001, and is available at <http://InformationR.net/ir/7-1/paper115.html>. *e*

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