

Perceptions and uses of Google Scholar among undergraduate students

by

Monica Colon- Aguirre, M.B.A. & M.S.

Doctoral Student: Information Sciences

School of Information Sciences

College of Communication & Information

The University of Tennessee, Knoxville

[monica@utk.edu](mailto:monica@utk.edu)

Karen Freberg, M.A.

Doctoral Candidate: Public Relations

School of Advertising and Public Relations

College of Communication & Information

The University of Tennessee, Knoxville

[kfreberg@utk.edu](mailto:kfreberg@utk.edu)

Suzie Allard, Ph.D.

Assistant Professor: Information Sciences

School of Information Sciences

College of Communication & Information

The University of Tennessee, Knoxville

[sallard@utk.edu](mailto:sallard@utk.edu)

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University of Tennessee

## INTRODUCTION

Searching for information has become easier with the increase use of new technology and access to numerous sources online. However, current trends among college students suggest that instead of using traditional sources to access information (ex. libraries), they are turning to free online search engines like Google Scholar in order to access various publications for their course work and research assignments, including journal articles, news reports, among others. The purpose of this study is to better understand how university students use Google Scholar in their academic research while attending college. The researchers also want to determine what are the perceptions that undergraduate students have about Google Scholar as a credible source information on various topics. This study is a work-in progress piece; here the researchers will be reporting the results of the pilot study among 7 students at a southeastern university. Primary results and implications towards the information science discipline will be discussed in this research paper.

## LITERATURE REVIEW

### *Information Seeking*

Information can be defined as a difference perceived by an individual in his/her environment (Case, 2002). An information need is the recognition an individual arrives to that their knowledge is inadequate to satisfy a goal and it can lead to information seeking, which is a conscientious effort the individual makes to acquire information in response to a need or gap in knowledge (Case, 2002). The most important difference between knowledge and information is that information exists in the environment and knowledge exists in the individual (Boisot, 2002), therefore individuals need to develop and expand their knowledge by adapting information available in the environment into their being. In order to optimize the satisfaction of an information need, the individual needs to seek the right information; which might be scarce or so abundant that finding it becomes cumbersome.

This process of information seeking starts with the information need, this need has some characteristics that help distinguish them from wants or desires. According to Case (2002) the first characteristic of an information need is that it is instrumental, that is, it is a means to an end in that it involves reaching a goal. Needs are contestable, unlike wants; that is, when a need is expressed, others might question the need whereas a desire is rarely contested. Because of their ties to the concept of 'necessity', needs carry a certain moral weight which implies the prioritization of these.

And finally, needs are not necessarily a state of mind which implies that an individual might be unaware of his/her real needs.

The study of information seeking behavior as a response to a human need is usually framed on a few existing models including Brenda Dervin's 'Sense Making'. In this model Dervin included the information needs of individuals in everyday life, and it is centered on the fact that individuals realize that in order to accomplish a goal they need to bridge a gap in knowledge; this gap is what triggers the search for information (Tidline, 2005). Others argue that information seeking behaviors are directly influenced what Zipf called the Principle of Least Effort; or the tendency of individuals to adopt a course of action that involves the least expenditure of the probable least average of their work (Case, 2002). In the information seeking contest this means that when an individual needs to find information in order to bridge a gap in knowledge and make the attainment of a goal possible, their tendency will be to minimize the effort required to obtain information even when this means to settle for information of less quality (Case, 2002; p. 143).

#### *Information Seeking Behavior of College Students*

Studies of college student's information seeking behaviors have agreed with that stated in the Principle of Least Effort. According to Griffiths and Brophy (2005) 45 percent of the students use Google as their first resource when locating information, while the library's Online Public Access Catalog (OPAC) was a distant second with 10 percent of students using this service. Another study reported that 78 percent of the participants were more comfortable using the Internet's free resources rather than the library's resources. Fifty-two percent were more likely to base their decision of which resource to use on convenience of access rather than the authority of the resource. In the same study seventy-two percent of the sampled population reported preferring search engines to conduct searches to a physical library, which was preferred by only 14 percent of the participants (Martin, 2008).

#### *Google Scholar*

Google Scholar debuted in 2004 and it is still in its beta stage to this day. However this has not stopped information science professionals from giving an assessment of the search engine and its possible uses in academic libraries. Some point out that the search engine can be an alternative to more expensive databases, meta-search engines and indexes and that its advantages include its free access and basic interface (Neuhaus, Neuhaus & Asher, 2008). The perceived quality of Google

Scholar as a source of academic information has been demonstrated by the fact that some academic libraries include links to Google Scholar on their home pages, include it in their indexes list or list it among their recommended Internet search engines (Neuhaus, Neuhaus & Asher, 2008).

This situation highlights that, in the case of academic libraries, the question is not whether or not to include Google in the curriculum of library instruction but to give students a better understanding of the issues surrounding information seeking and allowing them to use any information source they choose by providing them with helpful research strategies (Sorensen & Dahl, 2008). In this context, searching for valuable academic information in Google Scholar, rather than in the general Google search engine, is the preferred strategy due to the richness and diversity content of the search engine, combined with its recognizable name brand and reputation among college students as an easy to use source of information (Jacsó, 2008; Griffiths & Brophy, 2005).

### RESEARCH QUESTIONS

Based on the review of the previous existing literature and background on information seeking behavior, information seeking behavior among college students, and Google Scholar, the researchers have three research questions they would like to explore during this research study:

R1: How do university students use Google Scholar in their academic research and papers while attending college?

R2: What are the perceptions among undergraduate students have about Google Scholar as a credible source information on various topics versus the academic library?

R3: Is there a difference in how Google the corporation is perceived compared to that of Google the search engine?

### METHODOLOGY

The population for this research study were college students at a southeastern university. College students fall into the age bracket of the most popular users of Google Scholar and other online resources, and it has become part of their overall culture and medium for information searching regarding academic purposes as well as their personal lives. A pilot study with 7 students at a southeastern university completed the pilot test of the research instrument in this work-in progress study.

A survey was created and posted through the university server. Items on the survey ranged from looking at the various perceptions of Google the corporation, as well as Google Scholar. The survey started out with a statement outlining the purpose of the research project and requiring the participants consent to participate in the study in which the completion of the survey will be evidence of their consent. The participants were provided with contact information to keep in case they have further questions about the study. The participants received the survey through an email invitation and link to the main research instrument. Only the principal investigators have access to the information provided.

## RESULTS & DISCUSSION

### *Primary results*

The general results of the pilot study indicate that five students have a communications major, and two have sciences as their major. The average age of the participants was 35 years with the minimum age of the participant being 22 and the maximum being 46. In terms of information seeking online through search engines, Google is the preferred choice with six participants using Google to search for information two or more times a week (66.7%). Yahoo was the second most frequently used search engine, but ranges widely in terms of use; two participants (22.2%) said that they use Yahoo to search for information two or more times a week, two (22.2%) participants said that they use Yahoo once a week and one (11.1%) said they use Yahoo two or more times a month.

Of the seven participants three indicated they always use Google Scholar to find research articles, one indicated sometimes, two indicated rarely and one never. While four participants indicated that they always use the library's databases to search for research articles, two indicated sometimes and one never. Three of the participants agreed with the statement that they consider themselves to be active searching for information on Google Scholar, and four disagreed with the statement that they receive more valuable information from Google Scholar than from the library's databases; two strongly disagreed with the statement.

Only three participants indicated that they agreed with the statement that Google the corporation has a good reputation. Three participants also agreed that Google is a credible source of information while three remained neutral on the subject. Four participants disagreed with the statement that Google is not a trustworthy source of information.

### *Implications towards university libraries*

The fact that the majority of the students indicated that they rarely or never at all hear professors indicating that they use Google Scholar to find information could signal that the search engine's name is somewhat tainted among academes. However, the student's use of Google Scholar in order to find information

for their classes still indicates that students are satisfied with the information they gather through the search engine.

*Implications towards information seeking behavior*

Technology will continue to change the way that individuals receive and seek information. Individuals will continue to research using technologies such as Google Scholar for academic purposes. This study will further extend the literature and theory in regards to information seeking behavior, as well as providing theoretical and practical contribution to both the information sciences and public relations body of knowledge. Researchers in the information science discipline can also benefit from understanding how a corporation is using its presence and dominance online in communicating messages to stakeholders (e.g. students) through a credible source (e.g. academic libraries). All of these elements allow a multidisciplinary perspective of the phenomenon on information seeking behavior and emerging technology. Further research will be needed to fully understand all of the reasons why people use Google Scholar, why they feel it is a credible source for information and research, and what meanings come from the information.

### References

- Boisot, M. (2002). The creation and sharing of knowledge. In C. W. Choo, & N. Bontis, *The strategic management of interlectual capital* (pp. 64-78). Oxford: Oxford University Press.
- Case, D. O. (2002). *Looking for information: A survey of research on information seeking, needs, and behavior*. Oxford: Academic Press.
- Griffiths, J. R., & Brophy, P. (2005). Student searching behavior and the web: Use of academic resources and Google. *Library Trends*, 53 (4), 539-554.
- Jacsó, P. (2008). Google Scholar revised. *Online Information Review*, 32 (1), 102-114.
- Martin, J. (2008). The information seeking behavior of undergraduate education majors: Does library instruction play a role? *Evidence Based Library and Information Practice*, 3 (4), 4-17.
- Neuhaus, C., Neuhaus, E., & Asher, A. (2008). Google Scholar goes to school: The presence of Google Scholar on college and university web sites. *The Journal of Academic Librarianship*, 34 (1), 39-51.
- Sorensen, C., & Dahl, C. (2008). Google in the research and teaching of instruction librarians. *The Journal of Academic Librarianship*, 34 (6), 482-488.
- Tidline, T. J. (2005). Dervin's Sense-Making. In K. E. Fisher, S. Erdelez, & L. McKechnie, *Theories of Information Seeking* (pp. 113-117). Medford: NJ: Information Today, Inc.