June 2008

Keeping the Enemy Close: Integrating Google Scholar into the Online Academic Library

John Wenzler

San Francisco State University, jwenzler@sfsu.edu

Follow this and additional works at: <https://docs.lib.purdue.edu/atg>

Part of the [Library and Information Science Commons](#)

Recommended Citation

Wenzler, John (2008) "Keeping the Enemy Close: Integrating Google Scholar into the Online Academic Library," *Against the Grain*: Vol. 20: Iss. 3, Article 1.

DOI: <https://doi.org/10.7771/2380-176X.2393>

This document has been made available through Purdue e-Pubs, a service of the Purdue University Libraries. Please contact epubs@purdue.edu for additional information.

ample of the library not being the sole owner of resources for which vendors may want to trade their research. In this case, the vendor was willing to sell its report in exchange for both cash and information. The students were able to use **Google** to identify both the information they thought they needed and a contact at the vendor providing the information. They then used that information to broker an exchange of their own information. Fifteen years ago, students could only identify information the library had already selected for them using finding tools the library provided; not only can today's students use tools external to those supplied by the library to access information available to them outside the library, they can also identify the creators of that information.

Conclusion

As shown here, the Internet in general and **Google** in particular have impacted libraries and their services in irreversible ways. Students have access to many more information resources than ever before, and the vast majority of these are no longer maintained by the library. As a result, libraries must ask new questions about the need to balance the needs of their current and future users. Libraries must also create finding tools that enable users to search library collections as quickly as they can search collections outside the library. Finally, libraries must realize that students now have access not only to other resources, but to those responsible for creating those resources. Libraries are no longer the only party responsible for negotiating for information, collecting it, and providing access to it, and the sooner they realize this, the more relevant they will be to their students. 🌿

Endnotes

1. Reynolds, M. & Vince, R. 2004. "Critical management education and action-based learning: Synergies and contradictions." *Academy of Management Learning & Education* 3: 442-456.
2. Smith, B. & Dodds, R. 1997. "Developing managers through project-based learning." Aldershot/Vermont: Gower.
3. DeFillippi, R. J. 2001. "Introduction: Project-based learning, reflective practices, and learning outcomes." *Management Learning* 32: 5-10.
3. Sipher-Mann, Leah. (2008) "Students' Sustainable Business Plan Racks Up Wins — and \$65,000." Stephen M. Ross School of Business Website, http://www.bus.umich.edu/NewsRoom/ArticleDisplay.asp?news_id=12533. Retrieved May 9, 2008.

Keeping the Enemy Close: Integrating Google Scholar into the Online Academic Library

by John Wenzler (Electronic Resources Coordinator, San Francisco State University, J. Paul Leonard Library; Phone: 415-405-0694) <jwenzler@sfsu.edu>

Introduction

Although it is less than four years old, **Google Scholar** has already generated an enormous amount of attention from academic librarians. It is a disruptive innovation with ambiguous implications for the future of academic libraries. Will **Google Scholar** degrade the quality of scholarship by enticing researchers away from the sophisticated tools that librarians have developed or will it be a valuable introduction to library resources for students intimidated by the conventions of scholarly discourse? I will summarize arguments on both sides to make the case that the best policy for academic libraries is to embrace **Google Scholar** as closely as possible — either as a friend or as an enemy — by integrating it into the library's online environment as the **San Francisco State University (SFSU) Library** has done.

Google Scholar as the Enemy

Google Scholar threatens academic libraries because it undermines the symbiotic relationship that has developed between librarians and online databases such as **EBSCOhost** and **Web of Science**. Although few researchers in the digital age need the bulky volumes of printed citations that previously sat on a library's reference shelves, libraries have continued to serve as valuable intermediaries between online citation databases and their end users. Digital indexes such as **Academic Search Premier** or **Web of Knowledge** are powerful tools for discovering relevant research, but they are expensive to buy and difficult to learn. Academic researchers, especially new students, would be overwhelmed if they had

to go out into the marketplace as consumers to choose between the various resources available to them. Thus, librarians perform a valuable service by evaluating and purchasing online databases for the collective use of their patrons. At the same time, librarians serve as experts in the use of these tools, instructing novice users in the intricacies of **Boolean** logic, subject specific thesauri, and other skills required to use these resources effectively.

Google Scholar challenges the librarian's role as the natural interface between scholarly researchers and online discovery tools in two senses. First, **Google** provides its services free of charge. Academic researchers do not have to go through the library's proxy servers to access the scholarly citations indexed by **Google** as they have to do with "library" databases. This reduces the scholar's dependence on the library as the means of purchasing expensive research tools, and diminishes the visibility of the library in the eyes of students who may be able to conduct their research without visiting either the physical or virtual library. Second, because **Google Scholar** gives users a simple and familiar search interface, it reduces the need for the instruction provided by librarians. Like **Google's** Web search engine, **Google Scholar** relies on automated ranking algorithms rather than on the skill of the user to identify relevant search results. If **Google** ever were to dominate the marketplace for scholarly research tools as thoroughly as it dominates the Web search

engine marketplace, the value of the reference librarian's expertise in online searching would be greatly diminished.

Early reviews in the library literature suggest that **Google Scholar** will not conquer its competitors by offering a superior product. Peter Jascó's thorough comparison between

Google Scholar and **Web of Science** demonstrated that **Web of Science** is more complete and more accurate in almost every sense.¹ Other studies have shown that **Google Scholar** is less useful for finding relevant citations than general purpose subscription databases such as **Academic Search Premier** or various subject specific databases used by libraries.² **Google Scholar** also

is much less transparent than other scholarly databases. It does not offer users a list of the publications that it indexes. Nor does it provide a complete explanation of the algorithm that it uses to determine the relevancy of the citations returned in a search. The conclusion of these early reviewers is that **Google Scholar** may be a useful addition to existing scholarly research tools but would be utterly inadequate as a replacement for them.

Nevertheless, **Google Scholar** is a serious threat to other scholarly database vendors because cheap and easy tools often defeat difficult

continued on page 40

and expensive tools in the online information economy even when the expensive products are much better.³ Librarians know that students gravitate toward the easiest search interfaces available to them regardless of how useful it is for their research needs. Although librarians often attribute this behavior to laziness or inexperience, **Shapiro** and **Varian** would argue that the students are making a rational choice because information is an "experience good." Due to the uncertainty inherent in the quest for knowledge, researchers never know how valuable their discoveries will be until after they spend their time, effort, and money on the search process. Perhaps the extra time spent on doing a thorough search in an intimidating database like **Web of Science** ultimately will be "worth it" in the eyes of the researcher, but perhaps not. When researchers have ready access to an easy search tool that gives them adequate results, it often does not make sense for them to take the risk of investing additional effort on a difficult search tool that may not do better.

The greatest danger of **Google Scholar** from the perspective of academic librarians is that it will degrade the marketplace for scholarly research so that it no longer will be possible for anyone to invest the resources required to produce a sophisticated search tool such as **Web of Science**. If students abandon the library's subscription databases to use **Google Scholar** instead, it will become increasingly difficult for libraries to justify their expenditures on these tools. Without the support of library subscriptions, **Google's** competitors will be unable to continue producing high quality scholarly search products, and **Google** could become the dominant option for discovering scholarly content. At that point, **Google** would have even less incentive to develop **Google Scholar** in a way that is consistent with the needs and values of the academic community than they do now.

Google Scholar as an Ally

Google Scholar has the potential to benefit academic libraries by making their collections more visible and their services more evident to users. Two recent studies of Internet and library use somewhat surprisingly discovered that they were correlative.⁴ On average, the more that someone used the Internet, the more that she used the library as well. These results challenge the common notion that libraries and the Internet are involved in a zero-sum competition for the same information consumers. In fact, the most recent study argues that "the use of one source leads to others; museums, public libraries and the Internet do not compete, but rather complement each other in this information-rich environment."⁵ Ultimately, **Google Scholar** and other **Google** projects such as **Google Book Search** may stimulate a desire for information that libraries are uniquely positioned to satisfy. **Google Scholar** could become an entry-level research tool that introduces students to the rich resources available at

the library and entices them to visit the source to get even more.

Google Scholar promotes library use in a couple of important ways. First, much of the literature that **Google Scholar** indexes is expensive, copyrighted material. Although researchers can read abstracts of copyrighted articles on **Google Scholar**, they have to pay the publisher or go to the library if they want the entire content. Because **Google** wants to limit the frustration experienced by its users, it has made it easier for those associated with academic institutions to get to the library's subscriptions by setting up **Google Scholar** as an OpenURL source. Any library that has an OpenURL resolver can direct its users from **Google Scholar** to library's ejournal subscriptions. By providing a quick and simple interface to access scholarly material, **Google Scholar** potentially makes it much easier for university researchers to discover expensive online content that the library has acquired for their use.

Second, the limitations of **Google Scholar's** simple search interface for answering sophisticated research questions may increase a student's appreciation for the expert assistance provided by librarians. Although students who get adequate results with **Google Scholar** are unlikely to look for something better at the library, a recent study suggests that **Google** searches are not even minimally adequate for the needs of most college students who are working on research papers.⁶ The study demonstrated that students working on a class assignment often started their research with a general Internet search engine, but quickly became frustrated with them. In the long run, the students found that they were much more successful and satisfied when they used the library tools that were built with the specific needs of the students in mind and when they could get direct assistance of librarians.

against the grain people profile

John Wenzler

BORN & LIVED EARLY LIFE: San Francisco.

IN MY SPARE TIME I LIKE: Swing Dancing.

FAVORITE BOOKS: My current enthusiasms are *No One Makes You Shop at Wal-Mart* by **Tom Slee** and *The Shock Doctrine* by **Naomi Klein**. *Moby Dick*, *The Brothers Karamazov*, and **Emerson's** essays are long-term favorites.

MOST MEANINGFUL CAREER ACHIEVEMENT: Completing my Doctoral Dissertation after about five years and 450 pages of work.

HOW/WHERE DO I SEE THE INDUSTRY IN FIVE YEARS: I'll answer for the library industry. I see a growing effort to integrate library resources into the broader world of the Internet. And I hope that we'll see a renewed appreciation of the social value of libraries and other public goods that try to satisfy needs that the market economy tends to neglect. 🌱

Electronic Resources Coordinator
San Francisco State University, J. Paul Leonard Library
Phone: (415) 405-0694
<jwenzler@sfsu.edu>

In an ideal world, academic libraries would be able to take advantage of the frustration experienced by researchers whose information needs exceed the abilities of **Google Scholar** by using it as a bridge between the Internet and the library. With one foot in the World Wide Web and another foot in the intimidating world of peer-reviewed journals and scholarly discourse, **Google Scholar** can help college students make the transition from Web surfers to information literate academic researchers. Just as a novice wine drinker who buys a few bottles of cheap wine from the supermarket may develop sophisticated tastes that lead her to try more expensive vintages, a few searches on **Google Scholar** may help novice scholars develop a taste for independent research that lead them to the sophisticated tools and experts available in the library.

Domesticating Google Scholar

Although it is still too soon to know whether **Google Scholar** ultimately will be a friend or a foe of academic libraries, librarians can influence the results by integrating **Google Scholar** into the library's online environment as much as possible. If researchers see **Google** as an external resource completely unrelated to the library, they will be less likely to use it as a bridge into the library. The less expensive in terms of time and effort it is for the student to get from **Google Scholar** into the library's resources, the easier it will be for her to take that next step.

At **SFSU**, we have used all the technical resources currently available to us to make **Google Scholar** behave like "just another library database" in the eyes of our students. We started by adding OpenURL links from **Google Scholar** to our SFX server through **Google's Library Links** program so that researchers on campus see hyperlinks that say "**SFSU: Find Full Text**" on the **Google Scholar** results

continued on page 42

screens. However, there are limitations to this approach. Only on-campus users see the links to the library resources because **Google** uses the IP address of the user to determine which OpenURL server to use. When our patrons do research from home, as many of them do, **Google** does not know that they are from **SFSU** and cannot direct them to our resources. **Google** does allow end users to specify which library they want to use for "Library Links" on its "scholar preferences" page, but few users set this preference independently because it is difficult for the uninitiated to understand what it does.

To address this issue, the library has included **Google Scholar's** URL in our proxy server and added re-written links (which go through the proxy) to **Google Scholar** to our list of databases on the library Website. Normally, the proxy server is used for subscription databases that require researchers to identify themselves as library patrons before they gain access. However, by sending our patrons through the proxy server so that they pick up an **SFSU** IP address when they are using **Google Scholar**, we allow **Google** to identify them as **SFSU** users. From the perspective of students who start out on the library Website, therefore, **Google Scholar** works in the same way as our subscription databases do. **Google** automatically adds links back to our SFX server from the **Google Scholar** results pages as it does for on campus users.

Another technical tool that helps the library domesticate **Google Scholar** is **LibX**, a browser plug-in for libraries that was developed by librarians at **Virginia Tech University** and which we have adapted for the use of our patrons.⁷ In addition to the many other useful things that it does, **LibX** automatically adds our **Library Links** to **Google Scholar**. If a researcher is using **Google Scholar** with a browser that has our version of **LibX** installed, she will see OpenURL links back to the library's resources even if she has not set up the Scholar Preferences or gone through the library's proxy server. In addition, **LibX** helps the library get its branding into **Google Scholar**. The links added by **LibX** use a button image created by the library instead of the plain text links that **Google Scholar** allows us to use in the **Library Links** program. This makes it easier for our users who are familiar with our SFX button, which is used for OpenURL links in our subscription databases, to know what they will get when they click on a link to our resources from **Google Scholar**.

So far, our efforts to integrate **Google Scholar** into the library have not been perfect because patrons who access **Google Scholar** without going through our Website or installing our **LibX** plug-in still do not see links back to our resources. Thus, those researchers who are least likely to visit the library in the first place will also be least likely to discover the connections between **Google Scholar** and the library. It is difficult to estimate how many potential library users are trying to do all of

against the grain people profile

Bruce Heterick

BORN AND LIVED: Born in Blacksburg, VA; currently live in Barrington, RI.

PROFESSIONAL CAREER: Did my undergraduate and graduate work at **Virginia Tech**; started my career as a developer at **Virginia Tech**, then worked for **VTLS**, **Faxon**, **Blackwells**, **SCT/SunGuard**, and **JSTOR** for the past nine years.

FAMILY: Married to Jill for past 20 years; 4 children (**Wesley-16**, **Miller-13**, **Sloane-9**, **Cary-6**).

PET PEEVES/WHAT MAKES ME MAD: People who take themselves too seriously; bad pizza; Rhode Island government.

PHILOSOPHY: Be happy where you are, but not content.

MOST MEANINGFUL CAREER ACHIEVEMENT: Working at **JSTOR**.

SPARE TIME: Golf and Virginia Tech sports.

FAVORITE BOOKS: *For One More Day*.

GOAL I HOPE TO ACHIEVE FIVE YEARS FROM NOW: Run an organization that is doing something important and meaningful.

HOW/WHERE DO I SEE THE INDUSTRY IN FIVE YEARS: See my "Shift Happens" presentation from 2007 **Charleston Conference**. 🐼

Endnotes

1. Peter Jasco, "Google Scholar: The Pros and The Cons," *Online Information Review* 29, no. 2 (2005): 208-214.
2. Burton Callicott and Debbie Vaughn, "Google Scholar vs. Library Scholar: Testing the Performance of Schooogle," *Internet Reference Services Quarterly* 10, no. 3/4 (2005): 71-88.
3. Carl Shapiro and Hal Varian demonstrated this point repeatedly in their classic book on the information economy, *Information Rules: A Strategic Guide to the Network Economy* (Boston: Harvard Business School Press, 1999). See especially their discussion of the battle between *Encyclopedia Britannica* and *Microsoft's Encarta* pp.19-30.
4. Leigh Estabrook, Lee Rainie, and Evans Witt, "Information searches that solve problems: How people use the internet, libraries, and government agencies when they need help" (*PEW*, December 30, 2007), http://www.pewinternet.org/pdfs/Pew_UI_LibrariesReport.pdf and Jose-Marie Griffiths and Donald King, "InterConnections: The IMLS National Study on the Use of Libraries, Museums and the Internet" (*Institute of Museum and Library Studies*, February 2008), <http://interconnectionsreport.org/reports/ConclusionsFullRptB.pdf>.
5. Griffiths and King, p8.
6. Alison J. Head, "Beyond Google: How do Students Conduct Academic Research?," *First Monday* 12, no. 8 (2007), http://www.firstmonday.org/issues/issue12_8/head/.
7. See <http://www.libx.org/>.