How Scholars Work

Panning for Gold in Libraries

Judith M. Nixon, Guest Columnist

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Numerous articles have been written about the impact of today's simplified, remote access to information on the research habits of scholars, but few have probed the research process from the germination of an idea through the steps that bring it to fruition in this era. This article, part current study and part retrospective, does just that. Here Judith M. Nixon lends her insight into how liberal arts scholars engage in the research process. Sharing outcomes discovered through a recent workshop series offered by the Purdue University Libraries, Nixon suggests that the previously held notion of what made liberal arts scholars tick no longer holds in today's information environment-at least not entirely. She likens scholars' current approach to information seeking to panning for gold. The immediate past editor of this column, Nixon once again demonstrates the value of gathering and assessing user data to inform management decisions. In describing how humanities and social sciences scholars now work, she ably articulates a recommendation for how libraries can interact more effectively with them and help facilitate their approach to research as it continues to change.--Editor

ow do liberal arts scholars work? For example, where do they get their ideas? When beginning a research project, do they start with a Google search, or the library's homepage? How and when do scholars use libraries and library resources—especially library-funded databases? How has research changed since the explosion of the Web?

These are questions that I and the other social science and humanities librarians at Purdue University Libraries have been asking. The answers would help us provide the necessary resources for scholarly pursuits and improve interaction between researchers and librarians. To begin to find answers, we invited selected faculty members and students to a How Scholars Work series. Every Thursday afternoon in October 2008 we held a panel discussion asking three to four scholars to share their research methods. We listened. Participants included undergraduates, graduate students, and faculty from accounting, classical field archaeology, art history, English, foreign languages and literature, history, philosophy, and sociology.

To kick off the series we invited Carole Palmer, associate professor of library and information science at the University of Illinois at Urbana-Champaign and director of the Graduate School of Library and Information Science's Center for Informatics, to be our keynote speaker. Palmer's presentation was directly tied to her emerging research into how scholars in the humanities and the social sciences are working.¹ Her

MANAGEMENT

findings, corroborated by the research of Carol Tenopir,² reveal that today's scholars are looking at more articles than in the past—about 250 per year—but spending less time with each article. However, they are analytically engaged even if they are not reading. Palmer identified such "nonreading" activities as scanning, exploring, and looking at indexes and abstract tools, but not actually reading the article from beginning to the end. She also identified other activities that are similar to reading: probing, rereading, monitoring, and reading around. She noted that researchers in the humanities read around, collect, and reread while scientists, who are more fast-paced and horizontal, tend to scan more frequently. Additionally, Palmer identified a behavior called "chaining" in which one thing leads to another and another. She also mentioned that scholars are collecting articles to own and to reread in the future. They are building thematic collections of research resources, including manuscripts, published research, and data. With Palmer's research results in mind, we were motivated to listen to what our scholars had to tell us about their unique searching methods.

WHERE DO SCHOLARS GET THEIR IDEAS?

We tend to think of the liberal arts scholar, especially the humanities researcher, as a solitary person sitting quietly in a study carrel reading and getting ideas from reading, then writing single-authored papers. In the past we described the library as our liberal arts scholars' laboratory. What we learned during the How Scholars Work series is that the liberal arts scholar is very connected with other scholars, and that ideas tend to come from communicating and networking with them. One of our students identified the importance of getting passionate about a topic and that faculty members were critical in this step. Research was described by the workshop panelists as an evolving or growing process, with the key component being an inspiring question to pursue, usually originating from a conversation. One English faculty member described an assignment that specifically involved students in the networking process; it was essential for each group to consult with other groups to get the data needed to successfully finish their portion of the project. This faculty member thought the process of networking to be so important that a sizable part of class time was dedicated to teaching it. Even the undergraduate students stressed the importance of sharing ideas with friends and collaborating with them. One student described a research project that used his friends to test his theory.

WHAT SOURCES DO THEY CONSULT? HOW DO THEY USE LIBRARY RESOURCES?

For these faculty, doing the searching and research steps is like panning for gold. Although we still suspect that many researchers begin a project by checking Google, none of the participants mentioned Google or the Web as either a first step or an important one in the research process. Rather, they said that often the first step is to locate known reports, although no one verbalized how this was done. One scholar said he scoured the journal literature for clues, and several said they use a wide selection of databases, including Google Books. One faculty member said the advent of online databases has made her research significantly easier. The history faculty member stated that he works on two or three projects at a time, starting with a drawer full of articles that he has amassed. He expands his search by going to a database (again, no specific one mentioned), prints and sorts abstracts, and then obtains the full text of selected articles.

Yes, they certainly use library resources: books, journals, and especially the indexes and abstracting databases. However, the whole process is less systematic than librarians might hope. Scholars suspect that the library is very organized and, if they took the time to learn the resources, the process might be more orderly, but by and large they start with a topic then use scattered sources such as bibliographies, indexes, abstracts, databases, and the Web.

Chaining: A Step-by-Step Process

All participants said that one thing leads to another, research is a step-by-step process, and one idea builds on the next. Here they are describing Palmer's concept of "chaining." Another, similar method was expressed, which scholars in the past have referred to as "serendipity." This is the phenomenon of finding something valuable to the research topic while searching for something else. In some cases, finding this important research lead happens while doing something totally unrelated to the research. One faculty member related that while in a library waiting for someone else, she happened to flip open an art book and found pictures of llamas in Europe. Her research was related to llamas; however, this was her first clue that llamas had been imported to Europe as work animals. This ultimately became a major research topic.

Two undergraduate students said librarians also were very influential during their research and identified the "teachable moment" as the sophomore year. This was, of course, music to our ears. They strongly encouraged librarians to connect with faculty to find a way to reach all students at this teachable point. They were fully aware that connecting to the library often happens when a faculty member facilitates it.

Reading and Writing

The next step of the research process is to read. We heard this again and again throughout the workshop series; *reading* is the most important component of the research. Every scholar, regardless of their experience as a researcher, stated this in one way or another. "I compile a stack and read." "I travel to the primary material and read." Although none of them stated that they did not read articles or books from beginning to end or that they did any "nonreading" activities, there were implications of this. For example, one person said, "I read newspaper articles, diaries, and letters. I skim intuitively to cover the quantity of material I need to read." Skimming and scanning material to dig out the important and useful paragraphs seems to be such a common process that they did not identify it as separate from their reading process. One student clarified the reading step by saying that she used the same mental template when reading a research paper that she used when writing a paper: What is the main point? How is it supported? This too supports the scanning and exploring method of reading.

Several scholars stated that another important aspect of this second step is *writing*. The philosophy graduate student emphasized that philosophers *do research by writing*. They require access to ideas and primary sources, but their research is writing.

Travel to Use Libraries and Archives

Most of the faculty members stated that they frequently travel to the sources and then spend hours and even days reading. Many of them use archives and special collections and found the description of such sources is often not adequate; they do not know until they arrive there if it will be a useful trip or not. This reinforces the "panning for gold" notion of libraries. One faculty member, who has made extensive use of libraries and archives, described a distinct difference between the experiences at each. Library staff members are friendly, welcoming readers and writers, and libraries frequently have more material than the staff is even aware of-for example the 1880 Census on microfilm. Libraries are peaceful, quiet, well lit, and (more important to the traveling scholar) they have long hours. Opposite this is the archivist, who is more concerned with guarding a collection that is generally accessible fewer hours of the day.

HOW HAS RESEARCH CHANGED SINCE THE GROWTH OF THE WEB?

The research process described by the panel members is not much different from that used by researchers twenty-five years ago—search, amass material, read—except that much of the searching is now done at their desktops. However, they hardly mentioned this change; it has become so integrated into the search process that it is now just part of their normal routine. They do not sit in the periodical stacks looking through printed journals as they did in the past. When asked about this change, some of the faculty members expressed a sense of loss; they enjoyed the quiet, isolated environment and the serendipitous nature of the process. However, they do not miss it enough to change and walk over to the library again. If asked, they clearly believe that the process is easier and more convenient now. They love the online access they have, but convenience is not paramount in their descriptions of the process.

SUMMARY

Today's scholar is connected closely with other scholars and spends much time reading. The time spent searching is integrated into the research process, so it is hardly identified as separate. Today's scholars spends most of their time reading, then digging, then reading some more. They browse online and in libraries to find material to read. They travel to libraries and archives to find hidden treasures to read. For the humanists, libraries are places to have access to books and journals. For social scientists, libraries are purveyors of the data they need—journals and databases with current or archived data. Both the humanist and the social scientist use a wide array of sources and resources and cannot verbalize the search strategy. They are digging for the gold that is the published word. They are reading to write, and writing leads to more reading.

References

- 1. Carole L. Palmer, Lauren C. Teffeau, and Carrie M. Pirmann, Scholarly Information Practices in the Online Environment: Themes from the Literature and Implications for Library Service Development (Dublin, Ohio: OCLC Research and Programs, 2009).
- Carol Tenopir and Donald W. King, "Electronic Journals and Changes in Scholarly Article Seeking and Reading Patterns," *D-Lib Magazine* 14, no. 11/12 (Nov./Dec. 2008), www.dlib.org/dlib/ november08/tenopir/11tenopir.html (accessed Dec. 1, 2009).