

The Librarian-Student-Faculty Triangle: Conflicting Research Strategies?

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Abstract

Is there a fundamental conflict between the professional, library-school model of finding resources and the real-life practices of researchers? And, if so, what does that mean about the professional practices of librarians? These questions provide a practical focus for the interpretation of interviews of librarians, faculty members, and undergraduates at the University of Rochester. Beyond this, the paper uses the theoretical work of Jean Lave and Andrew Abbott to question what research is, and ask why that matters to the practice of librarians.

Introduction

In this paper, I argue that we can use empirical research on the work practices of scholars to describe a set of characteristic processes they use in conducting library research. Further, we can use an emerging body of theory to understand those processes and make decisions about library practice. I conclude that current library services and tools are excellent for meeting such needs as finding known items or doing last-minute work on a paper in which a student has no intrinsic interest; importantly, emerging library tools also support the tracing of networks of authors and their publications. However, we also see evidence in our research at the University of Rochester of a clash between the library-based research practices of productive scholars, on the one hand, and the services delivered at the reference desk or in bibliographic instruction, on the other. I explain what I mean by this "clash" and offer a way to address it.

The Practice of Library-Based Research

The library research process of students and faculty members has been discussed in reports on research at the University of Rochester,¹ as well as in the work of the sociologist Andrew Abbott.² By library research, I refer to the process theorized by Abbott (summarized below) that is followed by those researchers who depend primarily

on the library for their informational and theoretical resources. Much of the process occurs outside of the library, but the library is essential to the process, and the way the library is used and the way it is central differentiate the library research process from the research process in the sciences, which is characterized by the generation of data in the laboratory.

Key features of the library research process include:

- **Building up a knowledge** of key works and key authors as well as an informational and theoretical base in one's discipline and especially in one's area of specialization
- **Keeping up in one's field**, however defined, through continuous scanning or browsing of new books and journals, conference schedules and abstracts, departmental talks (at one's own department and other departments that are known to be strong), and conversation with colleagues in the same and related fields
- **Developing connections to others** who share one's interests, from entering students to luminaries in the field, using a variety of means, including attending talks and conferences, corresponding or speaking in person, and otherwise participating in scholarly networks
- **Utilizing the world of sources and resources** wherever they may be and however they may be found and used, including materials in library stacks, electronic journals, archives and special collections, and "the Web" – and using whatever tools could possibly work to find and get hold of these sources and resources
- **Maintaining one's own library** of resources, including print and electronic documents, books, journals, papers, notes and correspondence, with some organizational scheme, or set of schemes, to enhance understanding on first reading and to support accretion and retrieval of information and the development and increasing complexity of one's own work
- **Producing one's own work**, incorporating one's own past work and the work of others, and then publishing or otherwise sharing manuscripts, books, reports, articles, presentations and so on

For a researcher, using a library catalog or database represents a small portion of a large number of tactics that might be employed to get resources for specific projects and generally to keep up in one's fields. This, of course, stands in opposition to the library view in which the central position is accorded to the OPAC – the online public access catalog – and databases – electronic indexes to bodies of literature, often journal and newspaper articles. It is no surprise that library technology looks different to different people. Each of us sees the world from a personal perspective, a perspective constrained by our interests and, especially, by our responsibilities. We would expect the people who are responsible for the library's finding aids and technologies and who use them as tools in their own work to place them front and center. However, there is

an explanatory benefit in seeing research from the perspective of the researcher, that is, in imagining what the world looks like to library patrons who use the OPAC and databases and all the other resources, services and tools the library offers.

Scholars conducting library research are driven by questions and engaged in a network of scholars, their works, and a variety of artifacts that inform the research pursuit. This view of library-based research and the pursuits of researchers accords people and things equivalent agency in the network of science work.³ Such things as journal articles and their persuasive arguments may become, for a time, at least, inarguable truths (“black boxes”), acting as authorities as much as the authors – the people – in the network act as authorities.

In interviews for the eXtensible Catalog project,⁴ we see the enormous importance given to both kinds of authority – that of respected scholars and that of classic works and discoveries. Both are used as points of departure in library research, and both are used a relatively large proportion of the time, according to our studies.⁵ Indeed, authors are very much the favored nodes in our interviewees’ networks; when we ask how researchers found the works they are currently using, the answer was frequently that they found them through a personal contact (a conversation with a colleague, for example), or through a search for the author (already a known authority), or through a search of an authority’s footnotes and bibliographies. Of course, this approach – through authors and authorities – requires a base of knowledge, one we might assume to belong only to advanced scholars. However, our research also shows that even undergraduates, when they are motivated and interested in their academic work, quickly begin to build up this kind of knowledge base, in which key authorities figure prominently. One of the surprising findings of research for eXtensible Catalog is that many of the undergraduates who are most successful at research have attended a scholarly conference at which they met some key people in their field. Indeed, there is some evidence in our research that a key moment in the intellectual development of undergraduate researchers is the realization that all those books and articles are written by people, and that they might meet and talk with those people, and perhaps study with them or become their colleagues one day.

Research Support at the Desk

When an undergraduate approaches a librarian at the desk, the librarian may respond in a variety of ways, since there is no single, uniform process or method of conducting a reference interview. When I questioned librarians at the University of Rochester about their training in library school and about standard or influential models of the reference interview, they averred that there is no consistency in training or practice, and that the same was true of bibliographic instruction. A limited search of the literature, conducted by two reference librarians and the author, supported this. Documents from the website of the American Library Association put forth standards of librarian behavior at the reference desk and in the classroom.⁶ These standards revolve mainly around helping

patrons focus their questions and then using a variety of tools to locate appropriate items; they also provide guidance on such aspects of public service as being approachable, demonstrating interest, and listening attentively. These documents do not present or consider the perspective or the practices of the researcher, other than to acknowledge that the researcher comes to the librarian with a question or an assignment, which serves as the starting point for the interaction. This starting point is implicit in other sources that our search identified. For example, we found many journal articles that focus on instructional strategies and updated approaches for reaching today's students⁷; most of this literature is practical and process oriented, sometimes presenting typologies⁸ or using psychological theories to understand and reach out to students.⁹

An interesting approach is used by Wang,¹⁰ who works within a Vygotskian framework *via* the work of Jean Lave to propose literacy-teaching activities based on a theory of learning in practice. Lave's work on "cognition in practice" presupposes that learning goes on everywhere, at all times, and that it is part of larger social processes whereby members of "communities of practice" move to the center (positions of expertise and leadership) from the periphery (a "legitimate" starting point for the novice¹¹). Wang suggests that librarians might harness the dynamics of peer-to-peer and peer-to-expert groups to activate the movement from novice toward expert in the area of information literacy. While Wang's work focuses on learning, not on research, it assumes that research is a social process; it is about the social context of inside-the-head development, the psychological side of Lave.

The sociological side of Lave is also useful for understanding what research is, that is, for contributing to a theory of library research and then illuminating the empirical research and helping us apply it to library practice. If learning is movement from periphery to center in a community of practice, we could say that different students are moving toward the center of different communities of practice; indeed, one student may be involved in research that engages multiple communities of practice. For example, we interviewed a student who is interested in underwater archaeology – he is currently pursuing an advanced degree in this area – and who wrote papers on a variety of topics, some central to his interests and others less compelling to him, personally. When doing research for a paper related to his area of specialization, the student already knew some of the key authors and classic texts and had a substantial informational base. He even has some standing in the community of underwater archaeologists from past projects and conference attendance and thus was able to launch his research from a substantial base. In writing this paper, the student was working toward centrality in the community of underwater archaeologists; in other classes and on other papers, he may have been working toward centrality in a community with little or no relation to his academic and vocational interests. For example, he might in other courses be engaged with a community of students at his college who are on track to complete their degrees or who know something about science or humanities - communities, to be sure, but ones that

do little to forward this student's engagement with the literature in his or any other field.

Students, engaged in many communities, may find that their research assignments help them move toward greater centrality in those communities in which they are working in additional ways to build relationships and gain information. That is, depending upon the assignment, one student may be engaged and informed because of past experience and ongoing interests, while another may simply be getting the job done. This is in contrast to senior scholars who tend to occupy central positions in their fields of research *across projects*. Put another way, when a student approaches a librarian, the student might or might not be informed and interested in the assignment, but when a faculty member approaches a library about his or her own research, that faculty member is almost certain to have advanced knowledge and be densely enmeshed in the associated scholarly networks.

Published guidelines for reference service and information literacy instruction, with their focus on the clarification of questions and the use of finding aids, are best suited either for students who have little grounding in the topic and are looking for items that will help them complete an assignment or for more advanced scholars who need help finding particular resources or want to trace through the work of other authors to find previously unknown works. However, these guidelines do not speak to the way that serious scholars do their research by the process, glossed above, in which a sustained inquiry into a set of intellectual and informational problems drives the development of relations with other authors and researchers and their ideas and writings. In fact, they clash in practice and in theory, as I explain, below.

Librarians Are Researchers, Too

With regard to research, we most often see librarians acting as librarians in libraries, responding to requests for research help, and we see faculty members and students, likewise, in the academic setting, working on short- or long-term projects. What would happen, we wondered, if we watched librarians, faculty members and students do research on their own areas of academic specialization, or on non-academic topics? Would they follow a similar process to each other? And would that process resemble the library research process of scholars? As far as our preliminary results go, yes and yes. Across these three groups, the process of finding information on a topic close to one's heart, for which accurate, timely, and robust information is required, the question drives the process, the researcher builds up a base of knowledge through key works (books, pamphlets, websites) and authorities (known experts, friends, fellow fans, salespeople, respected organizations) and then works these connections for more information, using whatever tools are at his or her disposal, including Google, Wikipedia and Amazon, museum collections, local libraries, online literature, personal libraries, and the information offerings of hardware stores, sporting goods stores, garden centers and other retail establishments.

What follows are four examples in which librarians and faculty members recounted for us how they found information in non-academic areas that are of great personal interest to them

A librarian talks about finding literature about a certain kind of antique textile, mainly on a used book site, and using the literature to identify gaps in her collection:

I had some books that had a bibliography in the back, and started looking that way. And then had people's last names. [Searches ABE Books for authors.]

If you look at the sources [referring, for example, to the catalog of a major collector]. These are collections that have great, big coffee table books. [...] So you can see the whole range of what's out there.

Another librarian describes a variety of tools she used in a process of seeking information about a health problem:

So, running injuries. OK. And how did I come up with the name of my problem? Plantar fasciitis [...]. I'm sure I Googled but I put in lots of words. I read a lot of articles that talk about, I mean, the way people search they'll just put in one word or they might just put in "heel pain" and put in "heel pain running de-dah-de-dah" – I put in a bunch of words to try to get something closer to the mark. I might actually go to somewhere like a medlineplus.gov [...] the right way to do it! [...] No – all we ever do is Google. [...] I went to YouTube and I searched YouTube. And there are a whole bunch of videos of exercises and what to do about the problem. [...] [M]y husband, he is always telling me oh, YouTube has videos on how to juggle and how to do this and how to-. [...] Here's another one. A friend of mine from a theatre company said, oh, I had that problem and there's an article in Runner's World about strengthening your hips to fix your feet. [...] I never found that article. She had to send it to me. [...] I know it fixed her problem. I know she's a really dedicated runner.

A faculty member describes the process he used to do background research for a novel he is writing. Much of the action takes place in a suburb, G, of the city, M.

I'm writing a novel set in M. I know that there's a portion of the book that is set in this suburb of G. I didn't spend a lot of time in G when I was in M, and so something that I did do [conducting Google search on name of suburb.] So I actually ended up using this [information about contact person, listed on public website] to call her. And so I called her, and I explained, "I'm writing this book. You serve in the government of G, but you work in real estate; you're in the garden club." And I was telling her about this house, this large house that I imagined things being set in, and I thought she might have some advice about what the grounds might look like, or what the garden club element might be. This led to a conversation that actually led to me then talking to somebody who led me to talk to somebody who led to somebody, and then when I went back to M

recently, I met her. She drove me around and sort of showed me some of the developments and things.

Another faculty member talks about using the local library and building a small personal collection of information to find out about local Amish and Mennonite communities:

So, I visited a Shaker museum a few years ago, and then I wanted to read about them, and then utopian societies; things like that. For that, I always go to the library and get books. I'm reading right now a little bit about Amish and Mennonite societies, just because in this part of the world, we brush shoulders fairly frequently. [...] Yeah, so for those-. For that sort of interest, I always just go to the library and look on the shelves for books. And I've never actually ever looked it up on the Internet; I don't know why. [...] There's two—I would call them booklets—next to my bed, and I think they were both authored by someone named Hoffstetler, who is a member of a plain folk community, as he has described. But I read another great book from the library, and I don't remember who wrote it. [...] Those I own; my husband got them for me as a gift at the-. They're used. He found them at the little antique co-op downtown, because he knew I was interested, because I was reading this other book, which I had to keep checking out over and over and over because I read it so slowly; two or three pages a night.

Faculty members use similar processes whether conducting library research in their academic specialties or finding information about the things in their private lives that intrigue them. They put the question first and use libraries, personal connections, and other means to get the information they need. The building of a network of connections, with people and objects at the nodes, is quite clear as they describe what they did to get information for a particular project or need.

Librarians have an extraordinary skill in using online catalogs, databases and other finding aids to get the information they want for personal reasons, and they use this skill and these tools for some of their research, but only for some. Like other researchers, when pursuing their own interests, librarians put the question first and use whatever tools will work, developing a base of knowledge through the accretion of classic or reliable information sources (people and objects). The clash is not between librarians, on the one hand, and faculty members and students, on the other. It is between librarians pursuing their own research interests and librarians in the professional setting.

Understanding Research

The sociologist Andrew Abbott provides a theory of library research, writing specifically of the advanced research of scholars who rely primarily or very heavily on academic libraries and similar collections for their data, as is the case in many disciplines in the humanities and social sciences, such as history and literature.¹² Contrasting library

research to the “standard research” associated with science disciplines, Abbott points first to the difference in the organization of the data. While standard researchers organize their data themselves, library researchers work with complexly organized collections. Standard researchers measure their data while library researchers read and browse; in his computational framework, this means that the two use very different algorithms for finding, absorbing and using the data. Standard research is ordered and sequential, library research partial and recursive, and so on. One of Abbott’s key insights is the artisanal nature of library research and the “multitasking” it requires; again, in the computational framework, Abbott experiences his brain working at many levels, some in the forefront – such as looking for information through a variety of sources – and some in the background – assessing those sources for reliability, for example. But perhaps the most striking of Abbott’s characterizations of library research is that it requires its practitioners to be “prepared” – that is, to bring to the task of library research the foundation of information, experience and skill that is required for successful browsing and reading, searching and assessing. And as to the goals of library research, “the overall thing library researchers aim to optimize is not a ‘truth’ but a richness and plenitude of interpretations.”¹³

While Abbott writes from the point of view of the researcher, elucidating the scholar’s process, he considers this process in its broader context. The context is another kind of network, one of people, ideas, books and articles, lab equipment and so on. This network looks different to the various students, librarians and faculty members who are bringing more or less richly developed neural networks to the task. The longer people work in a field, the more they know and see of this network. Those who have put in the most years, read a lot, met a lot of people, gone to conferences and so on, see the most.¹⁴

The more advanced scholars are familiar with the classic works and authors and they know many of the active researchers in their field, hear about their projects, read their articles, and understand the connections between the various scholars, labs, departments, books and articles, reports, and so on. Accordingly, our studies at the University of Rochester, Yale University, Ohio State University and Cornell University suggest that full-fledged researchers search for information through people. For example, many of the faculty members we studied Googled the names of people they knew, found their work on departmental web pages, and then networked from those people to others working on related problems.¹⁵ Faculty members and others who are accomplished researchers see big portions of research networks.

Students see a smaller portion - they see what pokes up on the small surface of what they know. They see mainly books and articles, although those with the interest and the opportunity, say, to attend a conference see some – but only some – of the connections.

Librarians at the University of Rochester say that when engaged in reference work, they themselves tend to have a professional view of books and articles as objects out there.¹⁶

They use specialized tools to find them, tools that are designed to find known objects or find objects related deep in their metadata or that cite or are cited by others. We are finding that this professional approach to finding is at odds not only with what faculty researchers do, it is at odds with what librarians themselves do when they are doing research on something that is within their own sphere of expertise. Nonetheless, it is the approach that they use with students, and it reinforces the fundamental difference between the research practices of faculty members and the approach of many students, especially younger students or students researching topics in which they have little interest. The librarian conspires with students to search through this imagined field of books and articles scattered about, with the game being to find the right ones in the shortest amount of time. What I would like to suggest is that this approach is excellent for a last-minute assignment, a narrowly focused search, or tracking back through cited works, but that research is much more than this. And that librarians are already good at the other methods used by the serious researchers Abbott discusses, because in their own areas of interest, librarians *are* serious researchers.

Librarians can benefit from gaining empirical data about what research is so they can be more conscious of their own research processes and use that knowledge to develop tools for helping others do research, at the desk and in the classroom. Seeing themselves as researchers with a big bag of tricks, a good foundation of knowledge in their fields of interest, and connections to others who share those interests could help librarians encourage student to develop a more mature perspective, one more closely aligned with that of their professors. And it could help librarians develop strategies that are more likely to work because they are informed by theory and based on empirical data about real researchers in real situations.

Librarians have four years to work with undergraduates in a variety of situations, from last-minute crises to sustained projects of great interest, and they have many more years to build relationships with graduate students and faculty members. With students, there are opportunities to use a theory-based approach to help students recognize, use and build networks (23).¹⁷ With faculty members, there is a prospect of partnership in this regard, as well as opportunities to expand support from “searching” to “researching” – to the more sustained building of knowledge through library-based research and the browsing and reading and connecting it entails, researcher to researcher.

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¹ Nancy Fried Foster and Susan Gibbons, "Understanding Faculty to Improve Content Recruitment for Institutional Repositories," *D-Lib Magazine* 11, no. 01 (January 2005), <http://www.dlib.org/dlib/january05/foster/01foster.html>; Ryan Randall et al., *The Next Generation of Academics: A Report on a Study Conducted at the University of Rochester* (University of Rochester, 2008), <http://hdl.handle.net/1802/6053>; Nancy Fried Foster and Susan Gibbons, eds., *Studying Students: The Undergraduate Research Project at the University of Rochester* (Association of College and Research Libraries), <http://hdl.handle.net/1802/7520>; Nancy Fried Foster, *XC User Research Preliminary Report* (University of Rochester, 2009), <http://hdl.handle.net/1802/6873>; Nancy Fried Foster, forthcoming, "What Researchers Do: A Report on User Research for the eXtensible Catalog," <http://hdl.handle.net/1802/12376>; Nancy Fried Foster et al., eds., forthcoming, *The Research Process: Findings of User Research for the eXtensible Catalog*, <http://hdl.handle.net/1802/12375>.

² Andrew Abbott, "Library Research and Its Infrastructure in the Twentieth Century" (presented at the Windsor Lecture, University of Illinois, 2008a), <http://home.uchicago.edu/~aabbott/Papers/illinois.pdf>; Andrew Abbott, "Publication and the Future of Knowledge," June 27, 2008b, <http://home.uchicago.edu/~aabbott/Papers/aaup.pdf>; Andrew Abbott, "The Traditional Future: A Computational Theory of Library Research," *College and Research Libraries* 69, no. 6 (November 2008c): 523-545.

³ Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society* (Cambridge, Mass.: Harvard University Press, 1988).

⁴ We conducted a total of 80 workplace interviews of faculty members, graduate students and undergraduates at four institutions, focusing mainly on how they had acquired the sources and resources they were using and how they keep up in their fields. We interviewed productive scholars – established scholars who are actively publishing or students who are deemed by their professors to show promise – in all fields but mostly in the humanities and humanistic social sciences. For more information, see Nancy Fried Foster, *XC User Research Preliminary Report* (University of Rochester, 2009), <http://hdl.handle.net/1802/6873> and Nancy Fried Foster, "What Researchers Do: A Report on User Research for the eXtensible Catalog," <http://hdl.handle.net/1802/12376>.

⁵ Nancy Fried Foster (forthcoming).

⁶ ALA Reference & User Services Assn., "Guidelines for Behavioral Performance of Reference and Information Services Professionals," 2004, <http://www.ala.org/Template.cfm?Section=Home&template=/ContentManagement/ContentDisplay.cfm&ContentID=26937>; Association of College & Research Libraries,

“Objectives for Information Literacy Instruction: A Model Statement for Academic Librarians,” 2001,

<http://www.ala.org/ala/mgrps/divs/acrl/standards/objectivesinformation.cfm>.

⁷ Lynn Kennedy, Charles Cole, and Susan Carter, “Connecting online search strategies and information needs: a user-centered, focus-labeling approach,” *RQ* 36, no. 4 (Summer 1997): 562-568,

http://find.galegroup.com/gtx/infomark.do?action=interpret&contentSet=IAC- Documents&type=retrieve&tabID=T002&prodId=ITOF&docId=A19779498&source=gale &srcprod=ITOF&version=1.0&userGroupName=nysl_ro_rochstru&finalAuth=true;

Debbie Malone and Carol Videon, *First year student library instruction programs* (Association of College & Research Libraries, 2003); Dianne Oberg, “Teaching the research process - for discovery and personal growth,” paper presented at the 65th IFLA Council and General Conference, Bangkok, Thailand (1999),

<http://archive.ifla.org/IV/ifla65/papers/078-119e.htm>.

⁸ Marilyn Domas White, “The Reference Interview: Impact of Environmental Constraints,” paper (presented at the Joint Meeting of the District of Columbia Library Association and the Virginia Library Association, Crystal City, VA (1987), <http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED 309784>.

⁹ Elizabeth J. McNeer, “Learning theories and library instruction,” *Journal of Academic Librarianship* 17, no. 5 (November 1991): 294-297, <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=9706230005&site=e host-live>.

¹⁰ L. Wang, “Sociocultural Learning Theories and Information Literacy Teaching Activities in Higher Education,” *Reference & User Services Quarterly* 47, no. 2 (Winter 2007): 149.

¹¹ Jean Lave, *Cognition in Practice: Mind, Mathematics and Culture in Everyday Life* (New York, NY: Cambridge University Press, 1988).

¹² Andrew Abbott, 2008c.

¹³ Andrew Abbott, 2008c, p. 538.

¹⁴ A future paper will look at the constraints imposed by the assemblage of selected books, papers, ideas, equipment and so on, discussed by Latour, *op. cit.*, but not considered here.

¹⁵ Nancy Fried Foster, forthcoming.

¹⁶ I owe this insight to Helen Anderson, Head of Collection Development at the University of Rochester’s River Campus Libraries; it was confirmed in subsequent conversations with many other Rochester librarians.

¹⁷ Rob Weir, “Using Library Experts Wisely,” *Inside Higher Ed*, July 16, 2010, sec. Instant Mentor, http://www.insidehighered.com/advice/instant_mentor/weir27.