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**Mountains, Valleys, and Pathways:
Serials Users' Needs and Steps to Meet Them.
Part I: Identifying Serials Users' Needs: Preliminary Analysis
of Focus Group Interviews and Semi-structured Observations
at Colleges and Universities**

Notes

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Abstract

An overview of the preliminary analysis of focus group interviews and semi-structured observations identifies how and why college and university information seekers meet their information needs. In the age of immediate gratification, in certain situations users may settle for information that is quickly and easily available instead of library sources that are considered more authoritative and trustworthy. Meeting user needs in the library environment requires updating library catalogs to implement discovery and recommender services that provide the associations and links that are available to users in other web-based environments and that meet these users' expectations of online systems and sources.

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There currently is much discussion about the future of library catalogs, resources, and services. These discussions become more important in a time of tight budgets and informal accounts of users' increased dependence upon Internet resources and web browsers. In his weblog, Lorcan Dempsey stated, "...it is interesting to me that we have a flowering of interest in the catalog, and an appreciation of how much better it should and could be, at just the moment when the classic catalog may be fading in importance as a central venue of user activity." 1 Is this new-found interest in the library catalog a result of the concern that the library catalog is losing ground in the world of information retrieval, which may result in little or no use of the catalog, ultimately losing institutional support and access to library collections?

In a paper addressing the changing nature of the catalog, Karen Calhoun states, "Because it is catalog data that has made collections accessible over time, to fail to define a strategic future for library catalogs places in jeopardy the legacy of the world's library collections themselves...At a minimum, research libraries need first to explore extending the life of the catalog through innovation and cost reduction and second, to develop new uses for catalog data for existing catalog users." 2 She makes a case for enriching the library catalog with discovery tools that will link the reader to full-text electronic resources as well as recommender services that include reviews and identify related sources.

In order to develop new discovery and recommender services for library retrieval systems, specifically library catalogs, it is crucial to first identify how and why individuals seek and search for information. The final report of a study to identify the users and uses of digital resources in undergraduate education in the humanities and social sciences, conducted at the University of California-Berkeley, reports that "...faculty use a variety of strategies for negotiating the digital morass. For most, the path of least resistance is the one usually taken – a Google search, a walk down the hall or an

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email to a colleague, a visit to the website of a trusted archive, or often one's own eclectic 'collection' of digital stuff.”³

Data gathered for a study of college and university information-seeking behaviors, funded by the Institute of Museum and Library Services (IMLS), Ohio State University (OSU), and OCLC, Online Computer Library Center, Inc. (OCLC)⁴ support the findings reported in the University of California-Berkeley study. The project, which began in December 2003 and will end in October 2006, includes four phases of data-gathering - literature reviews and dialogues, sense-making surveys: online and telephone, focus group interviews, and semi-structured observations. The data were collected at forty-four colleges and universities that are located within a 100-mile radius of Columbus, Ohio. The forty-four colleges and universities in the sample include private, public, secular, and non-secular institutions of higher education.

Focus Group Interviews

Eight focus group interviews were conducted in May 2005. The participants of the focus group interviews include twenty-eight undergraduate students, nineteen graduate students, and thirty-one faculty. Several trends emerge from the analysis of the focus group interview data. Collated and ranked by frequency of response, the subjects' responses to each situation revealed marked themes within the four situations and the types of user groups – undergraduate and graduate students and faculty. The focus group interview data indicate a heavy reliance upon Googletm and other web browsers and sources. Traditional library services are used, especially in the more extensive, academic research situations; faculty and graduate students often report the use of library resources. However, these respondents also offer frequent criticisms of traditional library services, report their use of electronic mediation to reach the library services and sources, and suggest modifications and enhancements for these services and systems. A discussion of the analysis and quotations from the three groups of respondents for each of the four situations discussed in the focus group interviews follow.

Situation 1: Think of a time when you had a situation where you needed answers or solutions and you did a quick search and made do with it. You knew there were other

sources but you decided not to use them. Please include sources such as friends, family, professors, colleagues, etc.

While differences between the three types of subject are present, the responses of all groups indicate a greater use of the web and of human information sources than libraries. For the undergraduate subjects Google (including Google study guides) is the most popular source and human sources of information, such as parents (especially fathers) or friends are the second most commonly cited information resource for undergraduates. They also mention electronic databases, specifically Lexis-Nexis, and discussion groups and blogs. This is the only academic group that mentions blogs. Graduate students also rank Google as the first source for quick searches, with human resources (friends and advisors) second, followed by library resources, specifically databases and EBSCO in particular. Faculty respondents place the home resource of a personal library in the most prominent ranking, followed by a variety of web resources, such as Google and Amazon, human resources, and library resources, such as the library homepage, databases and the electronic journal center offered by OhioLink.

Selected Quotations:

Undergraduate Students:

“... the thing about Google is that I generally find the little somethings under the search results and relevance to anything to actually be fairly good... You know, if I use the library catalog, it will give me a list of a thousand things, but there is really no ranking that I can understand.”

“I stay away from the library and the library’s online catalog.”

Graduate Students:

“...you need to know which database with abstracting, indexing... Google, I don't have to know, I go to one spot.”

“I have been going to library Web sites and using their stuff...e.g., EBSCO... Library as portal to online sources ... will also go to university library ... and search (for) articles I need.”

Faculty:

“Google is my first place to find something quickly.”

“[Google] is user friendly... library catalog is not.”

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“Yeah, well, actually I was going to be different and not say Google. I do use Google, but... [I also] use two different library homepages... and I will go into the research databases... do a search there and then I will end [up]... limiting myself to the articles that are available online.”

Situation 2: Have there been times when you did not use a library (university/college, public, etc.) and used other source(s) instead?

In this situation, both undergraduate and graduate students offer a high concentration of responses in three categories: positive comments on the ease of the web as an information source, some positive commentary on library resources (though their use of library resources were very frequently through electronic intervention), and criticism of the physical library. Both groups mention databases and Lexis-Nexis specifically, as well as parents and professors. JSTOR, OhioLink, Amazon, and online encyclopedias are specifically mentioned. Graduate students also discuss their reliance on book stores and personal libraries. Faculty responses express different emphases. They do credit Google, Amazon, and other web resources with ease and cite specific positive features as well as colleagues and experts in the academic community. However, the faculty provide a variety of data which uniquely praise the virtues of the physical library collection, and which consider credibility, authority, and trustworthiness as criteria for judging an information source.

Selected Quotations:

Undergraduate Students:

“The library is a good source if you have several months.”

“Hard to find things in library catalog.”

“Tried [physical] library but had to revert to online library resources.”

“Yeah, I don't step in the library anymore... better to read a 25-page article from JSTOR than 250-page book.”

“Sometimes content can be sacrificed for format.”

Graduate Students:

“Also I just go ask my dad, and he'll tell me how to put in a fence, you know? So why sort through all this material when he'll just tell me”

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“Don’t use university online system. Don’t like it.”

“...first thing I do, is, I go to Google... I don't go into the [library] system unless I have to because there's like 15 logins, you have to get into the research databases. Then it takes you out of that to OhioLink...”

Faculty:

“If I have a student mention a book and I'm not familiar with that book, Amazon.com gives me a brief synopsis, ...reader reviews of the book, so it's a good, interesting first source to go to for that kind of information.”

“...before I came to the library to use the MLA database, I did a Google search and it turns out that there is a professor at Berkeley who keeps a really, really nice and fully updated... page with bibliographic references”

Situation 3: Think of an academic situation where you needed answers or solutions and you did a thorough search. You did not take the first answer that you found. Describe the situation.

This situation called upon respondents to consider not only a greater breadth of sources, but also where they might draw the line to indicate they had obtained enough information. All three types of user respond to this situation with somewhat similar narratives of the more comprehensive search, but with differing criteria for judgment throughout the information-seeking process and the conclusion of their research. Undergraduate subjects still give specific references to Google and Amazon (using Amazon as a precursor to a library catalog) and several mention librarians and the Discovery Channel. This group tends to judge “enough” information either as the point of repetition or by time constraints, page limits, etc. Graduate students mention different types of sources, including interlibrary loan (ILL) and citation searching in conjunction with Google searching, human resources (peers, professors, colleagues, and experts), and the library. These subjects also tend to stop research when they reach page limits and repetitive information and citations, but also consider that it might be impossible to truly exhaust a subject. Faculty, once again, report a much higher level of concern for authority and trustworthiness in evaluating sources and include library journals, databases, and books, as well as web sites ending in .org as sources. They will continue their search

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process until reaching a point of saturation or confirmation from colleagues that all relevant work has been cited.

Selected Quotations:

Undergraduate Students:

“I use OhioLink, but I don't really need to come into a library, as long as I have a computer at home.”

“Discovered Lexis-Nexis, and those articles are brilliant, give lots of information... get so much information going through library and Lexis-Nexis, and articles are ten time's better [in Web].”

“Go to Google... can [pinpoint]... I will find Google articles and then [go] to library and find a couple articles...”

Graduate Students:

“I'm not trust(ing) everything that's on the Internet, but I will print off all the information and I get ideas that I will also go to the university library and search some article I need.”

Faculty:

“So if I have [an] athlete that has low back pain and I have a question about a particular exercise that would be helpful or not helpful or that sort of thing, ... I'd rather get on the phone and talk with a therapist that works with back people all the time, because you can cut right to the chase - ask a specific question and there is some credibility there that is already built in. In talking to this regional expert about how they do things that is directly applicable to what I need to do and it is immediate. It's credible, and it's very specific to what I am looking for.”

“I'm suspicious of people who are publishing on-line because usually the peer review is much less rigorous.”

Situation 4: If you had a magic wand, what would your ideal information systems and services provide? How would you go about using the systems and services? When? Where? How?

In most cases, the respondents' suggestions call for re-envisioning some aspect of the traditional library. The response sets from all three categories of subjects include comments suggesting a change in a library's physical space towards greater openness and

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a “coffee house” environment. Other suggestions for modifications to traditional library services include a universal library card, changes in library catalogs to resemble search engines, book delivery services, and more roving library personnel.

Selected Quotations:

Undergraduate Students:

“Make library catalogs more like search engines or OhioLink.”

“Make a universal library card that would work in all libraries.”

“Space in the library to interact and collaborate - group study areas and areas to spread stuff out.”

Graduate Students:

“More staff, roaming personnel”

“Book delivery from library through campus mail”

“Drive-up pickup or drop off delivery service since parking is a problem.”

“Make the library like a coffee house.”

Faculty:

“Lessen the intimidation factor.”

“Better signage and extra pathfinders”

“Book store environment”

Semi-Structured Observations

The fourth phase of the research project consists of semi-structured observations, which provide an opportunity for users to describe their information practices in their natural environments, such as an office, home, library, or dormitory. This data-gathering technique permits flexibility in question wording and interviewing style, which allows the interviewer to rephrase and adapt the questions based on the respondents’ information-seeking situations and practices. The participants for the semi-structured observations were selected from the undergraduate and graduate students and faculty who participated in the focus group interviews. At each of the eight focus group interviews, two to four potential participants were invited to participate in a one-on-one face-to-face dialogue that would take place at their location of choice – office, home or library. Fifteen subjects were interviewed – five undergraduate students, four graduate students, and six faculty.

The interview guide contained five information-seeking situations that were planned to encourage participants to recreate and share their information-seeking episodes.

Situation 1: Please recall for me step by step, how you went about preparing to write your most recent academic paper, proposal, or class assignment. Tell me what you did first, second and so on. Include all the sources you consulted, if any -- family, friends, professors, colleagues (classmates), and any other sources of input, such as books and journals and databases, if you used them. If possible, list the sources of your steps in the order you consulted them.

Situation 2: Please select a paper, assignment, or scholarly task that is currently on your "to do" list. Walk me through, step by step, how you plan to undertake the task. As you walk me through your plans, help me understand what leads you to plan to consult certain sources and not others.

Situation 3: Please select, once again, a paper, assignment or scholarly task that is on your "to do" list that requires consultation of mainly electronic resources. Then, please walk me through, step by step, how I should go about whatever I need to do—to write this paper, complete this assignment or this scholarly task. As you walk me through, please make me understand why we are consulting certain sources and not others.

Situation 4: Please select a repetitive situation in your life when you have had to find electronic inputs each time the repetitive situation arose? What happened and what explains the need to search each time? Please show me the Web sites you have gone to and when and how you used them -- Why here first? What did you hope to find? Did you find it? Did it help? How?

Situation 5: Now, please take me on a tour of your favorite website where you get answers to questions that interest you. These questions can be of any kind -- your hobbies, for example; or your future plans; or your major interest. Once again, teach me how you use this website and how it helps you. Help me understand what makes this site helpful when others are not. Show me, if you can, examples of non-helpful sites.

More than one-half of the respondents use Google to search for information and more than one-third of the respondents use other search engines and browsers. Several themes emerge from the analysis of the semi-structured observation sessions.

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Respondents use the Internet to familiarize themselves with a topic and because it is convenient to use and provides current information. Libraries are used for research and eight percent of the respondents use electronic databases. However, the respondents do not perceive these databases as “library sources” and express frustration with their inability to locate or access full-text copies of journals and books. They suggest the library provide recommender and discovery services like those available through Amazon. Selected quotations from the semi-structured observations follow.

Selected Comments

Emerging Theme: Internet as a source for familiarization

Graduate student comments

“Without Google it takes away that initial familiarizing yourself with what’s out there. We wouldn’t know what the good keywords were when we go to a more academic database.”

“...but if I want more in-depth information then I would go to the library and find books or whatever.”

Faculty comment

“... I find Google really, really useful as a fast familiarizing tool.”

Emerging Theme: Internet is convenient

Graduate student comment

“I obviously turn to electronics first, then library second...because it’s convenient. But if I want more in-depth info, then I go to the library.”

Emerging Theme: Internet provides current information

Faculty comment

“They’re a bunch of sites I go to everyday. Now none of them are academic. I don’t go to any academic sites everyday.”

Emerging Theme: Library as customizable: Recommender Services

Undergraduate student comments

“Oh people who liked these have also liked this. Maybe you should check this out.”

“It would be more like Amazon than, say, the current library catalog.”

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“I’ll try to find something where I can search inside of a book... I would have descriptions, maybe, you know like, amazon.com has.”

“Well, I have our library [web page] here open and... there’s a lot of information and there’s nowhere to search. This is the opening to the catalog but there’s no box to search.”

Graduate student comment

“Ok. I definitely don’t like going to the library because I think it’s time consuming... They don’t have someone there that can have the journals and books out ready for you.”

Faculty comment

“The library is much less self-contained. It’s now connected to other libraries. So, interlibrary loan, shared electronic resources, Ohiolink, is much more important to us now.”

Conclusion

The preliminary analysis of the focus group interviews and semi-structured observations suggests that college and university information seekers use Google and other web sources and browsers for quick searches and to familiarize themselves with subjects. They still use library resources, such as databases, journals, and books. However, these users would like library catalogs to be easier to use and to provide recommender services like Amazon, which includes reviews, suggestions for sources based upon others’ buying patterns, and the ability to look inside the book online. They also would like library catalogs and systems to provide more links to related sources and more full-text electronic library sources. Although the results of these interviews and observations are not generalizable, they do support the findings of other reported studies⁵ and librarians are aware that the time has come to expand library catalogs.

Several libraries already have begun to provide enhancements to library catalogs that implement discovery and recommender services. The University of Huddersfield’s catalog provides a recommender service based on the titles checked-out by individuals.⁶ “The University of Rochester’s River Campus Libraries is studying how best to develop an open-source online system that can unify access to traditional and digital library

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resources.”⁷ This initiative is an attempt to enable users “to get more out of academic library collections” and to allow librarians to collocate and organize information in ways that are meaningful to these users.⁸ The North Carolina State University (NCSU) library web site enables users to browse the library’s collection and subject categories and provides search boxes for different types of resources, as well as a link to Google Scholar for searching for sources within the NCSU libraries.⁹ The circulation history for items that includes the date of the last circulation and the total number of circulations of an item, as well as the inventory date, is available in the Bergen County Cooperative Library System catalog that serves the users of seventy-three New Jersey public libraries.¹⁰

A prototype was developed in the Research Division of OCLC Online Computer Library Center, Inc. to identify the audience level of works in WorldCat based on the weighted value of holdings by the types of libraries that hold (own) the work. The premise for this service is to assist users in finding sources specific to their information need, i.e., children’s, academic, or research sources.¹¹ Open Worldcat enables users to write reviews for sources to assist users in the selection of materials and to identify the libraries that own the sources based on geographic locations (zip codes) input by the user.¹²

These are only a few of the enhanced library catalogs and discovery and recommender prototypes that are currently available. There is a need for continuous research to identify how and why individuals search for information and resources. These findings can provide the framework for expanding library catalogs and systems, which is an essential task if libraries are to remain relevant in an information environment that is dominated by web browsers and resources.

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The Audience Level prototype can be found here.

12. OCLC Online Computer Library Center, Inc. Open WorldCat.

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Open WorldCat can be found at this site.