Discovery and Fulfillment

Wh+n Steve Potash, the CEO of OverDrive, the e-book and audiobook provider to libraries, talks about making library content more visible on the web, he talks about "content marketing."[1] By that he means that libraries should understand that they have what readers want and they should market it in the most attractive and effective ways possible. For libraries to promote their content, it is useful first to understand what readers value in their offering.

What Readers Want from Libraries

Academic libraries have traditionally described what they offer to their associations and accreditation agencies in terms of counts of books, journals, and more recently, networked resources such as e-books and databases. That's a perspective that describes what the library has, but it doesn't tell us what users want or, more boldly, what content should be most visible on the web. Looking at it from the consumer perspective, it would be interesting to know what library offerings students actually use. To answer this, we can get some hints from a study called "Library Use and Undergraduate Student Outcomes."[2] That study, from 2013, used as one of its inputs the services that undergraduates actually used. This analysis was in the context of the effort to understand the relationship between library usage and academic achievement—a topic of interest to academic librarians. If we take this input as a measure of what academic library readers value, the rankings appear in table 3.1.

According to this analysis, the items of highest interest to undergraduate students are articles, and specifically articles in electronic form. The two most used library services in this study were databases that contain individual articles and articles found directly

Table 3.1. Ranking of usage of thirteen library access points by first-time, first-year undergraduate students at the University of Minnesota during the Fall 2011 semester

Service or Offering	Rank in Number of Uses
Databases of individual articles	1
Electronic journals directly	2
Workstations: PCs & laptops	3
Book loans	4
Library website	5
Bibliographic instruction course, pt. 1	6
E-books	7
Course-integrated instruction	8
Bibliographic instruction course, pt. 2	9
Reference questions	10
Workshop in library	11
Book loan from other library (ILL)	12
Peer conference	13

Source: Krista Soria, Jan Fransen, and Shane Nackerud, "Library Use and Undergraduate Student Outcomes: New Evidence for Students' Retention and Academic Success," *portal: Libraries and the Academy* 13, no. 2 (April 2013): 147–64, http://dx.doi.org/10.1353/pla.2013.0010.

in electronic journals paid for by the library. There is also significant interest in using library computers, borrowing books, and information on the library website. The detailed findings show that interest drops off significantly after book loans.

From these numbers we can generalize that students who use academic libraries are primarily interested in online articles, then in using the library's computing facilities, then in borrowing books. There is interest in other library services such as bibliographic instruction and reference questions, but those are of secondary interest to library users. Recalling Steve

Potash's emphasis on content marketing when considering web visibility, it is useful to know what this important user group values in the library's content.

There is similarly useful information about public libraries that provides answers to the question, "What do users want from public libraries?"As with academic libraries, the tradition is for public libraries to describe what they have and what they can count—these are the trailing indicators of public library offerings: counts of books, checkouts, and gate counts. But a more recent trend among public librarians is to focus on measuring value and impact of their services. In the context of understanding demand and predicting web search behavior, we can look at recent surveys to gauge value in public library services.

A Pew Internet study published in 2013 surveyed people who had used public libraries and asked them to rank what offerings were important to them.[3] The percentages in table 3.2 describe the offerings that respondents rated with the highest rating: *Very Important.*

The mix of collection and human services is far greater for public libraries than it is for academic libraries. Books and media still draw the largest proportion of interest, but the wide variety of programs and personal services are of enormous importance and a significant component of why people use a public library. Understanding the high value of books and media could be a useful guide in making decisions about which content to make more visible on the web. Similarly, public libraries have an opportunity to broadcast the expertise of their public services staff and the useful role of "library as a quiet, safe place" for their communities. All of this is useful input in considering which content to market on the web.

How People Discover What Is in the Library

At this point librarians are exhausted by being told that the library catalog is the last place users look to discover things. Countless studies in the past ten years have told them that when people begin their search on a topic, they start with a search engine. OCLC's 2010 report on public perceptions of libraries captured the essence of all of the studies: "[By 2005] the majority of online information consumers (82%) began their searches for information on a search engine, a source they found roughly as trustworthy as a library. One

Table 3.2. Percentage of people ages 16+ who said that these services were "Very Important" to them and their families

Service or Offering	Rated Very Important
Books & media	54%
Librarian assistance	44%
Having a quiet, safe place	51%
Research resources	47%
Programs for youth	45%
Internet access, computers, printers	33%
Programs for adults	28%
Help applying for government services	29%
Help finding a job	30%

Source: Kathryn Zickuhr, Lee Rainie, Kristen Purcell, and Maeve Duggan, *How Americans Value Public Libraries in Their Communities* (Washington, DC: Pew Research Center), December 11, 2013, 2, http://libraries.pewinternet.org/2013/12/11/libraries-in-communities.

percent (1%) began their searches on a library web site."[4]

Variations on this finding have been reported over the years and all with a consistent theme: when people want to know more about a topic they start on the web.

However, those statistics speak only to the discovery process: the process that readers and researchers use to find things that match their topic. Whether they are looking for scholarly articles or topics of personal interest, search engines are a clear leader among choices for discovery. However, how people learn about things that are useful to their needs has many dimensions. Merrilee Proffitt and her colleagues in OCLC Research describe it simply: "Users increasingly have choices outside the library, and those choices are both networked and social."[5]

Often readers discover things before they need them through media and peer networks. Scholars are inclined to share their new publications with colleagues in their disciplines. Advertising has a role as well; publishers have very sophisticated methods of pushing notices of their new titles and the tables of contents of newly published journal issues to scholars. Even Amazon has a role with its Alert Me service to tell readers when a new title is available for purchase. Amazon's recommender services use its vast store of transaction history to recommend related titles.

But during the process of discovery where a user has a topic in mind, the user will start in a search engine or a specialized database for a particular scholarly discipline. The specialized databases range from those with a hundred years of history behind them like the Chemical Abstracts database SciFinder to ultra-specialized resources like Current Protocols in Nucleic Acid Chemistry. Many readers will develop a familiarity with databases of articles on business or

cultural topics and prefer them as a starting point depending on their need.

Discovery of things that match a reader's needs is multifaceted and individualized, but the generalization remains true: in most cases it does not begin with the library catalog.

How People Get Things from the Library

That brings us to the concept of fulfillment. Fulfillment is the process of acquiring the thing that matches the reader's need. Given what we know about academic libraries, the challenge for readers there is to get the electronic article they have discovered. For public library readers it is getting a book or media that they have discovered elsewhere. For articles, the question is simply does the library have subscription access to this article? For books and media, the question is does the library have this item on the shelf?

So where do readers turn to determine availability? It depends on where they start. For articles, availability is determined by the discovery system's knowledge of the library's subscriptions. On the general web, in Google Search for example, the system will have no knowledge of the library's subscriptions, so the reader will either turn to a library system, use a pay-per-view option, or give up and find another source. Scholars with a well-defined peer network might go directly to the article's author to acquire a prepublication or published version of the article.

There is a lesser-used, but still important variation on Google Search called Google Scholar—it contains citations and an option for users to declare their institutional affiliation. When the user is starting from a system that contains only citations such as Google Scholar or something hand-crafted like a list of articles required for a course, then there are specialized tools that the library can put in place to check the library's subscriptions and provide the answer to the question upon clicking a button. When the user is in a database hosted by an aggregator or publisher and the library subscribes to the title, then the link to the full text of the article is provided immediately.

For finding the availability of books and media, the local library catalog is the most reliable system for accurate statements of availability in all library types. Many libraries use discovery systems that combine their local catalog content and selected article content, but even these systems refer to the local system in real time to determine the number of copies and disposition of the item—to really know if an item is available for lending, the local system is the "system of record."

Librarians have studied the logs of their local catalogs for many years to determine how well their search menus are configured. They have also used those logs to determine which indexes are used, how often searchers find something that matches their search, which indexes are most popular for searching, and even if there are gaps in their collections. The general trend of those studies is that known item searching is the most popular kind of search in local catalogs. Searchers tend to have a title or author in mind, and they will search the catalog to determine what the library has. This supports the generalization that people discover things outside of the catalog in many ways and refer to the catalog for fulfillment—to determine if they can acquire the thing they need. They may ask the questions, "Can I get this thing from the library? Does it have a copy available?" For articles, they use the system they are in to determine availability. If that fails them, they will use other systems or give up and find another resource that matches their need.

The gulf between discovery and fulfillment illustrates the fractured nature of the visibility of library collections today. The gulf introduces risk—risk that the reader will not be aware of the full range of fulfillment options provided by the library in local lending and engaging with the global lending networks that have been successful for decades. Clearly understanding that risk adds to the stakes in the question, "Can libraries improve their visibility on the web?"

It is clear that for books and media, the library catalog is a core asset in declaring what a library has. Given that, it is worth some investigation of the evolution of library catalogs and their historical role in telling the world what a library offers.

Notes

1. Steve Potash (Chief Executive Officer, OverDrive, Inc.), interviewed by Ted Fons by telephone, 16 November, 2015.
2. Krista Soria, Jan Fransen, and Shane Nackerud, "Library Use and Undergraduate Student Outcomes: New Evidence for Students' Retention and Academic Success," *portal: Libraries and the Academy* 13, no. 2 (April 2013): 147–64, http://dx.doi.org/10.1353/pla.2013.0010.
3. Kathryn Zickuhr, Lee Rainie, Kristen Purcell, and Maeve Duggan, *How Americans Value Public Libraries in Their Communities* (Washington, DC: Pew Research Center, December 11, 2013), http://libraries.pewinternet.org/2013/12/11/libraries-in-communities.
4. OCLC, *Perceptions of Libraries, 2010: Context and Community* (Dublin, OH: OCLC, 2011), 4, www.oclc.org/reports/2010perceptions.en.html.
5. Merrilee Proffitt, James Michalko, and Melissa Renspie, *Shaping the Library to the Life of the User: Adapting, Empowering, Partnering, Engaging* (Dublin, OH: OCLC, 2015), 5, www.oclc.org/research/publications/2015/oclcresearch-shaping-library-to-life-of-user-2015.html.