

# Next-Generation Service in the Library

## Abstract

*The past decade has been witness to dramatic evolutions in library service as patron expectations and the research process have changed. Libraries have found themselves competing with everyday content services like Google and Wikipedia, cafés such as Starbucks and Barnes and Noble, and home delivery and online streaming services such as Netflix. To stay in this information access market, libraries are shifting their services to better meet the demands of the new generation of user. Libraries are changing their look, changing their level of service, and partnering with the competition—all to continue to be a part of the research process and provide content to patrons when and where they expect it. This evolution is necessary to keep the library relevant to the researcher. This chapter will illustrate these new services that libraries are offering and explore what about them is meeting the demand of library patrons.*

With the explosion of powerful open-web search engines such as Google and Yahoo! and the introduction in every town of grocery store-style bookstores such as Barnes and Noble, libraries have entered a highly competitive marketplace for providing information access—so competitive that libraries are quickly losing their market share. The web, now so pervasive in industrialized nations, has become a starting place for research. It has become so convenient that the value of the library has diminished in the researcher's eye. A report by ITHAKA, Ithaka's 2006 Studies of Key Stakeholders in the Digital Transformation in Higher Education, published in August 2008, showed a decline in the perceived value of the library since the early part of the 2000s.<sup>1</sup> Conversely, highly convenient and accessible resources are seeing tremendous usage—the English version of Wikipedia

serviced an average of 7.139 billion page views per month in 2010.<sup>2</sup> With resources such as these that are becoming more accurate and relevant than their print-based alternatives, not to mention freely available 24/7 from the comfort of one's home, the library has been losing its relevance in the research process. On top of this decline, there has been a global recession that started in 2007 and is still continuing to impact the economy today, causing many libraries to face dramatic budget cuts and staff layoffs. In my hometown of Philadelphia, the city was almost forced to close all fifty-three branch libraries in 2009 due to a large budget deficit.<sup>3</sup> This closure would have made an incredible impact in the various neighborhoods that relied on their local library for after-school activities and a safe and comfortable place to work and socialize. Budget declines, declining usage, and declining value have caused libraries to rethink their goals and the services provided to their communities.

In an academic library, the majority of patrons are of the Millennial Generation—those born between 1982 and 1995. These Millennials have a few attributes that directly correlate to many changes that libraries have been going through. Over the past decade, academic libraries have introduced self-service kiosks and checkout counters, single-point-of-access information stations, cafés, and gaming facilities (see figure 4), to name just a few of the physical transformations—all to improve the library's relevance to this generation. Millennials are strongly inclined to be completely self-sufficient and highly confident in themselves, and therefore they tend to not want to ask for assistance. They are accustomed to using technology in everyday life, and research is commonly attacked from the same angle as finding out what movie to go to on a Friday night. With a quick flick of a finger on the iPhone, they



**Figure 4**  
Self-checkout service point in a library.

can find out what movies are playing at the closest theater, learn which ones are good, and even watch the trailers. This instant gratification and extreme simplicity are what this generation has grown up with and is accustomed to. This is what they expect.

In the earlier half of the 2000s, federated search became a viable solution in the library industry. As online databases became more pervasive and as focus shifted from print to electronic resources, more and more content was found in electronic silos, and the need to make these collections highly visible and easily discoverable was clear. Federated search was intended to provide a convenient interface to the confusing environment that libraries had been constructing with the evolution of content silos. A stepping-stone technology in libraries, federated search was initially seen as the answer to the discoverability of the growing electronic collections. A typical federated search product uses connectors, small pieces of software that translate the search results from the database it is defined to communicate with into a common format, enabling the federated search tool to compile the search results and blend them into a single results set. However, this process has many limitations that may have been overlooked due to the “wow” factor of searching multiple databases at once. A typical database will return only a small number of search results for each search request performed by a federated search tool. Generally this number is around thirty records or so. This is done to control the impact on the database itself, preventing an overload of searches from these broadcasts. Due to the lack of complete data sets returned from each database, federated search tools can present the user with only a limited results set, meaning that the more interesting documents may be hidden from the user. Additionally, this approach results in poor

relevancy of the search results and inability to provide accurate faceted browsing capabilities. Relevancy algorithms take many factors into consideration when calculating the order of the results, and this simply cannot be done to the quality that researchers expect when the tool is analyzing only a small fraction of the entire results set. Faceted navigation, where the search tool pulls out metadata from the records in the results set to allow the user to narrow searches, is also greatly hindered by low visibility into the complete results set. Moreover, the connectors can fail at any time—a database changes its response syntax, the system is down for maintenance, the interface responsible for answering federated search requests moves to a new location—any of these events and many others can simply render the results useless or prevent the results from getting to the user. Federated search also suffers from a lack of scalability in many cases. Federated search was initially designed and developed to combine search results from disparate collections—a common practice in the corporate sector when searching a company’s collection of multiple databases. Generally this required a handful of connections—between ten and fifty. In an academic library, the numbers go beyond the original scope of federated search—such libraries may see many hundreds of databases that are capable of responding to a federated search request. This lack of scalability, poor user experience, and lack of accuracy led this technology to be a stopgap rather than a long-term solution.

Through years of using federated search and begging it to do more, libraries have become more prepared for a future that allows the researcher to discover content from different databases in a single session. Libraries began thinking about how to better organize the library’s website—creating an inviting environment that places the emphasis on discovering resources.

In conjunction with the demand to make the library more relevant to its audience, library administrators are also finding themselves working to prove the library’s value to the budget makers and administrators of its governing body—a university administration office or local or state government. To do so, libraries have been finding new and innovative ways to show their value: increasing resource usage is one way, but so is providing tools and services that have a larger impact and can help show that the library is being innovative. We have seen libraries launching digital collections that provide access to rare and historic collections that few may even know exist, sending books to Google and the Internet Archive for mass digitization, and providing completely new services that cater to the new generation of users.

However, many libraries have shown that by being able to compete with highly accessible resources like Wikipedia and Google, they can make a significant impact in battling the decline discussed earlier.



**Figure 5**  
Students gaming at NCSU Libraries Learning Commons.

We have seen libraries expanding their roles in their communities for quite some time now. Many libraries have been hosting cultural library events to position themselves as a hub in the community. Many academic libraries have been buying into the “learning café” model by installing coffee bars and restaurants in the library, such as the Starbucks at Wake Forest University’s Z. Smith Reynolds Library, which opened on September 30, 2008, providing loud study and work space, nonstructured work spaces with cushy seating, group study areas with technology support, and much more.<sup>4</sup> Another popular initiative over the past few years has been providing video game competitions and dedicated gaming areas within the library (see figure 5). Even more customized libraries in Rhode Island, such as the Coventry Public Library, are lending

fishing equipment as part of their efforts to better meet the needs of the local population.<sup>5</sup> While these initiatives all help attract patrons to the building, similar efforts are needed to drive patrons to the library website. More compelling and supportive functionality for research will help to increase the visibility and usage of the libraries website, which is the front door for the library’s electronic resources—an essential means to subsidize this growing budget line.

## Notes

1. Ross Housewright and Roger Schonfeld, *Ithaka’s 2006 Studies of Key Stakeholders in the Digital Transformation in Higher Education* (New York: ITHAKA, 2008).
2. Erik Zachte, “Page Views for Wikipedia, Non-mobile, Normalized,” Wikistats: Wikimedia Statistics website, <http://stats.wikimedia.org/EN/TablesPageViewsMonthly.htm> (accessed May 19, 2011).
3. Lisa Chinn, “Sign of the Times: Philadelphia’s Public Library to Close,” *World Newser* (blog), ABC News website, Sept. 14, 2009, <http://blogs.abcnews.com/theworldnewser/2009/09/sign-of-the-times-philadelphias-public-library-to-close.html>.
4. Cheryl Walker, “Starbucks opens Sept. 22, ribbon-cutting ceremony Sept. 30,” Wake Forest University website, September 19, 2008, <http://wfu.edu/news/release/2008.09.19.s.php>.
5. Lisa Vernon-Sparks, “Check It Out: Libraries That Will Lend You Fishing Gear,” Providence Journal website, May 13, 2008, [http://www.projo.com/news/content/WB\\_fish\\_borrowing\\_05-13-08\\_JL9TOG6\\_v39.38e8d8c.html](http://www.projo.com/news/content/WB_fish_borrowing_05-13-08_JL9TOG6_v39.38e8d8c.html).