Chapter 20

Discovery in a Hurry: Fast Transitions from Federated Search to Article Discovery

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ABSTRACT

F.D. Bluford Library is a mid-sized library serving over 10,000 undergraduate and graduate students. In 2010, the Library began to transition from federated search technology to Web-scale discovery to meet user expectations. Users expected to have quick access to the library resources. The promise of discovery was an idealized solution for all stakeholders. Discovery platform vendors touted quick access to multiple resources using centralized indexing or highly-efficient database connectors. In the selection process, however, it became evident that there are no easy choices. Each platform currently on the market had advantages and disadvantages. The library’s task force therefore defined priorities and environmental factors to select the optimum solution while meeting an aggressive deadline for selection. This chapter discusses the particular needs of mid-size libraries and makes suggestions for an evaluation process.

INTRODUCTION

The fourth law of Ranganathan’s Five Laws of Library Science states “[s]ave the time of the reader” (Ranganathan, 1957, p. 287). Librarians continue to adapt this law to new technological environments and develop new approaches. Michael Gorman’s addition to Ranganathan’s five laws in Future Libraries: Dreams, Madness and Realities is an appropriate example of this – “use technology intelligently to enhance service.” (Crawford & Gorman, 1995, p. 7-8). Libraries have historically used technologies as they became available to facilitate timely discovery of
information. These tools initially were print-based, such as card catalogs and print indexes, but have evolved to adapt to new technologies (Vaughan, 2011). The promise of contemporary Internet technologies, to allow libraries to provide the right information to the right person at the right time without the time limitations and physical barriers of traditional print media, is mired in the reality of our society’s current struggle over intellectual content ownership and distribution in a virtual environment. Content owners store information in discrete repositories, metaphorically known as “silos,” with various limits to access. Discovery platforms are the latest promising attempt to balance the rights of content owners to control their information with the needs of librarians, students, faculty and researchers needing to readily find information across those multiple silos (Breeding, 2010; Breeding, 2011a).

BACKGROUND

Literature Review

Single-box searching--the ideal of being able to type a search string into one single search box to retrieve results from all relevant sources --is not new. In the early 2000s, federated search promised to simplify the search process for users by offering a single search box that searched across multiple database platforms at once (Tennant, 2003). The single-box interface that searchers prefer has consistently presented both technological and user behavior concerns (Boyd, Hampton, Morrison, Pugh, & Cervone, 2006). While academic library users enjoy the simplicity of the interface, they also expect familiar, easy usability; advanced users may also require fast options to refine and revisit searches beyond what federated search tools have offered (Gibson, Goddard, & Gordon, 2009). The federated search technology has also proven to have some limitations: the technology is slow, search results are not comprehensive, and users perceive them to be poorly organized and not always relevant (Korah & Cassidy, 2010; Luther & Kelly, 2011; Williams, Bonnell, & Stoffel, 2009). Despite these issues, single-box searching also offers advantages both in user satisfaction and Web site design flexibility, enabling libraries to offer the most user-friendly interface designs and generally to boost user satisfaction (Caswell & Wynstra, 2010).

Almost a decade after the federated search debut, libraries may now have available the best generalized information retrieval platform yet, the discovery platform (Vaughan, 2011). Older federated tools often lack integration with Library 2.0 tools, interaction with personal information management tools, and “next generation” options such as faceting and advanced relevancy options (Gibson, Goddard, & Gordon, 2009). Article discovery on the “Web-scale” offers cross-platform article retrieval much faster than federated search typically does, incorporating a simple interface and many of the advanced information seeking tools that users desire (Gross & Sheridan, 2011; Keene, 2011). These discovery tools should be a large step forward for academic searchers. Discovery tools’ breadth of options offer promise for smaller and mid-sized libraries which need flexible and varied solutions.

Mid-sized libraries offer their own unique technological issues. Faculty expectations at mid-sized institutions are robust (Weber & Flatley, 2006) as are student needs, but these libraries lack the systems development resources and personnel of larger institutions. Fiscal and personnel realities affect a variety of systems projects in smaller and medium-sized libraries. Mid-sized libraries may have issues in systems projects such as electronic resource management (Condic, 2008; Mileczarski & Garofalo, 2011) and institutional repository development (Oguz & Davis, 2011). Many Webmasters at mid-sized academic libraries do not describe Web development as their primary task and are rarely highly experienced in advanced programming languages (Kneip, 2007). A Web/
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