Smarter Libraries through Technology:

Moving Toward the Reintegration of Discovery

By Marshall Breeding

In the current phase of library technology, it is common for libraries to implement discovery systems in a manner loosely coupled with core automation systems. We've evolved away from a time where the online catalog module of the integrated library system could stand as the primary search tool, at least for those with large and varied collections. An increasing number of libraries have implemented discovery interfaces more loosely tied to the core ILS. The discovery interface may or may not be produced by the same company as the ILS, and an interesting set of dynamics has emerged among the organizations offering these products, with the library often carrying the burden of making sure that everything works together smoothly.

From a technology perspective, discovery interfaces interact with the ILS through a fairly well-established set of protocols. Data from the ILS are exported and re-indexed in the discovery system. Behind-the-scenes API's and other mechanisms allow the discovery interface to interrogate the ILS regarding current status and availability of any given item as needed during a user session. In most cases, it's also possible for patrons to place holds or make other requests through the discovery system that that are then reflected in their account on the ILS. In 2008, a workgroup of the Digital Library Federation developed a set of protocols and practices called the Integrated Library System – Discovery Interface, or ILS-DI, to help regularize the interactions between these two types of products.

The scenario of mixing and matching different ILS products and discovery interfaces has become quite common. Libraries can generally expect that any of the major discovery products will work with their current ILS. I've developed a resource that displays a matrix that shows which ILS products have been implemented with each of the major open source and commercial discovery interfaces (See: http://www.librarytechnology.org/discovery.pl). This resource reveals some interesting patterns. In the cases where the producer of an ILS also offers a discovery interface, libraries tend to stay within the fold. Encore, for example, sees use mostly by libraries using Millennium, even though it has been designed to operate independently and has been used by a few libraries operating other ILS products. In some cases, the discovery product has not been promoted outside the company's own customer base: examples include LS2 PAC used only with The Library Corporation's own Carl.X and Library.Solution automation systems and Enterprise. To this point, these have been marketed only to those running SirsiDynix's Symphony or Horizon. Ex Libris' Primo has been adopted by many of its own Aleph and Voyager sites, but the company has also seen considerable success in placing Primo in the libraries of its competitors.

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Discovery Systems implemented in conjunction with the most diverse set of ILS products are those produced as open source projects, such as VuFind and Blacklight, or those from companies that do not offer an automation system, such as BiblioCommons, or those that came into the library automation space after the discovery product was well established. The latter category would include AquaBrowser and Summon, successful as discovery products long before Serials Solutions announced its Web-scale Management Solution last June, or WorldCat Local, which was on the scene for many years before OCLC came out with its Web-scale Management Services.

As the next phase of library automation plays out, I expect to see a shift away from discovery systems decoupled from back-end automation systems back toward more tightly integrated product suites. Organizations offering both next-generation automation products and discovery services will obviously design those two types of products to work together optimally in a way that will be exceedingly difficult to accomplish with third-party products.

We can expect most libraries that implement Ex Libris' new generation Alma platform, for example, to use it in conjunction with the company's Primo and Primo Central discovery products. While Ex Libris emphasizes that they will offer all the API's needed to operate other discovery products with Alma, it will be an integration that libraries would have to accomplish on their own. But by using Primo and Alma together, the interoperability will be built-in and fully supported.

Likewise, OCLC's Web-scale Management Services will be designed specifically to use WorldCat Local as its end-user discovery interface. Libraries won't be locked into using both together,

but the affinity will be quite strong. The likely result will be that only those with compelling reasons to use other discovery products would use something other than WorldCat Local with WMS.

As Serials Solutions launches its yet un-named "Web-scale management solution" it seems clear that the product will be designed to operate primarily with Summon as an end-user discovery interface and in conjunction with the company's 360 suite of products. Other combinations will be possible, but they might be going against the grain.

In this next business cycle, we see several different strategies in play, but with the common goal of prodding libraries toward bundled suites of products offered by a single provider. Ex Libris is working hard to place Primo in libraries beyond its own customer base of Voyager and Aleph sites. Such a placement is a success in itself, given that these discovery products represent significant sources of revenue. But it's also an opportunity to gain additional business in more strategic products in the future

as those libraries will eventually need to move to one of the next-generation systems. Having a foot through the doorway can be a competitive advantage. Serials Solutions likewise seems positioned to leverage its success with Summon and its other products as it enters the next-generation library automation market. If it meets its goal of allowing libraries to unplug their legacy ILS as they implement its Web-scale management solution, they will then become that library's core technology provider with a tightly integrated bundle of products.

If these patterns do indeed prevail, over the course of the next decade we may well see at least a partial return to a scenario where a library receives most of its automation support from a single company in the form of a matched set or a bundled suite of products. Such an outcome will have both positive and negative aspects. Some might be concerned that libraries would be vulnerable to a single vendor or organization. On the other hand, dealing with a simplified number of technology suppliers

simplifies the overhead involved with maintaining business relationships with multiple companies. When the same organization provides both the discovery and the automation environment, it bears more of the responsibility for integration and interoperability. I also anticipate that this more tightly bundled arrangement may result in better functionality. Even in the best of circumstances, connecting disparate components through the ILS-DI can be somewhat of an inefficient approach. Having automation systems and discovery environments specifically designed to work together will hopefully result in more refined functionality, especially in the area of patron services.

I do expect that some libraries will continue the mix-and-match approach. Libraries have a strong affinity toward open source products, and at least some will continue to use interfaces such as VuFind and Blacklight with their current and even next-generation library automation systems. In the public library arena, companies such as BiblioCommons that offer compelling discovery products seem to steady on a course of working with many different existing automation systems, but not necessarily moving into the territory of offering one of their own.

This current era of decoupled discovery has been enormously important in the evolution of patron-facing interfaces and services. We've seen the clunky online catalogs replaced by modern Web-based interfaces that compare favorably to what patrons see elsewhere on the Web, offering more powerful search and retrieval capabilities, broader reach into the full scope of library collections, and more aesthetically appealing interface designs. The expansion of search in recent years through large consolidated indexes of scholarly content at the article level represents a major leap forward, especially for academic and research libraries. With these advancements well underway, it's now time for the back-end automation systems to catch up, moving forward from an orientation focused on physical materials to library services platforms that manage all the different formats of materials that comprise library collections. The legacy ILS products existed (at best) in a loosely coupled relationship with the new generation of discovery services. Once the new round of library services platforms becomes established, the circle can become completed, allowing libraries to benefit from a newly re-integrated suite of products, hopefully with the potential to more efficiently support their internal operations and Web-delivered services.

Progress in the New Generation of Library Service Platforms

The major players in the library automation industry have made public their plans regarding next generation product strategies. Alma from Ex Libris, Web-Scale Management Services from OCLC, Sierra from Innovative Interfaces, and Web-scale management solution from Serials Solutions are all in competition for development, testing, and deployment.

Sierra

Innovative interfaces announced the development of its Sierra services platform, initially announced in April 2011. Sierra will bring the existing functionality of Millennium into a new technology platform based on characteristics including service-oriented architecture, an open source PostgreSQL database, and a full complement of APIs. Details regarding Innovative's vision for Sierra were covered in the May 2011 issue of *SLN*.

While development is underway, the company is working hard to line up libraries interested in making commitments to become early adopters of this new system. In July,

the company announced that the first round of contracts for Sierra had been signed, including 25 academic and public libraries. An additional round of libraries was announced in September, bringing the total number of those engaged to be early adopters to 75 library organizations, representing over 300 individual libraries. The large number of libraries willing to sign contracts for this project at this early stage reflects a very strong level of confidence in the potential of Sierra as the Innovative's next generation technology platform.

While most of the libraries opting for Sierra at this point already lie within the fold of Millennium sites, at least one, Utah State University, will be first-time Innovative customers. Utah State has signed to replace their current SirsiDynix Symphony ILS with Sierra and Encore.

Innovative reports that the initial beta implementations are scheduled to begin toward the end of 2011.

Alma

Ex Libris announced that it delivered the fourth and penultimate partner release of Alma in September 2011. This release

includes enhancements in fulfillment capabilities, advanced integration with Primo, enhancements to the resource editor, the tool for inventory management and cataloging, as well as other features and improvements based on prior feedback from the development partner libraries.

The current slate of libraries engaged with Ex Libris as development partners includes Purdue University, Princeton University, Boston College, K.U. Leuven and the LIBIS network. Ex Libris also continues to sign libraries to commit as early adopters of Alma; recently the University of York joined this group.

As a cloud-based system that will involve knowledgebase component shared through its Community Zone concept, issues surrounding the content components of Alma will be critical. In June 2011, Ex Libris formed an Expert Advisory Group composed of a diverse group of individuals associated with leading national and international organizations with involvement in metadata issues. According to an announcement, this group will "provide guidance to Ex Libris on policies, standards, and procedures that should be used in the governance and stewardship of metadata records that reside in the Community Zone." For the new cloud-based systems, content issues will present their own set of challenges along with those associated with software development.

Ex Libris expects to deliver the fifth partner release in November 2011, filling out the functionality that will comprise the initial general release of Alma, expected to be made available in early 2012.

OCLC Web-scale Management Services

Among the slate of new-generation automation products, OCLC's Web-scale management service was the first to be put into production and to see general release. As previously reported, thirty-two libraries were using WMS in production by July 1, 2011. In early October 2011 Ogeechee Technical College in Statesboro, GA went live with the product, displacing Library.Solution from The Library Corporation. Hope International University went live with WMS in June 2011, migrating from an Ex Libris Voyager ILS. Other libraries that OCLC has publicly announced as having signed on to implement WMS include Tilburg the University of New Brunswick in Canada, Spring Hill College in Alabama, and Mohave Community College in Arizona.

In a story in the October 2010 issue of *SLN*, we reported that the University of Tennessee at Chattanooga anticipated being the first library to implement WMS. As of October 2011, the UTC library has not yet put the system into full production, due primarily to internal considerations.

Serials Solutions Web-scale Management Solution

Since making its major announcement of its intentions to develop a new Web-scale Management Solution, Serials Solutions has not issued additional progress updates on its development or adoption. Stay tuned for future information regarding this product.

—*Marshall Breeding*

Management Shuffle at SirsiDynix

SirsiDynix announced the appointment of Bill Davison as its new Chief Executive Officer, with current CEO Matt Hawkins stepping down to pursue other opportunities within Vista Equity Partners, the private equity firm that owns the company. Davison initially joined Dynix Corporation in 2003 as executive vice president for sales and marketing; he was promoted to Chief Sales Officer for Dynix in June 2004. In March 2008 Davidson exited SirsiDynix. From February 2009 until his return to SirsiDynix in December 2010, Davison served as Chief Operating Officer for Alpha Bay, a company founded and led by former Dynix CEO Jack Blount. Davidson has since held the position of Chief Operating Officer at SirsiDynix, taking responsibilities for much of the daily operations of the company. With this move, effective October 3, 2011, Davison assumes full responsibility for the company.

A number of other changes have taken place in recent months that taken together represent a fairly broad change in the top tiers of management in the company, within a context of strategic continuity. None of these changes flag concern that there will be abrupt upheaval, but possibly some reinvigoration toward the goals that the company has had in strengthening its customer support capacity and in developing new and enhancing existing products. Davison reported that SirsiDynix will expand its development efforts, with plans in place to hire ten to fifteen new developers in the coming months. This new expansion in development capacity will help the company complete its roadmap to revamp its technology products. Though details have not yet been revealed, SirsiDynix will be creating new functionality related to managing electronic content, with a context that blends it with existing func-

tionality in Symphony centered on traditional resources.

Talin Bingham, who joined the company in April 2006 as the Senior Vice President of Technology and soon appointed as Chief Technology Officer, now shifts to a new role as the company's Chief Architect and will report directly to Davison. In August 2011, the company hired Sheridan Richey as its new Vice President of Product Development. Sheridan comes to Sirsi-Dynix with a background in the development AdvancedMD, a cloud-based platform in support of the operation medical practices, including the management of medical records and financial transactions. AdvancedMD, based in Salt Lake City Utah, was recently sold to Automatic Data Processing by the private equity firm Francisco Partners. (Francisco Partners owned Ex Libris from 2006 – 2008.) Richey takes the lead in product development, bringing to that role a strong background and perspective in creating products designed to be delivered through cloud technologies.

Mike Zackrison joined SirsiDynix in July 2011 as the company's Vice President for Product Management. Immediately prior to joining SirsiDynix Zackrison was involved with the open source Kuali Student project as lead project manager, on behalf of the University of Southern California.

Ranny Lacanienta recently joined SirsiDynix as director of the team responsible for the company's integrated library systems, coming to the company from Brigham Young University where he was deeply involved with that institution's implementation of Symphony and was an active member of the academic library user community.

This combination of appointments bring new individuals into the company with backgrounds and perspectives that may be positive assets as the company moves into its next chapter: Richey in the area of cloud computing, Zackrison with academic and enterprise-level software development, and Lacanienta with a strong academic library background.

Scott Wheelhouse has been promoted to Senior Vice President for Operations, filling in part of the responsibilities formerly held by Davison in his role as Chief Operating Officer. At this point, SirsiDynix is not naming a new Chief Operating Officer, the role vacated by Davison.

Other senior management positions remain intact: John Gardiner as Chief Financial Officer, Berit Nelson as Vice President for Library Relations, Brad Whittle as Vice President for Global Sales, and Tim Hyde as Vice President for Professional Services. Gary Rautenstrauch, SirsiDynix CEO from June 2007 through December 2010, continues his involvement with the company as Executive Chairman, working primarily with strategic issues involving business development and relationships with external partners. Hawkins will continue an ongoing involvement with SirsiDynix at the board level and in the short term in an advisory capacity.

—Marshall Breeding

A New CEO for EnvisionWare

EnvisionWare, a company involved in providing a variety of self-service and other automation tools to libraries, announced changes to its senior management structure. Mike Monk, currently the Chairman of the company and its Vice President, has become its Chief Executive Officer. Scott Fothergill has been promoted to Chief Operating Officer for EnvisionWare and joins the company's board of directors. Incumbent CEO Rob Walsh will exit the company and will lead Excalibur Systems, a consulting firm providing contract programming and other consulting services. Excalibur Systems will have an ongoing relationship with EnvisionWare in support of product development and research.

In September 2011, EnvisionWare announced that it has been selected to by the King County Library System in Washington State to implement its computer and print management products in its 46 library facilities. KCLS, a

large urban library system in the county surrounding Seattle, ranks as the second busiest library system in the United States, circulating over 22.4 million items in 2010.

These changes come on the heels of the August 2011 settlement of the patent infringement lawsuit filed in June 2009 against the company by competitor 3M. EnvisionWare was ultimately successful in defending itself against this action with the patents in question ultimately deemed invalid.

—Marshall Breeding

Library Technology News in Brief

Excerpted from Press Releases Posted on Marshall Breeding's Website (http://www.librarytechnology.org/)

IMLS issues grant for further collaborative study of Virtual Reference Services

DUBLIN, Ohio October 7, 2011. The Institute of Museum and Library Services (IMLS), a federal agency, has awarded a National Leadership Grant for a collaborative research project between OCLC Research and the Rutgers University School of Communication and Information (SC&I) to investigate library-based Virtual Reference Services (VRS).

OCLC Senior Research Scientist Lynn Silipigni Connaway will join Rutgers University SC&I faculty members Marie L. Radford and Chirag Shah as Co-Principal Investigators in a study of new models that permit more collaborative and sustainable delivery of virtual reference services. The $250,000 National Leadership Grant recently announced by IMLS will support the project for two years beginning this month. The grant, which was made to Rutgers, represents about 45 percent of overall funding for the project, with the remainder coming from Rutgers and OCLC.

Over the past decade, many libraries successfully introduced live chat and instant messaging reference services to supplement traditional face-to-face services. These services are popular with the public, but are hard to maintain in today's environment of reduced funding. The new project will generate findings and recommendations to help members of the library community better understand their options as they implement the next generation of virtual reference services (VRS).

The current project proposes a new model that enables virtual reference services to remain viable despite today's environment of reduced resources. It will investigate the possibility of seamless collaboration between knowledge institutions such as libraries and the Social Q&A (SQA) community. Use statistics indicate that VRS continues to grow as most libraries now offer VRS as popular alternatives to traditional face-to-face reference.

Connaway commented, "I am very happy that we are receiving this funding from IMLS and that we have the opportunity to work with Marie and Chirag at Rutgers to investigate the possibility of linking Social Q&A services with library virtual reference services. It's also a great opportunity for us to build on our previous research findings from the 'Seeking Synchronicity' project that also was funded by IMLS, Rutgers, and OCLC."

The new project's three phases will identify VRS system enhancements to help achieve sustainability and to collaboratively leverage subject knowledge to meet user needs and heightened expectations. Phase I (Transcript Content Analysis) consists of a longitudinal analysis of 500 randomly selected VRS transcripts and 1000 SQA site transcripts. Phase II (Telephone Interviews and Analysis) includes in-depth phone interviews with 150 subjects from key user and information provider populations. Phase III (Constructing Design Specifications) focuses on creating design specifications to link VRS and SQA to explore solutions for VRS sustainability.

Polaris Library Systems Announces Strong Third Quarter

SYRACUSE, N.Y., October 6, 2011 — Polaris Library Systems, a pioneer in the development of library technology solutions for public, private and academic libraries, today announces that an additional 45 libraries have signed contracts to use the Polaris Integrated Library System (ILS) in the third quarter of 2011. This brings the total number of new library locations served by Polaris year-to-date to 251, and already puts Polaris ahead of 2010 in signed contracts.

New Polaris ILS customers and their previous ILS systems include:

- Champaign Public Library, IL (Horizon)
- Sparta Public Library, NJ (Symphony)
- Lake County/Lowell (shared), IN (Horizon)

- Topeka and Shawnee County Public Library, KS (Horizon)
- Coquitlam Public Library, British Columbia, Canada (Vubis Smart)
- Seton Hill University, PA (Voyager)
- Washington County Library System, AR (Millennium)
- Nesmith Library, NH (Destiny)
- Donald L. Alexander Library, Allegany College of Maryland, MD (Vubis Smart)

"Many of these customers selected Polaris because they needed a system that would help them evolve their staff and patrons' capabilities," said Bill Schickling, President and CEO, Polaris Library Systems. "Our current customers can and do testify that the Polaris ILS does just that, plus it comes with the industry's best customer support. We're a partner, not just a vendor. Libraries appreciate that and so do their patrons, and our growth over the last year is a direct reflection of that philosophy."

Pubget, OCLC Partner to Provide a Leap Forward in Serials Management

OCLC has partnered with Pubget to provide an automated process for loading data into the WorldCat knowledge base. This process uses Pubget's proprietary technology for collecting holdings records—the first to fully automate record collection. Through Pubget's automation, subscribers to the WorldCat knowledge base can receive holdings changes in real time and with up to 30% higher accuracy.

Through this process, library staff members provide login and password information for the e-resources to which their library subscribes. Pubget then retrieves up-to-date holdings information directly from content provider sites and provides this to the WorldCat knowledge base. Following the initial load, holdings updates occur automatically.

Libraries, publishers and end-users see several benefits from this technology. It saves time for library staff by eliminating repeated manual transfer of holdings information from local systems. For publishers, a permission-based connection with the library eliminates the chore of sending data out to multiple suppliers. Finally, many libraries have found that this process gives end users more comprehensive access to their licensed content than other update methods.

Pubget and OCLC will have representatives available at the OCLC booth N417 at the Frankfurt Book Fair to answer questions about the process for publishers and libraries. Eligible OCLC member libraries may request use of the WorldCat knowledge base through the form at https://www3.oclc.org/app/worldcat/wckb/.

Summaries of the Best Available Business Books Now Available via Business Book Summaries iPhone Application

IPSWICH, Mass. — September 27, 2011 — A new iPhone application for Business Book Summaries (BBS) from EBSCO Publishing has been released.

The Business Book Summaries iPhone app is designed for BBS customers looking for convenient and quick access to concise, yet comprehensive book summaries for the best business books available.

With the new BBS iPhone app, executives are able to access the most current business thought from anywhere via their Apple iPhone, iPod Touch or iPad. Available free from the iTunes App Store, Business Book Summaries iPhone app offers easy authentication for users via their BBS profile.

Features included with the new app include a book carousel home page and the ability to browse by category, new book summaries or summaries available in Audio. The app also provides an option to download PDFs and Audio to the user's device for offline viewing—allowing users to view the content at time better for them.

Business Book Summaries is a database providing concise summaries of the leading business books. Designed to help executives acquire business knowledge faster, BBS includes a library of more than 750 book summaries with more than 60 new titles added annually. For each book, experts create 300-word, 650-word, and 4,500-word summaries that present the author's ideas in a condensed form.

Business Book Summaries provides summaries of the top business books containing the most current business thought. Additional corporate learning solutions offered by EBSCO Publishing include Corporate Learning Watch, Learning Centers, Competency Center and Employee Training Center.

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