Smarter Libraries Through Technology
by Marshall Breeding

Common Problems / Diverse Solutions

I find that one of the most exciting aspects of the current library technology scene is the expanding diversity of available alternatives to libraries. Today we see vigorous competition among different models of software licensing and development, differing conceptual models of how best to frame library automation functionality, and a variety of technical alternatives to improve end-user discovery of library collections.

It hasn’t always been that way. In previous times, the main thrust of the library automation industry seemed to be a focus on competition among differing brands and models of integrated library systems that shared remarkably common models of functionality. The key business problem of libraries was the management of physical collections and each of the competing solutions offered basically the same set of integrated modules: cataloging, circulation, acquisitions, serials, and an online catalog. Sure, each product brought its own distinctive set of nuanced features, often optimized for particular types of libraries. But the points of differentiation were often subtle and were latched to assumptions about the work carried out by libraries that has since changed quite radically.

The expansion of library collections into ever increasing proportions of digital content and expectations to provide online full text access to articles has completely changed the basic expectations of library automation. The tasks that were addressed by the integrated library system of a decade ago now represent a shrinking proportion of needed functionality. A variety of different paths have been forged to fulfill this ever expanding and more complex suite of library technology requirements. Today we have some strategies where supplemental modules like electronic resource management complement the ILS to round out needed functionality. This approach allows libraries to build on the stable and mature ILS products that have evolved to deliver rich and nuanced functionality. It will be interesting to see the completion of projects like Ex Libris URM and Kuali OLE, which aim to offer a unified platform for managing diverse library collections. OCLC’s WorldCat Management Service presents an alternative that divests libraries from the need to maintain local automation systems, relying instead on a globally shared technology platform. These examples show quite divergent visions of technology platforms to support library operations.
Another fascinating corner of activity in the library technology realm concerns the products designed to provide access to library collections and services. Components such as federated search utilities and OpenURL link resolvers layer have become fairly well established pieces of necessary infrastructure and have been popular add-ins for over a decade. Today the most active competition happens among the different alternatives for resource discovery. An initial wave of products—AquaBrowser Library, Encore, Primo, VuFind, and Blacklight—made important progress in modernizing library interfaces up to the level of expectations set by other major Web destinations. A more recent round of products, including Summon, Primo Central, and EBSCO Discovery Service, takes resource discovery to a new level, broadening their reach into the massive universe of articles encompassed by a library’s investments in subscriptions e-journal content. Until now, these products operated on the basis of massive indexes built in advance from content provided by the publishers and aggregators of this content. The newest entrant in this product category, Encore Synergy from Innovative Interfaces, provides discovery of a library’s collection of articles without one of these prebuilt indexes. I’ll present a more detailed look at Encore Synergy in this issue of SLN. Again, I see a broadly shared understanding of the problem of providing access to all the components of library collections, implemented through significantly different technology strategies.

I’ve covered each of these alternatives in some detail in previous issues of SLN; I’m just emphasizing the broader perspective that today, we don’t just have competing products, but competing visions for how technology can help libraries fulfill their missions. Having more options is great for libraries, but presents more of a challenge to sort out which approach best aligns with any given library’s strategic objectives, budget limitations, and service philosophy.

**Access Articles through Encore Synergy**

Innovative Interfaces has launched Encore Synergy, a new extension to the Encore discovery platform that blends search results from article resources along with the items returned from the library’s local catalog into the user experience. Encore Synergy, unlike the other discovery products that aim to deliver articles in search results, depends on real-time Web services connections with content providers rather than a pre-built consolidated index of harvested content. Innovative shares the concern for providing access to articles with the discovery interface but has developed an alternative model that it considers more effective than that followed by the other end-user discovery products.

**Competition for Article Discovery**

The competition has become intense in the discovery interfaces front, with increasing expectations to provide ever broader access to library collections. In the early phase of this genre, the emphasis focused on modernizing the user interface with features such as a single search box, relevancy ranked results, faceted navigation, word clouds, and improved visual designs with nicer appeal to library users.

In the last year, a main area of competition shifted to the scope of content addressed by each product. The first products in this wave include Summon, EBSCO Discovery Service, and Primo Central, each based on massive indexes of content, derived from the library’s ILS and other local repositories, and massive amounts of article-level content. The basic idea involves creating arrangements with as many of the organizations that license content to libraries so that those resources will be represented in the index. This strategy results in an index that includes books, articles, and other types of content.
Innovative Interfaces shares the goal of a single search box that address all aspects of the library’s collection, including locally held materials as well as articles from the its electronic subscriptions. Increasing investments in e-journals and databases demands that the primary search tool include access to articles. The company elected to expand its Encore discovery product to address article content using technologies that avoid the need to harvest content from each of the resource providers and build and maintain a central index. Given the extensive body of articles represented in library subscriptions, these pre-harvested indexes include hundreds of millions of articles and only a few million books and other materials. They are difficult to keep up-to-date, especially for newspaper content which adds new material daily. Ranking search results based on an index that combines articles and books can be especially challenging since the full text of articles may be indexed, with books represented by MARC records with more sparse content. One of the key technical challenges of this approach involves performing relevancy rankings in search results that give books adequately prominent weightings relative to the much larger number of articles that might match a user query. Given these difficulties, Innovative chose a completely different approach to expand Encore to include access to articles.

Consistent with the competition to expand the scope of discovery interfaces, many of the products initially optimized for local content have expanded their scope. Ex Libris, for example, created Primo initially as a discovery platform focused on indexing local content, with remote article content available in a less powerful way through an integrated federated search component. It recently launched Primo Central that extended the product for more immediate access to articles through a central index that the company will maintain.

Encore Synergy Integrates Articles into Discovery

Innovative has also added a new dimension to Encore, but following a much different technology structure. The company announced its technology to integrate articles into Encore in January of 2010, launched in April, branded as Encore Synergy. Early adopters of the product include the Scottsdale Public Library and the University of Nebraska at Lincoln.

Encore Synergy exposes users to the articles available that relate to a search by inserting a block of sample results from article resources within the initial page of results displayed in response to a query. This approach prompts users to explore article results of interest, without interfiling books and articles throughout the result list. A similar model, suggests Innovative, can be seen in the way that Google treats news stories in its search results. For many topics submitted to the general Google Web search, one or more news stories will be inserted near the top of the results page, under a linked heading “News results for …” that when clicked leads to what would be displayed if the query had been submitted to Google News. Encore Synergy works the same with articles. Encore search results will include a block of two or three articles that when selected lead users to complete results from the selected article resources.

John McCullough, VP for the Encore Division at Innovative, expresses his view of the advantage of this search model: “Encore Synergy discovers local collections and article content from a single search box, but with modes optimized for catalog and collections data and for article data, seamlessly navigated by the user. It does not sacrifice features to a common denominator to get everything into a single index.”

Web Services Technology

The technology behind Encore Synergy relies on Web services requests and responses with selected providers of article content. Though Encore Synergy retrieves results in real time from multiple content providers, Innovative emphasizes that the technology used is not traditional federated search. Instead, it uses a set of Web services that issues a request package that return responses that deliver results in a way that supports the ability to support facets on qualifiers such as full-text content, peer-reviewed items. The initial block of articles presented in the initial result page and result sets, and facets are created through real-time interactions with the remote resource targets. The results from the library’s local collections continue to be indexed directly in Encore, and are ranked accordingly.
Innovative Interfaces initially released Encore in late 2006 as its offering in the emerging genre of discovery interfaces. By the end of 2009, Encore had been installed in over 260 libraries. The company has continued to expand Encore as a modern, services-oriented platform that not only forms the basis of a next-generation interface but also enables many other avenues of interoperability.

Innovative has developed partnerships with several content providers to implement the Web services interoperability that supports Encore Synergy. The company announced a partnership with EBSCO in January 2010 that involved both the integration of EBSCOhost resources through the Web services available in its EBSCOhost Integration Kit, but also the goal of establishing a mechanism whereby patrons can submit reading recommendations into NoveList directly from Encore. These resources would naturally only be available to libraries that subscribe to these EBSCO products. Other resources with which Innovative has developed interoperability with Encore Synergy include Gale, LexisNexis Academic, JSTOR, ARTstor, Encyclopedia Britannica, Elsevier, PubMed, ProQuest, and Wilson. Innovative expects this list to continually expand to allow increasingly comprehensive access of a library’s article collections through Encore Synergy.

Encore background

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Encore Reporter, announced in July 2009 and delivered in January of this year, provides an example of how Encore functions not just as an end-user interface, but as a generalized services layer. It leverages the Encore technology platform to deliver use statistics and other data regarding the library’s automation environment. Early adopters and development partners of this product include the eLGAR consortium in Auckland, New Zealand, Michigan State University, the San Diego County Library, the Toledo-Lucas County Public Library, Tulsa City-County Library, and the Jefferson County Public Library in Colorado. The Encore Query API, announced in October 2008, provides a set of Web services that allow external applications and Web pages to interact with the Encore discovery functionality.

A separate division within Innovative Interfaces is dedicated to Encore, with its own website at encoreforlibraries.com. The company named John McCullough as its new Vice President of its Encore Division in January 2010. McCollough joined Innovative in 1998 and has served in a variety of positions including Product Manager for the Web OPAC and sales representative for the Western United States and Canada.

―Marshall Breeding

BCR in Transition

BCR, a regional network based in Aurora, CO, serves eleven western US states including Alaska, Colorado, Idaho, Iowa, Kansas, Montana, Nevada, Oregon, Utah, Washington and Wyoming. Unlike many of the other regional network organizations, membership primarily takes place at the statewide level, with less of an emphasis on individual library memberships. Services of the organization include volume discounts for databases and other content products, continuing education and training, and digital preservation. Originally established in 1935, BCR, or Bibliographical Center for Research, stood
as the first multi-state library cooperative.

Not unlike many of the other regional networks originally established to provide billing and support for OCLC services, BCR has experienced extreme economic pressures. In recent years we have seen SOLINET, PALINET, and NELINET consolidate into Lyrisis, OCLC acquired CAPCON, NEBASE, serving the 141 libraries in Nebraska, folded and was absorbed into BCR in April 2009.

In February 2010, BCR issued a press release announcing that it was exploring strategic options with Lyrisis; on April 5, 2010 a joint announcement described the resulting arrangements, phasing out the operations of BCR. The transition of BCR will involve its members being granted individual membership to Lyrisis with no additional charges beginning October 1, 2010. When the transitional membership expires on June 30, 2011, libraries can elect for a paid membership to Lyrisis. With BCR, most membership fees were paid by at the state level rather than by individual libraries. During a transition period from April through October 2010, libraries can continue to renew discounted content purchases through BCR; the same discounts will be available through Lyrisis afterward. BCR has discontinued its continuing education and training programs; its members can now take advantage of Lyrisis training programs at member rates.

—Marshall Breeding

**Industry People on the Move**

SirsiDynix made several recent changes in middle management positions. **Brad Whittle** was promoted to VP for Sales, expanding the scope of his portfolio from North America to worldwide. Whittle returned to SirsiDynix in January 2009 following a brief hiatus as VP for Sales and Product Management at Alpha Bay. Formerly Director for Implementation Services, **Tim Hyde** was appointed as VP for Professional Services. On the international front, **Darren Wallace** now serves as Director of Sales and Marketing, Asia-Pacific and **David Green** as Director of Sales and Marketing, Europe.

Biblioteca RFID Library Systems expanded its North American staff to add capacity in step with new library customers added through increased sales. **Jared Brumlow** comes to Biblioteca from SirsiDynix where he served as a project manager since 2001 **James Carder**, whose experience includes a period with RFID provider TAGSYS and Steven Mikels have also recently joined the company. Biblioteca has made strong inroads into the North American RFID market, reporting a three-fold increase in sales since 2008. The company recently relocated into a larger facility in its Huntsville, AL operations. The US division belongs to a global company based in Switzerland. 

**BibLibre**, a support firm for Koha in France named **Philippe Chabanon** as its new Chief Executive Officer. Former CEO Nicholas Morin will continue with the company though August 2010. BibLibre has grown to a company of 11 employees, providing services primarily within France, though it has worked with libraries in other parts of Europe.

—Marshall Breeding
SydneyPlus acquires Questor Systems

The last two years have not seen the larger-scale mergers and acquisitions that reshaped the industry from 2005–2007 when large private equity firms began gaining ownership of several of the large companies. Recent transactions of a smaller magnitude have taken place, including the management buy-out that recently took place at Polaris and the acquisition of LibLime by PTFS. A different set of companies specialize in products for special libraries than the common names of those involved in automation for public, academic and school libraries. These companies characterize themselves more as offering products in enterprise knowledge management rather than library automation, and include EOS International, SydneyPLUS, Cuadra Associates, Inmagic, and OpenText.

One of these companies, SydneyPLUS, has expanded its position through business acquisitions that complement its products and services. In June 2008 SydneyPLUS acquired California-based Cuadra Systems which offers its Cuadra STAR family of products to special libraries, as well as to archives and other organizations with information management challenges. Cuadra has remained separately operated since joining the SydneyPLUS fold; its products and client base remain distinctive and appeal to different types of libraries than SydneyPLUS own products.

SydneyPLUS has now announced the acquisition of Questor Systems, a company that offers its Argus platform for the management of collections that include artifacts and other types of physical objects. Typical organizations using Argus would include museums, historical societies, archives, as well as universities and corporations with specialized collections of objects and artifacts.

Questor Systems will continue to be operated independently as a wholly owned subsidiary of SydneyPLUS, retaining its separate identity. The ARGUS platform will continue to be supported and developed indefinitely. Through its acquisition by SydneyPLUS, Questor Systems’ developers gain access to increased research and development resources; the company will benefit from the business infrastructure and investment capital of its new parent organization.

According to Ron Aspe, SydneyPLUS CEO, “Carlos Cuadra, CEO and founder of Cuadra Associates, was the catalyst to Questor’s joining the SydneyPLUS family. Cuadra has a long history and great reputation for providing quality software and services to libraries, archives and museums. We anticipate significant collaboration between the people at Cuadra and Questor.” Torrance, CA-based Questar was founded in 1986; today about 400 organizations use its ARGUS products. The ARGUS products automate the management of collections, but also provide automation support for archaeological sites and conservation facilities. The initial software was developed at the Southwest Museum in 1985.

SydneyPLUS is headed by CEO Ron Aspe and based in Vancouver, British Columbia, Canada. The company was founded in 1977 as Sydney Development Corporation.

—Marshall Breeding
The following are excerpts from news updates concerning recent developments in library automation. For a more comprehensive list, visit Marshall Breeding’s website at http://www.librarytechnology.org/ and click on "Industry News."

**Sirsi Dynix**

PROVO, UT, May 6, 2010—SirsiDynix, the world leader in library technology, today announced that customer training will now be available through SirsiDynix Mentor, an online learning management tool for the benefit of customer libraries and their staff. Through Mentor, library managers and staff can access, track, and report on training services provided by the company.

Through SirsiDynix Mentor, library managers can assign learning activities based on a learner’s job responsibilities and track individual progress or course progress. Library staff can take their assigned training, print certificates of completion, and view their learning transcript, which can document training outside of the SirsiDynix course catalog.

**Ex Libris**

Adelaide, Australia—May 6, 2010. Ex Libris Group is pleased to announce that Monash University Library has chosen the Primo discovery and delivery solution, together with the Primo Central mega-aggregate of scholarly e-content, to provide users with a unified interface for the discovery and delivery of the library’s vast collections and global electronic resources. Monash University joins the rapidly expanding international Primo community, now over 270 strong and spanning 29 countries.

The library selected Primo and Primo Central to achieve a streamlined experience that would enable university students and faculty to search and access the university’s physical and electronic collections with ease. In recent years, the library catalog at Monash has been supplemented by a host of other sources of information for library users. These changes resulted from the revolution in users’ expectations and behavior, the increasing number of databases (surpassing 800) to which the library provides access; and the implementation of academic repositories such as the Australian Research Repository Online to the World (ARROW). Primo will enable library users at Monash to access the full breadth of the university’s collections via a single search interface.

**Innovative Interfaces**

May 3, 2010—Emeryville, CA. Innovative Interfaces announced that IUG 2010, the 18th annual Innovative Users Group (IUG) Conference, was held in Chicago, Illinois this April 18th-21st. Over 1,100 library professionals from eighteen countries participated in over 120 sessions presented by their colleagues and by staff from Innovative. Attendees of the annual meeting presented best practices for using Innovative products, reported on creative and unique implementations of technology, and discussed partnerships with the Innovative product-development team.

**SkyRiver**

May 3, 2010—Emeryville, CA. Des Moines (IA) Public Library (DMPL), has switched to SkyRiver for its cataloging services. As SkyRiver’s first library partner with a Sirsi/Dynix Horizon local system, DMPL exemplifies SkyRiver’s local system independence.

Library Director, Saul Amdur-sky, states “I’m proud to have helped SkyRiver pioneer and test its services with our Horizon system.” Technical Services Head, Dawn Work-MaKinne, says “There really was no disruption in our operations. SkyRiver just worked from day one. Even better, our suggestions for enhancing the service were appreciated and are being implemented.” As with SkyRiver’s other library partners, DMPL is saving significant dollars by moving to SkyRiver. Amdursky adds “It’s great to know that you are helping move the library community forward while at the same time saving money for your own library.”

**The Library Corporation**

DENVER, Colo. (April 16, 2010)—The Library Corporation (TLC) is pleased to announce that the Brevard County Libraries of Cocoa, Fla., has enhanced its CARL.X integrated automation system with TLC’s LS2 PAC.

LS2 PAC is an exciting, flexible, multi-application platform that merges library automation with the user-friendly amenities of Web 2.0. LS2 PAC is beautiful software that boasts a flowing, eye-catching representation of a library’s titles; RSS news and information feeds that highlight current events and related library books; maps that show where items are located within a library; federated searching of in-house and online content; integrated searching of subscription databases; list creation and sharing capabilities; patron ratings, reviews, and search tags; faceted, manageable search results ranked by relevancy; genre browsing; patron recommendations based on ratings; and many more features.
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