Smarter Libraries through Technology:

Forming Constructive Partnerships

By Marshall Breeding

I have long held that libraries should not be passive consumers of technology products, but rather, active partners in shaping them. Libraries have a great deal at stake in how well these products work. They benefit from individual or collective efforts to influence product development in order to address ever evolving requirements. Not all libraries have spare resources to lend to such efforts, and opportunities for involvement vary widely. Libraries can take many different routes to have the most impact, depending on their circumstances.

The conventional route for libraries to influence the shape of a major software application takes place through user groups. Almost all the major integrated library systems or other strategic applications have formal organizations that represent the interests of the institutions that have licensed or purchased the product. These user groups may be sponsored by the company that produces the product or be legally independent. Either way, they represent an additional layer of accountability to the vendors. In addition to providing educational opportunities, user groups apply the collective wisdom of their members to identify priorities for enhancements. Participation in these enhancement ballots is one of the avenues that libraries have to influence product development that requires a minimal investment in time and resources. I see user groups as a critical component in the relationship between the community of libraries using a product and the company that provides it. It is important for these groups to provide constructively critical feedback and not just serve as a venue for companies to give sales presentations for new products.

Some libraries may choose to enter into arrangements with vendors to perform beta testing for new product releases. Beta testing involves a significant commitment of resources on the part of the library, mostly in the library staff time spent putting the software through its paces, fully exercising its functionality to ensure that all features work as expected. Such arrangements benefit the larger body of users of the software because problems may be found and resolved in early testing before release to the entire customer base. Libraries volunteer to beta test software to get discounted pricing,

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for the satisfaction of helping the broader user community, and to gain early access to the software and thereby improve operational efficiency or service performance.

An even deeper level of engagement takes the form of development partnerships between a number of libraries and a company creating a new product. Development partner libraries have the ability to influence the general shape of the product as well as to help refine specific areas of functionality. The extent of the impact depends on how early development partners are invited into the process and on how open the vendor is to making adjustments to their development agenda. Ideally, development partnerships represent a concerted, cooperative effort of mutual benefit: libraries end up with products better aligned with their needs, and companies have stronger products to offer to their customers. In many cases, the terms of a development partnership include agreeing to implement the software in production once it is completed and meets mutually agreed upon requirements and performance benchmarks. Libraries that make commitments as development partners will have to allocate significant staff time towards the effort. If the project is successful, the library benefits from a heightened sense of ownership of the product, detailed attention from the company in implementation and support issues, and other direct and indirect benefits. The library may also be offered substantial discounts on the cost of the software.

This month's lead story provides an example of a library that elected to become a development partner on a major library automation project. Boston College has been working with Ex Libris as a development partner for Alma for the past three years and has recently placed the software into production. Though development was a lengthy and time-consuming process, the partnership seems to have been a positive experience overall.

Libraries can also take even more ambitious paths in the creation of software through involvement with open source projects. Either through financial investments in development projects or in-kind contributions of personnel for programming, project management, or quality assurance, a library can help build systems for its own use that are then available without license fees to others with similar needs. The Kuali OLE project serves as an example. A cadre of libraries is working together to design and build an enterprise level library management environment for research and academic libraries with funding from the Andrew W. Mellon Foundation, matched by both direct funding from the partner institutions as well as in-kind contributions of personnel resources. In recent news, Villanova University has signed on as an additional investing partner, joining Indiana University, the University of Chicago, a consortium of universities in Florida, Duke University, North Carolina State University, Lehigh University, University of Maryland, University of Pennsylvania, and the University of Michigan.

While it's important for a library to cultivate positive relationships with the organizations that supply its strategic technology products and to be engaged in whatever ways available to make needed improvements, resources are always limited and it's necessary to be selective regarding commitments. In many cases, products already meet basic needs and competing priorities warrant a more passive approach. Libraries should not be too quick to jump into beta test or development partner relationships. Make sure that terms are mutually agreeable and that the partnership has strong possibilities for concrete benefits with manageable risk factors. Libraries should not be timid when negotiating terms for such engagements. These companies stand to gain from the increased value of products that they will then market to other institutions. Those libraries that invest substantial in-kind resources should expect to receive adequate value for those efforts. In the end, libraries will be better served by products in which they participated in their development. Fortunately, few vendors in the library automation industry would choose a course of unilateral development and instead welcome participation by the potential users of their products.

Crossing the Threshold: Boston College Places Alma into Production

On July 2, 2012, the Thomas P. O'Neill, Jr. Library of Boston College became the first to place Alma, the library services platform created by Ex Libris, into production use. The library migrated from an Aleph system in place since 2000. Boston College had been working with Ex Libris since mid-2009 as a development partner, testing each incremental release of the software, and providing constructive feedback. The library is a member of the Association of Research Libraries, with a staff numbering around 120, and a collection of 3.5 million volumes.

Christine Conroy, Associate University Librarian for Collection Services, reported, "The entire process has gone very smoothly. It has been a very long road in the development and implementation of Alma, but it was placed into production without major disruption. We received excellent support from Ex Libris throughout the process."

The library has fully migrated away from Aleph, though the incumbent system will remain available to library staff to consult in read-only mode for a limited period. The fiscal year close was performed on Aleph at the end of May 2012. New acquisitions and all current operations are now being performed on Alma.

This first production implementation of Alma marks a major milestone in the product's development cycle. In the library software arena, new products are generally regarded skeptically until they gain credibility proven through use in production. Other libraries interested in Alma will naturally keep a close eye on how it fares at Boston College in the coming months.

Continuing a History of Vendor Cooperation

Boston College has an established history of collaboration with Ex Libris. It also worked as an early adopter of Aleph in North America, beginning in 1999, and was the second major US library to place that ILS into production, following Notre Dame University. While Aleph had been implemented previously throughout Europe, significant adjustments were needed for the system to work well with the automation workflows prevalent in US libraries.

The development efforts toward this initial release of Alma took place over the course of three years, beginning with concep-tual exploration. From the initial kick-off in June 2009 through the final migration in July 2012, involvement mostly involved department heads. More staff became involved, starting with the testing phase and continuing as the process approached implementation. Ex Libris provided the development partners five incremental releases of the software that included a growing set of functionality for testing and evaluation.

As development partners, Boston College personnel gained early access to the software for testing and evaluation. Conroy indicated that participation as a development partner enabled the library to have an impact on the functionality, resulting in a product better able to meet its operational needs.

Other institutions serving as development partners with Ex Libris for Alma include Princeton University, Purdue University, and Katholieke Universiteit Leuven Libraries in Belgium, which includes the LIBIS network of 30 independent libraries. A number of other academic and research libraries have committed to be early adopters, including more than a dozen academic libraries in the United States such as Fort Hays State University in Kansas, National University in San Diego, CA, nine universities in Europe, and members of the UNILINC consortium in Australia.

Some additional production implementations will be released among the development partners and early adopters later in 2012, with others scheduled for 2013. Time frames for specific institutions have not been stated publicly. We observe that Ex Libris has been cultivating a pipeline of libraries to implement Alma in this early adoption cycle, paving the way for larger numbers of libraries ready to move away from aging, legacy integrated library systems to a proven, new-generation product.

Impact on Patrons

The transition from Aleph to Alma at Boston College was largely transparent to library patrons because the library had been using Primo with Aleph since 2007. Only minor differences apply to the features of Primo when it is used as the end-user interface with Alma. The key difference lies in the absence of the Aleph online catalog that was offered as a secondary option prior to the transition to Alma. While not including collection browsing based on authority headings, which were a standard feature of traditional online catalogs, Primo offers

advanced search options with operators including *contains, exact*, and *starts with* that, according to Conroy, satisfies much of the need for traditional searching capabilities.

Conroy reports that the new environment with Primo as the patron interface has been well accepted by faculty and students. The library offered demonstrations of the new system during the spring semester to faculty in preparation for the migration.

Complete reliance on discovery services without the fallback of a traditional online catalog applies not only to Alma, but also to other new-generation products. The scope and functionality of these products differ significantly from integrated systems and the concept of a traditional online catalog. Structured search techniques addressing the print collection are no longer applicable. Although many libraries have implemented discovery services with broad scope, many continue to offer access to the online catalog of their integrated library system.

Shift from Local to Cloud-Based Infrastructure

In implementing Alma, Boston College has also shifted to cloud-based technologies for its basic automation services. The library's Aleph resided on servers housed within Boston College, while its new configuration relies entirely on software hosted by Ex Libris, including both Alma and Primo. The library also previously operated a local instance of SFX, which is no longer needed as this functionality is subsumed within Alma.

Ex Libris has established data centers to host its products, with two sites in the United States, one in The Netherlands, with others coming online in other global regions later this year.

Boston College continues to use a local implementation of DigiTool, the digital collection management application purchased from Ex Libris, for its 19 locally curated collections of photographs, manuscripts, newspapers, journals, or other publications.

Fulfilling the Vision of Unified Resource Management

From its inception, Ex Libris has characterized Alma as providing "unified resource management," referring to the product by that designation until the Alma brand was launched in January 2011. Rather than operating separate applications for managing print and electronic resources, Alma aims to provide a single platform supporting workflows for different formats of library materials. Prior to the transition to Alma, Boston College used a locally developed application for managing its elec-

tronic resources and Aleph for its print collection. The library shifted away from both, fulfilling the basic unification promised. All relevant data was migrated from both the local electronic resource management system and from Aleph into Alma. The Boston College library has separate units for maintaining its electronic resources and for the acquisitions and cataloging of monographs. Both of these groups now operate on a common platform and work together closely, though the separate organizational structure persists. Conroy reports that the library is already seeing efficiencies in the way that Alma works relative to the systems it replaced.

Alma supports a hybrid data model where a Community Zone is available for metadata or content resources shared across the libraries using the product and the Local Zone for institution-specific data. At least initially, Boston College has chosen to manage its MARC-based bibliographic database in the Local Zone. The knowledge base describing e-resource holdings, however, resides in the Community Zone, supporting both link resolution and management of electronic subscriptions.

Competitive Context

Alma fits with a genre of products termed library service platforms, which have substantial differences from the category of integrated library systems. Some of the general characteristics of library service platforms include:

- comprehensive management of library materials across print, electronic, and digital formats,
- reliance on service-oriented architecture,
- exposing APIs for extensibility and interoperability,
- design for deployment through multi-tenant software-as-a-service,
- and data models that enable inter-institutional cooperative metadata management.

Other products that fit, at least to some extent, include OCLC WorldShare Management Services, Intota from Serials Solutions, Sierra from Innovative Interfaces, and the community source Kuali OLE project.

In general terms, we are now in the late development and early deployment of these new products, with each on a somewhat different timeline for roll-out. OCLC WorldShare Management Services saw its first production implementations in late 2010. Hillsdale College was the first to put Innovative's Sierra into production in April 2012. The Kuali OLE project expects to see its initial release completed towards the end of

2012, with investing partner libraries beginning migrations in 2013.

Business Strategy Based On Research and Development

Ex Libris has made significant investments in the development of Alma. The company devotes more resources to software development than any other in the industry, allocating 170 of its 512 personnel to this activity (Source "Automation Marketplace," *Library Journal*. April 2012). Not all of the company's development capacity has gone toward Alma; it continues development of Primo and Primo Central discovery service, maintains the Aleph and Voyager integrated library systems, and a variety of other products. Research and development has played an important role in the company's business strategy, producing products that initiate new categories, such as its commercialization of SFX OpenURL link resolver in 1999, the Rosetta digital preservation platform in 2009, or the bX Scholarly Recommender Service in 2009. This development-oriented business strategy results in a mix of products that the company can market in future years. While Alma is now making the transition from development into very early production phase, we can anticipate a very long sales cycle where it competes to displace legacy products over the course of the next decade.

—*Marshall Breeding*

EBSCO Discovery Service Extends Options through New Partnerships

In recent weeks, EBSCO has announced a number of partnerships that potentially extend the reach of EBSCO Discovery Service. This product has become well established as one of the major index-based library resource discovery services, along with Summon from Serials Solutions, Primo and Primo Central from Ex Libris, and OCLC's WorldCat Local. These products compete vigorously to offer the broadest coverage of the resources in library collections, the strongest features for search and retrieval, and for the most flexibility and interoperability with other applications within a library's technical infrastructure.

EBSCO stands apart from these other competitors in that it has not ventured into the arena of library management systems. While WorldCat Local will naturally be paired with WorldShare Management Services, Primo with Alma, and Summon with Intota, EBSCO Discovery Service is positioned to work with any back-end management platform, including both the legacy and new-generation products.

This product has become well established as one of the major index-based library resource discovery services

The release of the EBSCO Discovery Service API, described in July 2012 issue of *Smart Libraries Newsletter*, provides a solid foundation for its integration with a variety of back-end management systems or other end user portals. In recent months, EBSCO has announced partnerships that leverage this API to combine the capability of its discovery service into strategic products of other companies, including SirsiDynix, OCLC, and Innovative Interfaces.

An agreement with SirsiDynix enables an integration between Sirsi-Dynix eResource Central and EBSCO Discovery Service. SirsiDynix created eResource Central to fully integrate discovery and access of e-books and other electronic resources into the patron interface. It allows e-books provided through selected services to appear alongside print copies and to be downloaded to e-readers with minimal effort. Initial partners included 360 Axis from Baker & Taylor. The agreement with EBSCO will extend the general discovery capabilities of EBSCO Discovery Service into eResource Central and integrate eBooks on EBSCOhost for seamless access.

This arrangement helps SirsiDynix expand its discovery services. Its Enterprise discovery platform lacks the centralized index associated with products such as EBSCO Discovery Service, Summon, Primo Central, and WorldCat Local. Through this partnership, libraries that have purchased SirsiDynix eResource and also subscribe to EBSCO Discovery Service will gain extended search capabilities. Libraries that have purchased eBooks on EBSCOhost will see titles fully integrated in search results. Their patrons will be able to check out e-books without additional authentication steps and read them on the EBSCO e-book viewer.

EBSCO also extended its existing partnership with Innovative Interfaces. Innovative also has not created an article-level index for its Encore discovery service. Encore Synergy provides access to articles by sending the user's search request to selected resources and highlighting items alongside the primary Encore result set so that users can click through to request additional articles on the topic. Through this arrangement with EBSCO, libraries that have purchased Encore and that also subscribe to EBSCO Discovery Service, can get the full capabilities of EBSCO's index and search features delivered through the Encore interface. This joint development partnership will also strengthen the interoperability between EBSCO Discovery Service and Innovative's Millennium and Sierra automation products.

OCLC and EBSCO have also initiated a partnership to develop full interoperability between EBSCO Discovery Service and WorldShare Management Services. For libraries that subscribe to both products, EBSCO Discovery Service could be used as the public interface for libraries that use WorldShare Management Services. This scenario would appeal, for example, to libraries that prefer the discovery capabilities of EBSCO Discovery Service over WorldCat Local and that have elected to use WorldShare Management Services rather than a traditional integrated library system.

One of the trends anticipated going forward would involve a renewed pairing between discovery services and new library management platforms offered by the same vendor, somewhat contrary to the pattern seen in recent years for discovery products to be acquired independently of back-end systems. Some of these natural pairings would include OCLC WorldCat Local with WorldShare Management Services, Primo with Alma, or Summon with Intota. By acquiring discovery and management products from the same vendor packaged together, no additional work will be required relative to the significant amount of effort required to integrate products acquired *a la carte*. The recent trend toward dis-integration between automation and discovery might see some re-integration. But there will be many exceptions to such re-integration, such as with EBSCO Discovery Service, where the company does not offer its own management product and has focused on integrating with all the others. The creation of an advanced API and multiple partnerships to connect EBSCO Discovery Services with other automation products will support its adoption should the movement toward product suites play out. There will also be other scenarios, such as the Kuali OLE platform for library management that has not developed its own discovery service. Many libraries may also have strong preferences for a given discovery service that override other concerns.

—Marshall Breeding

Library Technology News in Brief

Excerpted from press releases posted on Marshall Breeding's Library Technology Guides (http://www.librarytechnology.org/).

ebrary Adds Titles to Government Complete, Makes 9,000 New E-books, Launches New Military Packs

July 13, 2012 – Palo Alto, CA, USA – To help government libraries acquire e-books more strategically, ebrary, a ProQuest business, has added thousands of relevant e-books across acquisition models.

Government Complete, ebrary's affordable subscription database, has been updated with thousands of new e-books from publishers such as American Water Works Association, Cardiotext Publishing, and Urban Institute Press. The database now includes a growing selection of more than 76,000 titles with unlimited, multi-user access. Additionally, ebrary has added over 9,000 new titles from publishers such as American Institute of Aeronautics and Astronautics (AIAA), Society of Photo-Optical Instrumentation Engineers (SPIE), and Karger Publishers, that can be purchased outright or through its patron driven acquisition program where titles are only purchased if used.

To make it easier for military libraries to purchase essential titles, ebrary's on-staff librarians have created two new packs in Traumatic Brain Injury and Prosthetics Research. ebrary's new

Traumatic Brain Injury pack covers TBI from both a physical and psychological point of view and includes publishers such as Oxford University Press, Wiley-Blackwell, Cambridge University Press, Guilford Press, CRC Press, and Springer.

The Prosthetics Research pack encompasses topics such as biomedical materials, amputation, and robotics. Participating publishers include Cambridge University Press, Springer, Elsevier, and F.A. Davis. Both packs feature over 20 titles, with the majority published in the past three years.

LibLime and WALDO announce the production release of LibLime Academic Koha 5.0

North Bethesda, MD, July 12, 2012 LibLime, a division of PTFS, and WALDO (Westchester Academic Library Directors Organization) announce the production release of LibLime Academic Koha 5.0. All WALDO member libraries will undergo production upgrades over the next few weeks.

LibLime Academic Koha 5.0 provides the basic platform for true authority control in the application. Authorized fields on bibliographic records are now controlled by their ruling authority record. Edits or updates to the authority record are now globally updated throughout the database. MARC authority rules are in place for creation and use of authority records. Subfield 0 of the authorized field in a bibliographic record is now used properly for linking back to the authority record controlling the field. Coupled with the Authority Record import functionality from version 4.8, library staff can now update machine-generated authority records with valid authority records as part of their workflow.

LibLime Academic Koha 5.0 provides initial RDA support for the content, media, and carrier data fields. Additions to existing indexes make access to this RDA data available to researchers through OPAC and staff searching. RDA support will continue to expand under the guidance of the WALDO member Technical Services staffs.

NISO Launches New Initiative to Develop Recommended Practices for Demand-Driven Acquisition (DDA) of Monographs

June 20, 2012 - Baltimore, MD - The National Information Standards Organization (NISO) voting members have approved a new project to develop recommended practices for the Demand-Driven Acquisition (DDA) of Monographs. Many libraries have embraced DDA (also referred to as patron-driven acquisition) to present many more titles to their patrons for potential use and purchase than would ever be feasible under the traditional purchase model. If implemented correctly, DDA can make it possible to purchase only what is needed, allowing libraries to spend the same amount of money as they previously spent on monographs, but with a higher rate of use. However, this model requires libraries to develop and implement new procedures for adding titles to a "consideration pool", for keeping unowned titles available for purchase for some future period, often years after publication, for providing discovery methods of titles in the pool, establishing rules on when a title gets purchased or only temporarily leased, and how potential titles are discovered, and for handling of multiple formats of a title.

Individuals interested in participating in this working group should contact Nettie Lagace, Associate Director for Programs (nlagace@niso.org). An interest group list for this project will be available for those who would like to receive updates on the Working Group's progress and provide feedback to the group on its work. To subscribe, send an e-mail to dda-info-subscribe@list.niso.org.

LibriVox audiobooks collection to be indexed in the Summon Service

Serials Solutions has reached agreement to index the LibriVox collection of free audiobooks for discovery in the Summon service. The world's largest producer of public domain audiobooks, LibriVox offers more than 5500 separate works. Most are classic fiction, but there are also landmark philosophical, religious, political and scientific texts, as well as plays and shorter works such as poetry.

The LibriVox collection consists entirely of volunteer-created, spoken-word versions of works that are in the public domain. Most titles are in English, but to date there are more than 800 non-English language titles. While Chinese, French and German are the most popular languages other than English, there are more than 30 languages represented in all.

During April of this year, LibriVox announced that it had surpassed 100 million downloads of its offerings and had received a grant from the Andrew W. Mellon Foundation. The grant will go toward building the technical infrastructure, improving the organization's Web site and supporting the efforts of its volunteers to create more titles.

August 2012
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Smart Libraries Newsletter

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