



# Smart Libraries™

Formerly Library Systems Newsletter™

50 East Huron Street, Chicago, Illinois 60611-2795, USA



## Smarter Libraries through Technology:

### *What's in Store for 2012*

By Marshall Breeding

As we enter a new year, I'd like to pause and consider some of the trends and events that I anticipate playing out in 2012. The predictions I made for 2011 largely held (see *Smart Libraries Newsletter*, February 2011). Given the momentum of developments and the issues currently in play, 2012 may turn out to be a very interesting year in the realm of library technologies.

The year will mark the beginning of a new cycle of transitions in automation platforms that will run to completion over the next decade. **2012 will be a watershed year in the roll out of a new generation of library automation platforms, especially in the academic library arena.** Several major new automation systems will see their debut, including Ex Libris' **Alma**, **Sierra** from Innovative Interfaces, and Serials Solutions' **Web-scale Management Solution**.

2012 should be a big year for Ex Libris' **Alma**. In 2011, libraries that were engaged with Ex Libris as development partners received a series of incremental releases of the software, leading up to a final version, which is expected at the

year's end. With general release anticipated in early 2012, implementation by the libraries already signed on as early adopters should begin.

Innovative Interfaces planned beta versions of **Sierra** by the end of 2011. While it's not clear when the software will be ready for production use, Innovative has announced a significant number of libraries that have committed to migrate to **Sierra** as early adopters.

While some libraries implemented OCLC's **WorldShare Management System** in 2011, we can anticipate a new surge of adoption of this new platform following OCLC's recent rebranding of the product and as libraries gain confidence in the product following the experiences of the pioneering institutions.

In the open source realm, the **Kuali OLE** project should continue to roll out new preliminary releases, though it's not likely that the development partner libraries will transition to full production from their legacy ILS products this year. We can expect continued adoption of both **Koha** and **Evergreen**. A number of consortia that have been in the planning stages of implementation for the last year or so will likely come into production in 2012. **Koha** will continue to see new implementations by libraries in all parts of the globe.

Despite interest in open source automation products, proprietary solutions should do reasonably well, especially among larger libraries with more complex needs.

On the mergers and acquisitions front we can expect some activity in 2012. As I predicted for 2011, we saw some changes in ownership among the library automation vendors: **SydneyPLUS** acquired **Inmagic** (Oct 2011); in the **RFID** and **self-service** a new giant emerged with the acquisition of **Bibliotheca AG**, **Bibliotheca ITG**, and **Intelligent** by **One Equity Part-**

## IN THIS ISSUE

### What's in Store for 2012

PAGE 1

### Endeca for Library Discovery: Implications of Oracle's Acquisition

PAGE 2

### MySQL: Implications of Oracle's Ownership

PAGE 4

### Phoenix Public Library: Blending Discovery into the Web Presence

PAGE 4

### A New Wave of Executive Management Changes

PAGE 5

### Library Technology News in Brief

PAGE 6



### Receive *Smart Libraries* via e-mail

Subscribers that would like an e-mailed version of the newsletter each month should forward one e-mail address and all of the mailing label information printed on page 8 of the newsletter to [moneill@ala.org](mailto:moneill@ala.org). Type "e-mail my *Smart Libraries*" into the subject line. In addition to your monthly printed newsletter, you will receive an electronic copy via e-mail (to one address per paid subscription) at no extra charge each month.

ners (May 2011); OCLC made business acquisitions of BOND (Apr 2011); and Talis sold its library-specific automation business to Capita Group (Mar 4). I expect **additional companies to change ownership in 2012**. Some transitions may result in additional consolidation; others may simply involve existing investors taking an opportunity to exit and hand off companies out of their portfolios to new owners. As was the case last year, **I anticipate no business failures in 2012**. Despite a harsh economy, library automation vendors have strong resilience and dependable cash flow through annualized support and hosting fees.

It seems reasonable to **expect a resolution of the lawsuit between SkyRiver and OCLC in 2012**. The case has sat mostly inactive since April 2011, pending a judicial ruling. I have no insight whatsoever regarding what party—if either—might prevail as a result of the suit. But resolution should bring some clarity and settle some of the uncertainty that has been looming around this issue, with at least a low-level effect on this corner of the industry.

**Mobile technology will continue to attract strong interest, but it will not necessarily drive significant innovation.** Despite the ever-increasing use of mobile devices to access library services, strategic library-oriented mobile products continue to develop and see implementation at a relatively slow pace. While I do anticipate some progress in bringing better support for mobile devices to library services, I worry that progress will lag behind that of the non-library world.

I anticipate some **experimental use of Near Field Communications (NFC)**, especially in the area of patron

self-service, though not necessarily new production-level implementations. While **QR codes** continue to spark interest, I do not anticipate that they will enter the mainstream of library automation in any way that will challenge existing identification technologies such as barcodes or RFID tags. I do anticipate steady movement in the implementation of RFID-based technologies in libraries, though not necessarily any new breakthrough products.

**Cloud computing will see continued growth**, with a high proportion of new library automation projects deployed through software as a service rather than on servers housed in the library. In addition to libraries that implement the new-generation products intrinsically designed for implementation as cloud-based services, many libraries running traditional products will contract for hosting services from the vendor. The library automation economy will continue to evolve away from one driven by up-front license fees and will become one based more on annual subscriptions.

**New technologies, products, or business models related to library involvement with e-books will emerge in 2012.** We're at a critical point in the realm of library e-book lending. Last year, some of the major developments in the library e-book realm included the announcement of the 3M Cloud Library and the launch of Library Renewal (libraryrenewal.org) as a new non-profit initiative to explore issues related to e-books and electronic content. As this issue continues to build to critical importance, especially for public libraries, I anticipate some new approaches by new and existing players.

## Endeca for Library Discovery: Implications of Oracle's Acquisition

**O**racle is a giant in information technology. The company has expanded light years beyond its original database product, and is one of the key providers of infrastructure for business applications and Internet services. Oracle has executed a steady stream of strategic acquisitions over its corporate history and has acquired a large number of companies, including other giants like PeopleSoft (January 2005), Sun Microsystems (January 2010), and dozens of others. Oracle does not produce products specifically for libraries, though libraries, like any organization dependent on technology, rely on hardware and software components for their core technology infrastructure.

In October 2011, Oracle extended its reach again, with the acquisition of Endeca Technologies, a company whose technology many libraries use for their discovery interfaces. Endeca, based in Cambridge, MA, had developed technologies used by

major retail companies to power their Web sites, including catalog and e-commerce capabilities. Its core MDEX Engine can accommodate a very flexible array of data types, providing the core infrastructure for higher-level discovery and e-commerce applications. The *Boston Business Journal* reported that Oracle purchased Endeca for around \$1.1 billion.

In May 2006, Endeca Technologies was awarded a U.S. patent for its Guided Navigation experience, or more technically, a "hierarchical data-driven navigation system and method for information retrieval" (US Patent No. 7,035,864). It's important to note that patents represent a very important component of the assets gained when acquiring a company. This patent covers the basic concept of faceted browsing which currently stands as one of the principal navigation techniques in library discovery interfaces.

## Endeca: e-Retail Software for Library Discovery

Beginning in about 2004, libraries began to explore technologies and products to replace their legacy online catalogs with more modern alternatives. Many libraries saw Endeca's Information Access Platform—previously called ProFind—as well-suited to this need. It offered the capability to ingest MARC records, deliver relevancy ranked result sets, display facets to help users hone in on desired results, and other features needed to create an experience for library collections consistent with other Web destinations. Endeca did not, however, create a library-specific product. Rather, it offered a development platform that library programmers could use to construct an interface with these characteristics. The company references customers including the top names of the retail industry, including WalMart, Home Depot, Sephora, Office Depot, Eddie Bauer, and Walgreens.

With its sights set on a very broad market, Endeca addresses libraries as a rather small niche among the many different types of organizations that make use of its technologies. The Library Corporation entered into an agreement with Endeca to distribute its products to libraries. This was announced in June 2004. A number of libraries, including the Phoenix Public Library and Chicago Public Library, acquired the Endeca technology through TLC as the basis for their new online catalogs. Although acquired through TLC, the development needed to craft and implement the interface was accomplished by the libraries. TLC also offered AquaBrowser, which was a more out-of-the-box product as a library discovery solution. In recent years, TLC has backed away from direct involvement with both Endeca and AquaBrowser, instead focusing on the development of its own LS2 PAC as its new generation patron interface platform.

*Endeca, with its sights set on a very broad market, addresses libraries as a rather small niche among the many different types of organizations that make use of its technologies.*

In the academic library arena, North Carolina State University purchased the Endeca platform as the basis for their new online catalog, which they introduced in January 2006. Other academic libraries implementing Endeca-based catalogs included McMaster University, Florida Center for Library Automation, the University of Ottawa, Queen Mary University of London, and the University of Technology, Sydney. Though adopted by some very large and progressive libraries, Endeca has remained within a relatively small clique of libraries implementing new-generation discovery interfaces.

While some libraries continue to use interfaces based on Endeca technologies, the momentum for new adoption of this technology seems to have halted altogether. Many libraries that had once created interfaces based on this platform have phased them out, most often in favor of projects or products based on Apache SOLR or Lucene. Some of these migrations include the Florida Center for Library Automation, which provides automation services to all of the libraries of the public universities in Florida. FCLA has recently re-implemented its Mango catalog, moving it from Endeca to Lucene. FCLA maintains separate instances of an Aleph ILS for each campus; Mango provides a unified patron interface spanning all the campuses. McMaster University shifted from its Endeca-based catalog to VuFind in 2011. North Carolina State University, one of the first libraries to implement an Endeca-based online catalog, now subscribes to Serials Solutions Summon discovery service, as does the Uni-

versity of Toronto.

Given the waning involvement of Endeca technologies in libraries, ownership by Oracle will not have a major impact in any broad sense. For the libraries currently using Endeca technologies, there should likewise be minimal disruption. The Endeca IAP and eCommerce platforms represent the key assets of the company. Given the basic scenario where the library builds its own services and interfaces on top of the Endeca platforms, the support arrangement differs considerably from that of an off-the-shelf product. These libraries tend to be more self-sufficient in the support of their operational systems, depending on Endeca's support only for questions and issues related to programming and development.

The position of Endeca relative to its acquisition by Oracle affects only a handful of libraries. The broader trend to note is the rise of discovery products based on Apache SOLR or Lucene. Because they are open source projects, libraries can make use of the Apache components without direct licensing costs. Endeca, on the other hand, comes with significant licensing fees. As much as the cost, a great deal of library-specific code and expertise has been cultivated. Open source projects based on Apache SOLR include VuFind and Blacklight, as is the platform for HathiTrust. Commercial products using SOLR or Lucene include Serials Solutions Summon and Primo and Primo Central from Ex Libris. Sirsi-Dynix recently shifted its search engine underpinnings for its Enterprise discovery interface from GlobalBrain to SOLR.

—Marshall Breeding

## MySQL: Implications of Oracle's Ownership

A closely-watched aspect of Oracle's business acquisitions involves its ownership of MySQL, an open source relational database extremely popular among Web-based applications, including many in the library realm. Sun Microsystems acquired the database platform from MySQL AB in January 2008 for around \$1 billion. Its January 2010 acquisition of Sun Microsystems brought MySQL into the Oracle fold. The ownership of the dominant open source relational database engine by a company whose flagship product is a proprietary database technology has caused some concern in the library world.

The Koha integrated library system, for example, depends on MySQL, as do many other commercially developed products and in-house projects. Many libraries have developed applications based on the ever popular Linux, Apache, MySQL, PHP, or LAMP, stack of components. Any change that resulted in MySQL not being freely available would cause a major disruption to libraries.

To date, this ownership scenario has not been detrimental in any major way to MySQL. While Oracle does offer commercially supported versions of the product, called the Enterprise Editions, that involve annual fees, they have continued to offer a community version available without cost. Oracle has issued statements regarding its commitments regarding how it will continue to offer MySQL for free without support and has con-

tinued to enhance both the commercial and free versions of MySQL. In September 2011, Oracle announced a set of new commercial extensions that would be available only to commercial subscribers (See [http://blogs.oracle.com/MySQL/entry/new\\_commercial\\_extensions\\_for\\_mysql](http://blogs.oracle.com/MySQL/entry/new_commercial_extensions_for_mysql)). Prior to these extensions, the same software has been available to those that do not pay for commercial support subscriptions. We can anticipate wider differentiation over time with options and features offered specifically to paid subscribers, typically larger-scale mission-critical implementations.

For now, it seems that libraries can count on ongoing free access to MySQL. Some libraries may depend on MySQL in ways where the option to purchase commercial support will be a benefit. While many organizations have switched to other database platforms out of concern that Oracle might eventually make access to MySQL more restrictive, MySQL continues to flourish. One strategy that offers some insurance against such changes would involve evolving applications toward a more database-independent architecture, using connectivity layers that support the possibility of substituting any of the major infrastructure components that comprise a Web-based application.

—Marshall Breeding

## Phoenix Public Library: Blending Discovery into the Web Presence

Phoenix Public Library has used Endeca's technology in a way markedly different from its usage in other libraries. Most implementation of new-generation catalogs or discovery interfaces focuses on the search and delivery of resources in the library's collection. Phoenix Public Library used the Endeca platform to power its entire Web site, producing a unified user experience across all the different services and content resources. This library makes use of two of Endeca's products—Information Access Platform and E-Commerce—to go beyond search and retrieval in the catalog but to also promote library resources in ways similar to the merchandizing techniques seen in an online retail destination.

The library initially implemented its Endeca-based Web presence in 2007 in conjunction with its Carl.X automation system. According to Jessie Haro, Lead User Technology Specialist, Phoenix Public originally acquired the Endeca software through The Library Corporation, but after the third year of use

has licensed the software directly from Endeca. The creation of the patron interfaces based on the Endeca platform was accomplished primarily by the library's own development team. While the library has investigated the SOLR-based platforms, it plans to continue with Endeca and has recently increased its investments in this platform to include the eCommerce module.

When the Phoenix Public Library migrated from its Carl.X integrated library system to Polaris in 2007 it was able to make the transition almost entirely transparent since the Endeca presentation layer remained in place with the new system as it was with the old. One of the key requirements for this library in selecting a new ILS was that it offer the application programming interfaces (APIs) needed to support its Endeca implementation.

—Marshall Breeding

## A New Wave of Executive Management Changes

Several companies made major changes in their management in recent weeks. These changes generally reflect senior management adjustments following changes at the CEO level made earlier in the year and are part of the expected pattern of establishing management teams aligned with the new top leadership.

ProQuest made a number of management appointments in November 2011. These changes reflect the leadership team formed by **Kurt Sanford**, who replaced **Marty Kahn** as Chief Executive Officer of ProQuest in July 2011. Kahn continues involvement with ProQuest as vice-chair of its Board of Directors. Amid changes in other operating units, leadership of Serials Solutions remains steady with **Michael Gersch** continuing as Senior Vice President of ProQuest and General Manager of Serials Solutions. **Jane Burke**, though not named in an executive position, remains with the company working directly with Sanford on special projects throughout ProQuest. **Kevin Sayer** serves as President and General Manager of ebrary, the company he co-founded with Christopher Warnock in 1988, acquired by ProQuest in January 2011.

In our November 2011 issue we reported that **Bill Davidson** succeeded **Matthew Hawkins** as President and CEO of SirsiDynix. Hawkins has since become president of Vitera Healthcare Solutions, a recent acquisition of Vista Equity Partners.

EnvisionWare announced the promotion of **John Himes** as Director of Sales and Library Business Development and the appointment of **Cheryl Morgan** as Director of Professional Services, joining the company from her previous position as Assistant director for Information Technology at the Forsyth County Pub-



lic library in Georgia. Himes has been with the company since 2004. **Mike Monk** serves as CEO, a role he has held since September 2011 when **Rob Walsh** became CEO of Excalibur Solutions.

Following the major restructuring of Bibliotheca Group, **Al Coalla** has been appointed Director of Sales, replacing Lamar Jackson who has left the company. Coalla was previously held a similar position at EnvisionWare.

Follett, the giant of the K-12 schools arena promoted **Tom Schenck** to the position President and Chief Operating Officer of the of the newly formed Follett School and Library Group. Schenck's portfolio has steadily expanded. After joining Follett Software Company in 1989, he was appointed president in Febru-

ary 1998, succeeding company founder Charles R. (Chuck) Follett. In April 2010 his role expanded to the role of President of Follett Technology Solutions and International Group, overseeing Follett Software Company and Follett International. At this time Schenck also joined the Executive Committee of Follett Corporation, the parent company. The current promotion expands his portfolio to include oversight to Follett Library Resources, Follett Educational Services, and BWI. This move reflects the longstanding stable management in place at Follett, with the company cultivating long tenures of leadership rather than the quicker turnover more typical of the industry.

—Marshall Breeding

## Library Technology News in Brief

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

### SkyRiver Announces Novel Approach to RDA Adoption

December 6, 2011 — SkyRiver has announced a unique approach to implementing RDA (Resource Description and Access) that allows libraries to adopt this new cataloging standard on a schedule that fits their circumstances. Effective December 1, 2011, SkyRiver users have three options for viewing and exporting bibliographic data: RDA Mode for libraries preparing for or ready to move into an RDA environment; Hybrid Mode for libraries adopting RDA yet still having a need for non-RDA data elements for their local systems; and Non-RDA Mode for libraries not ready for RDA cataloging at this time. Libraries also may move from one mode of operation to another as they progress in their planning toward full RDA compliance.

The US RDA Test Coordinating Committee's June 2011 recommendation for national adoption of RDA no sooner than January 2013 acknowledges the reality that AACR2 and RDA coding practices will need to coexist for some time. SkyRiver's RDA support is designed to accommodate this environment by assisting libraries to position themselves for an increasingly digital world, yet at their own pace.

Along with the choice of operational mode, enhancements to SkyRiver's cataloging client now make data entry of RDA field sets simpler and more accurate. In addition, SkyRiver provides direct contextual links to ALA's RDA Toolkit, allowing catalogers to check RDA coding rules from within a MARC

record without having to log in each time a link is invoked.

Among the adopters of SkyRiver's RDA Mode are the Utah State University Libraries. Cheryl Adams, Head of Cataloging at USU, is pleased with SkyRiver's approach. As she notes, "SkyRiver's RDA support ensures that we will capture all available RDA data and easily add new RDA fields. This will help to make our transition a smooth one."

### OCLC Introduces OCLC WorldShare

December 5th, 2011 — DUBLIN, Ohio, USA, 5 December, 2011—OCLC, together with OCLC Global Council and members, is taking the cooperative's ongoing strategy to help libraries operate and innovate at Webscale to a much broader level with the introduction of OCLC WorldShare, a new platform and a new brand that signals OCLC's commitment to greater collaboration in library service delivery.

OCLC is launching the OCLC WorldShare Platform, which will enable library developers, partners and other organizations to create, configure and share a wide range of applications that deliver new functionality and value for libraries and their users.

OCLC will also deploy data centers around the world in support of OCLC WorldShare and other services. The first data center outside the United States will be implemented this week in the United Kingdom. Additional data centers will be deployed in continental Europe, Australia and Canada in the coming year.

"OCLC's mission and public purpose are clearly aligned with the concept of Webscale," said Jay Jordan, OCLC President and CEO. "We have been pro-

viding infrastructure and services that have enabled members to build efficiencies in the management of libraries, and to increase the visibility and impact of their collections in compelling user environments on the Web. To date, this work has been significant. Now we see a need to provide more of those connective elements, the services and systems that will allow libraries to leverage even more of their activities and data together, at Webscale."

The OCLC WorldShare Platform facilitates collaboration and app-sharing across the library community, so that libraries can combine library-built applications, partner-built applications and OCLC-built applications. This enables the benefits of each single solution to be shared broadly throughout the library community.

### LibLime Makes all Code Within LibLime Koha Available

November 30th, 2011 — Bethesda, MD, November 30, 2011. LibLime, a division of PTFs, announces the public release of LibLime Koha 4.8. LibLime Koha 4.8 represents the innovation, ideas, and talents of many professional librarians with whom LibLime enjoys working and with whom we look forward to a continued professional partnership in years to come.

Many of the features in LibLime Koha 4.8 were envisioned, designed, and funded by a variety of libraries including Colorado Library Consortium, National Association of Realtors, the National Science Foundation, Oyster River School District, South Central Library System, Big Country Library System, Pioneer Consortium, and West Texas Library Sys-

tem. The primary testers in a production environment were South Central Library System and Pioneer Library Consortium.

LibLime Koha 4.8 uses Plack; with the introduction of Plack to LibLime Koha 4.8 we've seen each circulation transaction complete in less than 1/3 of a second. Other features of note in LibLime Koha 4.8 include:

- A new periodicals module: giving libraries greater control and flexibility as periodicals can be centrally managed for an entire library system, while individual libraries are responsible only for their subscription(s). The subscription contains physical items owned by libraries.
- Customizable print slips: management interface for the creation, alteration, saving, and deleting of customize print slips (circulation receipts)
- Expanded hold functionality, including:
  - Ability to fill local holds first (thus reducing transportation costs)
  - Enriched holds queue report, including sort and pagination support for large list printing and functionality so a hold can be filled (triggered) or passed to another library directly from the report
  - New hold notices – for holds canceled and/or expired
- Extensive expansion to SIP2 functionality
  - SIP2 support for 3rd party applications such as Talking Tech, 3M, EnvisionWare, Overdrive, TechLogic among others
  - Recognition of item vs bibliographic level holds
- OPAC searching enhancements using the rich, accurate detail native to the MARC record and consortia-style searching
  - Use of MARC 007 and 008 fields for format display: Format section was added to the search refinements located on the left-hand side of the search results display in the OPAC and
  - Use of MARC 007 and 008 fields for advanced format limits – rather than itype or collection code
  - Creation of OPAC search groups: Staff members can add groups, and then assign their libraries to particular groups. The groups function as searching mecha-

nisms in the OPAC. For example, if your consortium consisted of three independent libraries and one library system, you could set up a group for the library system so patrons would have the option of searching all of the branches in the system.

- Consortia-level ownership of data: While using a union catalog for bibliographic and authority records, libraries can maintain ownership of or control over item level data as well as patron records and information. Ownership is managed using work groups which are defined and assigned within the staff client by the consortium's system administrators.
- Expansion of billing notice and debt collect scripts: Billing notice script generates notices directly to the patrons, while the debt collect script generates an email message to the library staff and Unique Management. The debt collect generates two types of messages, "submit" (people being newly reported) and "update" for people with changes since they were reported). These features have now been enhanced so that separate libraries in a consortium can run them independently with their own settings.
- Programming strictures and automatic exception raising for database queries. This means that instead of failing silently when there's a problem with the database code, an error is raised that demands immediate attention.

The functionality in LibLime Koha 4.8 is the work of many libraries using LibLime Koha who have sponsored new development and played a key role in the quality assurance process as well as the alpha and beta testing cycles. Following their sign off, LibLime Koha 4.8 went into production at a number of LibLime customer sites and is now approved for general release for other LibLime customers interested in upgrading. Over 100 libraries now use LibLime Koha 4.8 every day.

Additionally, LibLime makes the LibLime Koha 4.8 release readily available as a bundled package that can be downloaded and installed by libraries and other organizations. In keeping with the GPL license, the entire codebase of LibLime Koha 4.8 is also available for developers as a unified git repository in our public repository.



Smart Libraries Newsletter  
American Library Association  
50 East Huron Street  
Chicago, IL 60611-2795 USA  
Address Service Requested

---

NON PROFIT  
US POSTAGE  
PAID  
PERMIT 4  
HANOVER, PA

---

## January 2012 What's in Store for 2012

### *Smart Libraries Newsletter*

*Smart Libraries Newsletter* delivers hard data and innovative insights about the world of library technology, every month.

---

#### **Editor**

Marshall Breeding  
615-343-6094  
marshall@breeding.com

#### **Managing Editor**

Dan Freeman  
312-280-5413  
dfreeman@ala.org

### **TO SUBSCRIBE**

To reserve your subscription, contact the Customer Service Center at 800-545-2433, press 5 for assistance, or visit [alatechsource.org](http://alatechsource.org).

The 2011 subscription price is \$85 in the United States and \$95 internationally.

Production and design by the American Library Association  
Production Technology Unit.

*Smart Libraries Newsletter* is published monthly by ALA TechSource, a publishing imprint of the American Library Association.

[alatechsource.org](http://alatechsource.org)

Copyright American Library Association 2011. All rights reserved.