Smarter Libraries through Technology

What's in store for 2011

by Marshall Breeding

As a new year begins, I'm thinking about the technology trends and events that might be in store for libraries. While libraries shouldn't base their strategies on anyone's predictions, it's sometimes helpful to look forward a bit to anticipate anything that might impinge on technology planning. I see the next year as one that will continue to build on trends already in play, though there may be some new turns in the road as well.

First of all, I anticipate some **shrinkage in the overall library automation market**. The economic condition of libraries will take a bit out of the library automation industry. Even though many aspects of the economy have shown improvement over the last year, many libraries continue to deal with heart-wrenching budget cutbacks. Reports of branch closures, reductions in staff, and decreased spending on collections have, unfortunately, become common in the last year, with little hope for significant improvements within the next year or so. Given that the library automation industry depends on revenue from these cash-strapped organizations, we can expect some fallout. As branches close, for example, the associated support and software license revenues from those shuttered facilities disappear. Though some automation vendors may attempt to compensate for losses in revenues associated with the contraction of library systems through increases in other areas, the economic pressures will build, leading to changes in automation strategies that may lead to even more drastic measures.

Many libraries have turned away from managing their own automation infrastructure to participating in shared systems provided through a consortium, a regional or statewide project, or though commercial outsourcing arrangements. Others may turn to open source automation systems in hopes to reduce technology costs. Although the revenues earned in any given geographic area may decline, individual companies may see even or increased earnings through diversification into new areas of business and expansion into other countries.

Consistent with the last couple of years, **2011 will not see large numbers of new ILS adoptions** in North America. I observe that many libraries continue to defer much-needed replacement of their aging automation systems due to budget constraints and especially to the lack of technology options, including those in the open source arena, that seem to offer dramatic improvements over their legacy systems. Given that new systems that promise

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a fundamentally new approach to library automation like Kuali OLE and Ex Libris URM are not anticipated for general availability until 2012, many libraries may continue to hold off making major investments. Still, I don't expect the vendors involved to suffer greatly. Ongoing system maintenance projects provide ample revenues to sustain the companies and sales of discovery products, RFID components, and other systems and services tend to increase as big-ticket ILS sales languish. Demand for improving how patrons experience library services on the Web and the lower threshold of investment should translate into **a very strong year for discovery products**.

The legal battle between SkyRiver and OCLC will persist. The anti-trust lawsuit brought against OCLC by Sky-

River and Innovative Interfaces made major headlines last year. I think it unlikely that either party will back away from their position and it seems that legal procedures will continue through at least the end of 2011, if not through 2012. While it's possible that the suit could be dismissed by the court, it seems more likely to me that procedures will continue at least through when the time in which a trial might be scheduled. An approaching public trial may trigger a settlement. This brewing legal battle brings uncertainty to industry during a critical period for OCLC as it ramps up its all-out marketing efforts for its new Web-scale Management Services. As conservative decision-making organizations, libraries often wait for the dust to settle in such matters before making

major commitments. In the longer term, regardless of outcome, this lawsuit might benefit the industry if it can result in clarity regarding such issues as OCLC's position in the commercial library automation arena and the WorldCat record use policy.

At least one major company will see a change of ownership in 2011. The library automation industry is comprised of companies own by private equity firms or by families or individuals. A business sector of this size would naturally see some turnover in ownership every year or so with ever higher degrees of consolidation of companies. The decline in the broader economy brought the mergers and acquisitions activity to a standstill for the last two or three years. As investments made in the previous cycle mature

and as businesses seek ever more opportunities and efficiencies, we can expect at least some new activity this year. Possible actions may also involve increased internationalization of the industry where large successful corporations in other international regions seek a presence in the United States, perceived as a more lucrative market.

I do not expect any business failures in the near future. To the best of my understanding, all of the major companies in the library automation industry are healthy and profitable.

On the technology front, **libraries will embrace cloud computing more than ever**. The last few years have seen increased pressures for libraries to shift away from locally installed automation systems toward some kind of external hosting. ILS vendors push hard for libraries to adopt their software-as-a-service offerings. Pricing configurations will increasingly drive libraries to purchase new automation products as SaaS and to convert current local installations. In most cases, shifting to SaaS produces mutual benefit. SaaS subscriptions bring in higher levels of revenue to vendors than software maintenance and support fees, though somewhat offset through the investments in infrastructure and support personnel; libraries see decreased costs involved with technical infrastructure and personnel. I expect this trend toward SaaS, which is already underway, to continue and greatly expand in this coming year. Most new technology investments made by libraries will be based on software-as-a-service. In previous times, libraries had to justify the conditions in which they might turn over the operation of some aspect of their technical infrastructure to a third party. Now, libraries have to justify when it makes sense to maintain a local installa-tion. While some projects may still demand installation on local servers, routine automation components will gravitate toward outsourced arrangements. As the technology cycle continues, local installation may not even be an option; many new products are offered exclusively through software-as-a-service. The offerings of the library automation vendors will increasingly rely on infrastructure based on the cloud. Rather than maintaining their own data centers, library technology products will make use of servers and storage delivered through infrastructure-as-a-service arrangements like Amazon's Elastic Compute Cloud or other competing cloud computing platforms.

Libraries will struggle to meet demands for mobile support. Mobile computing continues to explode in the consumer arena, prompting libraries to respond with at least some services accessible by smartphones and other smaller-screen devices. The advent of the Apple iPad in recent months and the surge in sales of the Amazon Kindle and other e-readers reminds us that this new world involves delivering services through a wide range of devices and that the relative proportions of laptops and desktops will diminish. I'm hearing more and more individuals say that they could easily rely on an iPad as their primary computing device. Relative to the enormous ramifications of this shift away from full-sized devices, the ability for libraries to meet demands for mobile access to their services will be moderate at best. As long as mobile interfaces represent yet another add-on product for libraries to purchase, implement and manage, the majority of libraries may not have the resources to engage with this technology in 2011. As a more sustainable approach, I would rather see mobile support built into any patron-facing library product.

Flavors of the Decade Past

The library automation arena saw incredible change in the first decade of the new millennium. Even in an inddustry that is characterized by relatively slow movement each year, the cumulative change over the last ten years reshaped the options available to libraries in terms of the way they use technology to support their work. In very broad strokes, the following are some of the events and trends of the last decade that shaped the current state of the industry.

Open Source Library Automation takes hold

The emergence of open source library automation software represents one of the major trends that played out over the last decade, and it changes the landscape for the next. The first open source ILS to gain traction was Koha, developed by Katipo Communications, a consulting firm contracted by a group of small libraries in New Zealand called the Horowhenua Library Trust, to replace an outdated system not ready for the imminent arrival of Y2K. Following its initial successful deployment (January 2000), Koha slowly gained momentum. Its adoption by the Nelsonville Public Library (August 2002) serving Athens County in Ohio was a catalyst that sparked interest and ultimately led to its spread throughout the United States, though it has also spread worldwide. Interest in open source library automation created opportunities for the emergence of businesses specializing in related services including

installation, data migration, hosting, and ongoing support. A model of sponsored software development emerged where libraries would pay to have specific features developed for the system that could subsequently be shared by others using the software. LibLime was formed in January 2005 as the first Koha support company in the United States, gaining a steady flow of clients, including both public and academic libraries. PTFS, a well-established library technology services firm began providing support for Koha in January 2009; in March 2010 PTFS acquired LibLime. ByWater Solutions was founded in April 2009 to provide Koha-related services. Today PTFS/LibLime and ByWater Solutions stand as the largest Koha support companies in the United States, with a dozen or so other support firms operating in different geographic regions worldwide.

Evergreen, an open source ILS developed for the PINES consortium by the Georgia Public Library System, came to life in September 2006 and has since seen adoption by other consortia of public libraries as well as a few academic libraries. More recently, Evergreen has extended its reach into the high-volume municipal arena when the King County Library System in the state of Washington went live in October 2010. The Institute for Museum and Library Sciences awarded a grant in September 2009 to King County and other institutions to facilitate the adoption of open source library automation software, promoting the concept of open source software and funding non-technical infrastructure involving support, training, education, planning and project management. With many large-scale automation projects brewing, adoption of Evergreen has gained substantial momentum.

These events taken together establish open source library automation as a viable competitor to those involving proprietary licensing. Open source library automation systems still represent a minority position in the field, in terms of new selections and even more so in terms of the overall base of installed systems. It's inevitable that the proportions of libraries using open source software will increase over the next decade. Yet, proprietary ILS products continue to dominate and will likely to continue to do so into the future.

Industry consolidation

Fueled to a large extent through investments from private equity, the library automation industry has consolidated into a much smaller group of companies since the decade began. Companies that were common names in 2000 that have been absorbed include Dynix Systems, Data Research Associates, Sirsi Corporation—all now integrated into SirsiDynix; Endeavor Information Systems became part of Ex Libris Group in December 2006; Geac was acquired by Golden Gate Capitol in March 2006, with its

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library automation division emerging as Infor Library Solutions. In the school library automation arena, the decade began with the acquisition of Winnebago by Sagebrush, which was in turn acquired in July 2006 by Follett Software Company, which stands as the dominant automation company in the K-12 school arena. The consolidation of the library automation industry has been underway for two decades, resulting in smaller number of ever larger companies providing technology products in this sector.

Industry continuity

The companies that have endured for multiple decades under the ownership of their original founders also tell an important part of the story in the library automation industry. This trend speaks to both to the ability of a company to build and maintain a stable customer base, and also to steer its products through multiple cycles of technology changes. Companies in this track include Innovative Interfaces, which has been in continuous operation since 1978; VTLS operating within Virginia Tech University since 1974 and as a private company since 1985; The Library Corporation, operating under family ownership and management since 1974; Auto-Graphics, founded in 1950, has evolved its business activities from publishing, to databases, to library resource sharing and automation; Polaris Library Systems has undergone some business changes, including a separation from Gaylord Bros and a name change, but has operated continually since 1975; Follett Library Software, part of the family owned Follett Corporation, has been around since 1985.

OCLC grows as an industry force

Over the last decade OCLC has become a greater force in the library automation industry. The company has expanded well beyond its original focus on bibliographic services and has emerged as a major player in all aspects of library automation. It acquired a number of ILS products on the international front, Sisis Sunrise, Fretwell-Downing's OLIB, Amlib, as well as the LBS and CBS products developed by PICA. It also acquired OpenURL linking technology through its acquisition of Openly Informatics, and EZproxy from Useful Utilities. In addition to this arsenal of technologies gained through business acquisitions, OCLC has developed major products based on its WorldCat platform, WorldCat Local and Web-scale Management Service. In the

bibliographic services arena, OCLC grew through the acquisition of competitors, most recently RLG. SkyRiver was launched by **Jerry Kline**, the owner of Innovative Interfaces, as a new competitor in the bibliographic services arena. The decade closes with OCLC positioned as a major force in bibliographic services, resource sharing, and library automation, though dampened somewhat by the lawsuit underway initiated by SkyRiver.

The fragmentation of the integrated library system

At the beginning of the past decade, the integrated library system reigned as the dominant software for automating a library. As the decade progressed, new genres of software emerged to supplement or replace ILS functionality. OpenURL link resolvers, initiated by the commercialization of SFX by Ex Libris in 2000, help libraries manage and provide access to their expanding collections of e-journal content. Federated search utilities, including WebFeat, MuseSearch, MetaLib, and later 360 Search, also emerged early in the decade to provide simultaneous cross-searching of electronic resources. Innovative Interfaces launched its Electronic Resource Management product in 2002, followed by others in this genre such as Verde from Ex Libris (2004), Meridian from Endeavor Information Systems (2005) and 360 Resource Manager from Serials Solutions (2007). Discovery interfaces, also known as next-generation library catalogs, began supplanting the online catalog module of the ILS for end-user access to library collections and services beginning with the launch of AquaBrowser in 2002, followed by other offerings such as Encore from Innovative Interfaces, Primo from Ex Libris, Summon from Serials Solutions, EBSCO Discovery Service, BiblioCommons, WorldCat Local, SirsiDynix Enterprise, as well as open source products like VuFind, Blacklight, and SOPAC. Over the course of the decade, libraries needed to expand their portfolio of automation products to achieve comprehensive automation. As the new decade begins, projects such as Kuali OLE and Ex Libris Unified Resource Management provide a glimmer of hope that this fragmentation may eventually give way to a more systematic approach to library automation.

These broad events and trends provide context for what lies ahead. *Smart Libraries Newsletter* and its predecessor *Library Systems Newsletter,* launched in July 1981, have chronicled the library automation industry in some detail as it has unfolded for now almost three decades. As libraries formulate their technology strategies and make decisions regarding technology products or services, it's important to have the detailed information that this newsletter aims to provide.

—Marshall Breeding

New Management at SirsiDynix

A round of new senior-level executive management appointments at SirsiDynix shuffles responsibilities, but does not seem to represent drastic change for the company. Effective immediately, **Matthew Hawkins** advances to the role of Chief Executive Officer, an upward shift from his previous post as Chief Operating Officer; **Gary Rautenstrauch** becomes Executive Chairman; and **Bill Davidson** returns as Chief Operating Officer.

Matt Hawkins joined SirsiDynix in July 2007 as Chief Operating Officer, taking responsibility for customer support, consulting, and education services. His portfolio expanded as other top-level positions were consolidated. The April 2009 departure of **Keith Sturges**, President of SirsiDynix International and later Chief Sales and Marketing Officer, added the responsibility for worldwide sales and support to the COO position. Hawkins now takes full responsibility for all aspects of the day-to-day operations of the company.

Gary Rautenstrauch, CEO since June 2007, steps into a newly formed Executive Chairman role. In this new full-time

position, Rautenstrauch will concentrate his efforts toward key strategic relationships, including library customers and business partners, and will represent the company in industry groups. Unlike many exiting CEO's that take ongoing interim responsibilities, Rautenstrauch characterizes his new role as full-time and ongoing.

Bill Davison returns to the company as Chief Operating Officer, filling the role vacated by Hawkins. Davison served as SirsiDynix Chief Sales and Marketing Officer from 2003 – March 2008. In the interim Davison has served as Chief Operating Officer of Alpha Bay Corporation, founded by **Jack Blount**, former CEO of Dynix. As Chief Operating Officer, Davison will take responsibility for worldwide sales, professional services, and customer support.

Other top-level positions remain unchanged. **Talin Bingham**, Chief Technology Officer since April 2006, continues to head the software development efforts of the company. **John Gardiner** appointed Chief Financial Officer in September 2009 remains on board.

These changes in top-level positions at SirsiDynix do not necessarily signal a new direction for the company. All the principles emphasized continuity of the company's direction, with ever more focus on customer issues. Hawkins mentioned that he is especially grateful to Rautenstrauch for his mentoring and for preparing him to take on this new level of responsibility.

SirsiDynix remains under the ownership of Vista Equity

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Partners which acquired the company in January 2007. One of the key strategies of the company under Vista has been to complete business and product integration, forming one seamless company. Recent events have included consolidation of the company's development and support operations in Provo, UT, winding down the satellite offices, remnants of its antecedent companies, in St. Louis and Huntsville. On the product front, the company indicates the upcoming SirsiDynix Symphony 3.4 expected to be released before the end of the year, represents a culmination of the integration of its flagship ILS products. SirsiDynix reported that it has also seen strong momentum with Symphony, marked by its selection in 2010 by 107 libraries worldwide, including 27 new sites as well as 80 upgrading or migrating from other SirsiDynix ILS products such as Unicorn, Horizon, or Dynix.

—Marshall Breeding

Library Technology News in Brief

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

Ex Libris continues to expand its cloud-based offering with the launch of VoyagerPlus

JERUSALEM, Israel, January 6, 2011—Ex Libris Group, a world leader in the provision of library automation technologies, is pleased to announce the launch of the VoyagerPlus cloud-based service to the North American and European regions. The move highlights the increasing adoption of Ex Libris cloud-based services, as institutions around the world select the Company's integrated library systems (ILS) and the Primo discovery and delivery solution as fully managed solutions. VoyagerPlus is available to both new and existing Voyager customers who

seek the most advanced ILS capabilities together with the rich functionality of the Primo discovery solution. VoyagerPlus is fully managed by Ex Libris to provide the maximum ease of use for library staff and a lower total cost of ownership for the institution.

eBook Checkouts at Libraries Up 200 Percent in 2010

SAN DIEGO, Calif., American Library Association Midwinter Conference, Jan. 6, 2011—Libraries and schools worldwide were at the forefront of the eBook boom in 2010, as patrons and students downloaded millions of digital books for iPhone, Android, Sony Reader, NOOK, and personal computers. More than one million new users signed on to access free eBooks, audiobooks, and more from 'Virtual Branch' websites last year,

resulting in a 200 percent increase in eBook checkouts and a 52 percent increase in audiobook checkouts over 2009. To find eBooks, audiobooks, music, and video titles from a library near you, visit http://search.overdrive.com.

Key statistics for library eBooks, audiobooks, and more from OverDrive-powered digital catalogs include:

- 718 million book and title catalog pages viewed
- 15 million digital titles checked out
- 6.6 billion minutes of spoken word audio downloaded
- 400,000 copyrighted eBook, audiobook, music, and video titles available to libraries

Library users are able to download eBooks over the air directly to their iPhone, iPod touch, and Android tablet or phone, in addition to downloads for PC, Mac, and popular eBook readers. The free OverDrive Media Console apps launched with EPUB eBook support in December 2010 and helped drive new records for library mobile checkouts. Over-Drive will release an optimized iPad app with eBook support, as well as BlackBerry, with other platforms in development.

ProQuest Acquires ebrary

ANN ARBOR, Mich., January 6, 2011—As its content-unifying new search platform rolls out to libraries around the world, ProQuest has acquired acclaimed e-book pioneer ebrary, setting the stage for significant acceleration of the process of serious research. The agreement will marry both companies' inventive, user-centric technologies and add a growing pool of a quarter-million e-books to ProQuest's monumental content offerings. The combined collection will enable users to search seamlessly across multiple formats – books, journals, dissertations, newspapers, video, and more – and across eight centuries of the world's knowledge.

"This is a game-changer for global research," said Marty Kahn, ProQuest CEO. "While a natural next step has been to enhance e-book discovery for ProQuest platform users, there's also far greater potential here. We're primed for imaginative technology mash-ups that will energize users and accelerate the knowledge industry. The creative minds and deft technologists of ebrary are a welcome and fitting addition to our future-oriented business."

Founded in Palo Alto in 1999, ebrary is a fast growing leader in the rapidly evolving e-book industry, having increased its 2010 revenue by more than 30 percent over the previous year. Keys to its success are its flexible models including subscription, perpetual access, and patron-driven acquisition; a growing selection of digital books and other valuable content from some 500 of the world's top publishers; and cutting-edge technology including InfoTools and DASH!, designed by some of Silicon Valley's most talented engineers. ebrary has built a reputation for providing consistent innovation that uniquely supports the research experience, making the company a natural fit in ProQuest's mission to support global research.

Library Renewal launches new site and initiatives focused on electronic content access for libraries

Dec 31st, 2010 sees the release of a new home for Library Renewal at http://www.libraryrenewal.org. The Library Renewal web site explains the organization and its efforts, and also serves as a centralized location for community organization, outreach and communication.

The work Library Renewal is engaged in falls into three main categories including:

1. Research. Library Renewal conducts research, produces writing and creates a variety of resources and presentations that explain and point toward new, effective solutions related to libraries and electronic content access.

2. Relationships. Library Renewal forges critical relationships via a formal outreach program to key individuals and institutions working on legal, technological, and industry specific issues related to electronic content access.

3. Grassroots Community Action. Library Renewal is building an organized grassroots movement designed to support the development of an effective electronic content access and distribution infrastructure that gets econtent to library users – when they want it, in the formats they want it … though libraries. As stated on the site: "You've finally found the place where YOU can join in and share your thoughts, ideas and desire to help ensure libraries can effectively offer electronic content now … and in the decades to come."

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Smart Libraries Newsletter

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