



# Smart Libraries™

Formerly Library Systems Newsletter™

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



## Smarter Libraries through Technology

### Opportunities for Cooperative Catalog Enrichment?

By Marshall Breeding

This issue of *Smart Libraries Newsletter* features some new services available for libraries to enrich the presentation of materials through their online catalogs or discovery interfaces. In developing this article, I am struck by how much of the information expected to be presented through library interfaces for books and other materials is not part of the core bibliographic record, but must come through commercial sources.

Libraries have engaged in systematic cooperative cataloging for at least 5 decades. OCLC was established in 1967 to coordinate the creation and sharing of bibliographic records. Other national libraries and organizations have managed programs in this area for at least as long. While there are costs involved, in general terms, libraries can obtain bibliographic records for most published materials inexpensively. A library, for example, can use a Z39.50 client to obtain MARC records from the Library of Congress or other major university or research libraries with no direct cost. Many libraries receive MARC records bundled with materials that they purchase from suppliers. This cooperative model provides the bibliographic records in standard formats that libraries need to populate their integrated library systems

and their associated online catalogs or discovery interfaces.

While the standard bibliographic records created in MARC21 formats and following current cataloging conventions, such as AACR2 or RDA, provide a great deal of detailed information regarding collection items, they do not fulfill all the needs that libraries have for discovery and presentation. Most major libraries take additional measures to enrich their catalogs with additional visual or descriptive elements. In the context of the current visually rich environment of the web, a purely text-based catalog display without cover images would seem unappealing. Therefore, libraries or their online catalog vendors almost always make some arrangement to embed these images through links from an external service.

Libraries also value additional descriptive or evaluative textual information beyond what is usually available in a MARC record. A short summary of the work or its table of contents can provide additional access points and useful information to the patron. Professionally written reviews are another category of value-added content.

Having worked closely with catalogers throughout my career, I understand the issues and challenges in creating bibliographic records. There is much frustration already with minimal-level records that partially populate bibliographic services. While these basic, often vendor-supplied, records provide at least some access, many libraries prefer more complete and consistent records with full authority control.

Despite these challenges, I also worry that much of the bibliographic description needed by libraries remains in the domain of proprietary commercial services and not part of the cooperative cataloging process. Given that libraries make large cumulative investments in catalog enrichment products, it seems that there might be an opportunity for an open access

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approach as well. I am not necessarily suggesting that the routine cataloging process be expanded to include all of the additional elements provided through catalog enrichment services. However, it does seem that there could be some process and repository for libraries that are able to create these value-added visual and textual descriptive elements to deposit and make them freely available to the community. There would also need to be extensions to the bibliographic standards and transfer protocols to efficiently distribute the data.

I am not necessarily optimistic that such an open access approach would be feasible. The commercial services are well established and offer both the content and the increasingly advanced technical delivery mechanisms. There is currently a fairly vigorous level of competition in this area, with involvement from at least three major companies. In these times when interest in open access content and open source software is becoming ever more intense, it will be interesting to watch whether such interest will ever address this domain of catalog enrichment content and services.

## ProQuest Expands Strategy for Catalog Enrichment

The display of cover art has become a standard feature of online catalogs and discovery services. These images, along with other information that is not part of standard bibliographic records, are provided through a variety of services available to libraries to enrich their catalog. Libraries expect their catalogs to present attractive displays of collection items, replete with cover art, extensive descriptive information, reviews, ratings, and other evaluative content, as well as recommendations for related materials. Much of this information goes beyond the information in a standard bibliographic record, but is available through enrichment services to which a library can subscribe.

Syndetic Solutions, now part of ProQuest, is established as one of the major providers of catalog enrichment services to libraries. In October 2016, ProQuest launched Syndetics Unbound as a major revamped service, combining aspects of its original Syndetic Solutions offering with content and features from LibraryThing and delivered through a new technology platform.

The original service from Syndetic Solutions provided a variety of visual and textual elements that a library could display in their catalog or discovery environment. This service provided content that was inserted into the display of a catalog record via a snippet of HTML with a static representation of the cover art images and other enriched content elements.

LibraryThing, a service designed to manage personal collections of books and related materials, also offers a catalog enrichment service called LibraryThing for Libraries. Tapping into the data surrounding the 110 million books cataloged in LibraryThing by its members, LibraryThing for Libraries is able to provide a service offering tags, reviews, and other elements to enhance online catalog displays. Libraries subscribing to the service would modify the templates of the online

catalog of their integrated library system or discovery interface to insert the code snippets needed to display the enriched content.

Syndetics Unbound is a completely redesigned service, drawing from the content elements previously offered through these two incumbent products. Rather than static code snippets, Syndetics Unbound is delivered as a web service with more options for dynamic user interactions. This more modern and sophisticated approach allows the content to be presented through a professionally designed user interface, which is responsive to mobile as well as larger display devices. Syndetics Unbound taps into enrichment elements from both LibraryThing and Syndetics behind the scenes, which are transparently combined in the service. The initial implementation of Syndetics Unbound requires that a library upload its holdings so that the service is able to make recommendations and links based on materials available in the library.

Syndetics Unbound is offered as a comprehensive package inclusive of all enrichment elements offered by Syndetic Solutions and LibraryThing for Libraries. These elements include:

- Cover art for books, DVDs, and other materials with over 25 million images available, including automatic generation of images for items where no cover art is available
- Summaries
- Author biographies, which often include a photo
- Look Inside—selected content such as table of contents, first chapters of books, or excerpts
- Series—sequentially ordered listings of other titles within the same series
- Recommendations
- Professionally written reviews from selected publications
- Reader reviews and ratings from LibraryThing

- Tags from LibraryThing
- References to other formats in which the title is available
- Book Profiles created by Bowker staff members
- Reading level assignments, such as grade level, age, or Lexile Framework scores from MetaMetrics
- Awards
- Widget to browse shelf by call number
- Selected enrichment content for video, music, and video games

ProQuest offers Syndetics Unbound as a forward migration path for its legacy Syndetics enrichment service. Pricing for Syndetics Unbound differs from the legacy product since it includes additional content and services beyond the legacy product. The original service will continue to be offered as long as demand persists. LibraryThing positions Syndetics Unbound as a more immediate solution for those subscribing to LibraryThing for Libraries. The LibraryThing for Libraries website currently describes the ProQuest Syndetics Unbound service.

## Syndetic Solutions Background

Syndetic Solutions was founded in 2000 by Allan Graham and was headquartered in Portland, Oregon. The original offering was a MARC record enhancement service, providing additional content to bibliographic records, such as tables of contents, additional subject and genre headings, series, and plot characters. Syndetic Solutions worked with publishers and booksellers to acquire, consolidate, and disseminate data elements for books.

Syndetic Solutions was acquired by R.R. Bowker in September 2004. Bowker had been part of Cambridge Information Group since 2001; Cambridge acquired ProQuest in 2007.

## LibraryThing Background

LibraryThing was founded by Tim Spalding in 2005 as a service for individuals to manage their personal book collections. The company is majority owned by its founder. In January 2009, Cambridge Information Group, parent company to ProQuest, made an investment in LibraryThing and acquired a minority ownership stake. LibraryThing continues to operate independently with ProQuest as an important business and development partner.

Syndetics Unbound from ProQuest competes with other catalog enhancement services. Other established providers include Baker & Taylor, now part of Follett Corporation with its Content Café 2 service ([btol.com/pdfs/content\\_cafe.pdf](http://btol.com/pdfs/content_cafe.pdf)), and NoveList Select from EBSCO Information Services ([ebscohost.com/novelist/our-products/novelist-select](http://ebscohost.com/novelist/our-products/novelist-select)). Libraries also obtain specific enrichment elements from other sources. Some, for example, link to cover art images from Amazon, a practice that seems inconsistent with Amazon's terms of service. LibraryThing also offers a free book cover image service providing access to about 1 million images, but this service is used only by a small number of libraries. As with other product genres, the number of options for content enrichment is limited. It is notable that three of the largest companies in the library services industry—EBSCO, ProQuest, and Follett—have a content enrichment service within their product portfolios.

## Axiell Continues to Expand

Axiell, one of the major global companies providing technology products and services to libraries, archives, and museums, continues to expand. In North America, Axiell is better known for its technology products for archives and museums than for library systems. The company offers a diverse set of technology products, operating divisions for public libraries, for the broader archives, libraries, and museums (ALM) sector, for educational platforms, and for e-books and other digital media. In recent months, the company has made two strategic acquisitions to strengthen its position in libraries and other business areas.

In October 2016, Axiell acquired BiBer GmbH, one of the major companies offering library automation products and

services to libraries in Germany and Switzerland. BiBer GmbH was founded in 1992 and is based in Mülheim an der Ruhr, Germany. It operates an additional office in Hochheim am Main. The company develops and supports the BIBDIA integrated library system, which has been adopted by around 160 libraries spanning 320 branches, primarily in Germany with a smaller presence in Switzerland. BIBDIA has been implemented mostly by public libraries, though some school and special libraries have adopted the system.

BiBer GmbH will continue to operate independently as a wholly owned business of Axiell Group. Frank Gräfe, Managing Director of BiBer GmbH, and other executives and

personnel will continue in their existing roles. The company will continue to develop and support BIBDIA and its other established products. BiBer will expand its offerings with the new Quria library services platform, currently under development by Axiell. For more information on Quria, see the October issue of *Smart Libraries Newsletter*.

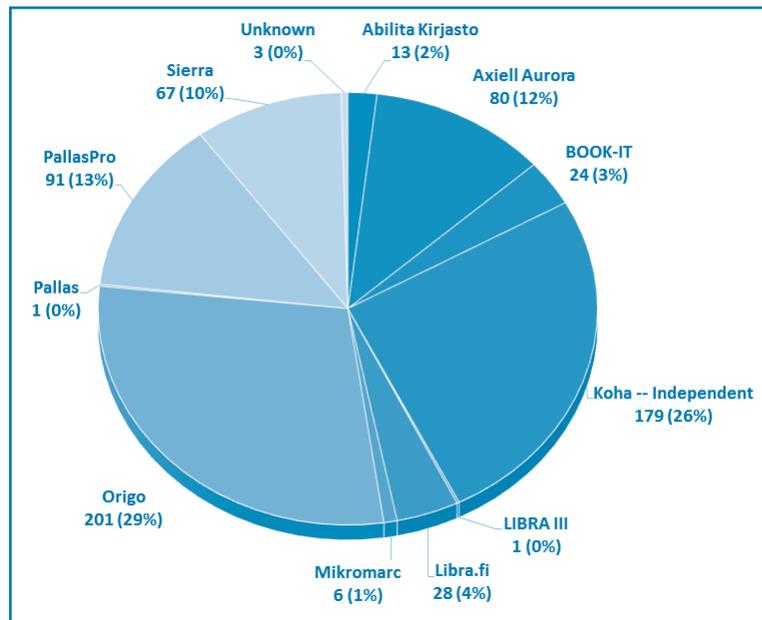
Axiell has also acquired the vital records of Gold Systems. Based in Salt Lake City, Utah, Gold Systems has developed the VITA Vital Records Application and offers services to organizations to assist with the creation of registries. These registries are populated with data such as births, deaths, marriages, divorces, and other life events.

Gold Systems was founded in 1989 by Steve Gold, who along with Jeff Greenland will join Axiell following the acquisition. This transaction involved only the Vital Records division of Gold Systems. The company will continue to operate divisions involved in Environmental Services, Aviation Safety Services, Emergency Management, and Health and Human Services. Gold Systems also recently launched LearningZen ([learningzen.com](http://learningzen.com)), an online training platform.

This move supports the increasing diversification of Axiell in its business areas related to governmental and cultural institutions outside the library sphere. An increasing portion of Axiell's business activities are focused on archives, museums, and other related organizations.

A chronology of Axiell's recent business acquisitions includes:

- October 2016: Vital Records Division of Gold Systems
- October 2016: BiBer GmbH, a German company offering the BIBDIA library management system used in Germany and Switzerland
- May 2016: Mobydoc, the major provider of management systems to museums in France
- March 2015: Elib, a Swedish e-book distribution company
- April 2014: KE Software, an Australian company with software and services for museums and archives
- November 2013: Selago Design, a Canadian firm producing the Mimsy XG collection management and user interfaces for museums
- August 2013: Atingo, which is not an acquisition, but a new startup created with Publit to offer e-book lending services
- March 2013: Adlib, a global company that produces versions of Adlib for archives, museums, and libraries
- April 2008: DS, a United Kingdom-based company offering the Open Galaxy library management system, the CALM



**Figure 1. ILS Implementations in Public Libraries in Finland by Library Facilities**

archives management system, and a co-developer with Axiell of the Arena discovery tool

Axiell Biblioteksystem AB was founded in 1985. A complex series of mergers and acquisitions began in 2001, which consolidated the major companies and library automation products used in Finland, Denmark, and Sweden, culminating in the formation of Axiell Group in 2008.

Axiell's library business has seen both wins and losses over recent years. Axiell has been the leading provider of automation systems to public and school libraries in Denmark. The majority of these have committed to implementing a new automation system nation-wide called Fælles Bibliotekssystem. In a process managed by KOMBIT, an organization that manages information technology products for various government sectors in Denmark, Systematic is developing and deploying this new automation system for public libraries and schools. Axiell continues to support these libraries in the interim. Axiell is also a key library technology provider in Finland. The company recently announced that a major new consortium has been formed to extend and consolidate implementations of its Aurora library management system. The public libraries in the regions of South Ostrobothnia, Ostrobothnia, and Central Ostrobothnia have previously used Aurora independently, but will now consolidate into a single consortial implementation and have signed a three-year contract with Axiell. Some public

libraries in Finland have committed to the implementation of the open source Koha integrated library system. Axiell continues to provide its library management systems to about 75 percent of the public libraries in Finland (see figure 1).

Axiell has expanded its efforts to increase its presence in other European countries. Its investment in the development of Spark, a set of web-based interfaces to modernize its Open Galaxy library management in the United Kingdom, aims to reinforce its position in that country. Quria is intended to provide a forward migration path for libraries using its established products, and also to help it expand into countries where it has not previously offered library management products. The broad set of countries in which it has customers for its RFID and other products can be seen as opportunities to market Quria. According to Sven Totté, Managing Director of Axiell Public Libraries, “Our growth ambition in Europe for [the] Public Library is driven by technology shifts and consolidation in these markets, where we see that the established local smaller players cannot satisfy the needs of the Public Library space. And Axiell Quria is the library platform we use to achieve this growth over time.”

Due to its diversification and expansion of its other business divisions, Axiell has seen strong growth in recent years. According to the company’s 2015 annual report, global revenues have increased steadily:

- 2012: 326 million Swedish Krona (SEK) (about US \$35.4 million)
- 2013: 340 million SEK (about US\$ 37 million)
- 2014: 406 million SEK (about US\$ 44.2 million)
- 2015: 512 million SEK (about US\$ 55.7 million)

Axiell reports that it employs around 310 personnel in 24 countries with customers in 55 countries. The company rightly asserts that it is now the largest privately owned library technology company in Europe. In the global industry, Axiell ranks in size below ProQuest/Ex Libris, SirsiDynix, Innovative Interfaces, OCLC, Follett, and EBSCO Information Services. As the company continues to expand and diversify, Axiell is an important company in the global library technology industry, even though its brand is not well established in North America.

## Ex Libris Expands its International Operations

Ex Libris, now owned by ProQuest, is well established as the dominant provider of technology solutions for academic and other research libraries. The company’s products are used in almost all geographic regions. Ex Libris operates in each region primarily through offices it owns and staffed with its own employees, though in some regions it relies on distributors or other organizations to represent its interests.

### Increased Direct Support in Eastern Europe

Ex Libris has made some changes in the way it markets and supports its products in the Eastern European countries of the Czech Republic, Hungary, and Romania. The company has previously worked with three different organizations in the area to promote its products and provide support services. Ex Libris announced in November 2016 that it is shifting to working with current and prospective library customers more directly. Previously, the company’s interests were represented primarily through partner

organizations, including MULTIDATA Praha, Ex-Lh, and Charles University. The individuals involved with supporting Ex Libris products in these organizations will become Ex Libris employees as part of its EMEA (Europe, Middle East, and Africa) division headed by Ofer Mosseri.

MULTIDATA, Praha ([multidata.cz](http://multidata.cz)), based in Prague, was previously the exclusive distributor of Ex Libris products in the Czech Republic. The company also sold and supported other technology products such as TinWeb, the latest generation of the T Series integrated library system; the MarcMan utility for manipulating bibliographic records; and other technology products used in Czech libraries. The company was founded in 1997. The Computer Center at Charles University in Prague, a long-standing implementer of Aleph, SFX, and other products, also played a role in the region, which will also shift to Ex Libris. In Slovakia, Ex Libris will continue working through its distributor, Tempest A.S.

Ex-Lh Kft ([ex-lh.hu](http://ex-lh.hu)) was the distributor for Ex Libris products in Hungary, Romania, and Armenia. The company was

*Globally, Ex Libris has established 11 wholly owned subsidiaries and works with as many as 13 distributors.*

established in 1990 and has been representing Ex Libris products since 1994. Beginning on January 1, 2017, technical support personnel working for Ex-Lh will become Ex Libris employees.

This move is consistent with previous changes Ex Libris has made in its international operations. In February 2010, Ex Libris acquired Fujitsu Services A/S, which had previously served as its exclusive distributor in Denmark and Sweden and has since worked with libraries in those countries directly through a newly established Scandinavia office. In July 2009, Ex Libris likewise acquired its distributor for Italy and Slovenia, Atlantis S.R.L. Globally, Ex Libris has established 11 wholly owned subsidiaries and works with as many as 13 distributors.

## New Data Center in China

In other international news, Ex Libris announced in November 2016 that it has established a data center in Beijing, China. Ex Libris reports that this data center will support its growing presence in China. The company has been working with libraries in China since about 2000. This data center will be available for its cloud and hosted services to its customers throughout the Asia/Pacific region. Ex Libris also operates data centers in Chicago, Amsterdam (established in 2011), and Singapore (2013).

Ex Libris reported in May 2016 that it achieved the international certification credential (ISO/IEC 27018:2014) for compliance with recommended practices related to the protection of personal identifiable information in cloud services. In April 2013, the company achieved international certification for information security management (ISO/IEC 27001:2005).

Ex Libris has thoroughly embraced software-as-services (SaaS) as the strategic deployment model for its new products. The Alma library services platform is available exclusively through SaaS. Primo is available for local hosting, though most recent implementations have been hosted. Ex Libris also offers hosted services for most of its other established products. This reliance on hosted services demands that the company operate through data centers in each of the geographic regions in which it is active and that it meets the highest standards for reliability, security, and privacy. The expanding number of global data centers and its achievement of multiple ISO standards reflect investments consistent with its strategic reliance on hosted services.

Ex Libris continues to see strong momentum of Alma in many international areas. Announcements of selections or implementations made in recent weeks include:

- The Swedish Library consortium GSLG, including Linnaeus University, University of Borås, and Örebro University, selected Ex Libris Alma and Primo in October 2016 and will migrate from Voyager and Summon.
- Jönköping University Library in Sweden will migrate to Alma from Aleph. The library has been using Primo since 2011.
- Central Queensland University announced that it will migrate to Alma and Primo from its current Virtua ILS implementation.
- Ex Libris saw its first selections of Alma in Denmark with Metropolitan University College and University College Capital.
- The Renouvaud Network in Switzerland, which selected Alma and Primo in December 2016, completed implementation of the system in September 2016, becoming the 500th live implementation of Alma.
- Charles Darwin University in Australia selected Ex Libris Alma and Primo in August 2016 and will migrate from SirsiDynix Symphony.

While Ex Libris can be seen as the leading provider of technology products and services to academic libraries, the competitive context remains intense. Ex Libris Alma has seen production use for over four years since the initial implementation at Boston College in July 2012. It has been adopted by academic libraries in the United States and in a growing number of international regions. Although leading in market share, especially among larger academic and research libraries and consortia, its position does not go unchallenged. OCLC reported in June 2016 that over 500 libraries across

***OCLC reported in June 2016 that over 500 libraries across six continents had implemented its WorldShare Management Services.***

six continents had implemented its WorldShare Management Services. Innovative's Sierra continues to be used in a large number of academic libraries, and its selection by the Florida Academic Library Services Cooperative, including 40 public universities and community colleges in the state, announced in May 2016

represents a major win in the academic library sector. SirsiDynix continues to serve many academic libraries and is building the BLUEcloud Campus suite to better serve them. The open source FOLIO project recently launched by EBSCO Information Services also targets academic libraries. With initial implementations not expected until 2018, it remains to be seen how much of an impact this new open source library services platform will make on the competitive landscape.

## Ex Libris Unbundles Discovery for Alma

One of the major trends in the academic library technology sector has been the emergence of library services platforms. These products, especially Ex Libris Alma and OCLC WorldShare, have been marketed and implemented primarily bundled with discovery services from the same organizations, Primo and WorldCat Discovery Services. This bundling arrangement has seen some resistance, especially from vendors such as EBSCO Information Services, who seek a more flexible arrangement in which libraries can choose their preferred discovery environment regardless of which resource management system the library selects.

Ex Libris designed its Alma library services platform to use Primo as its strategic patron interface. With no built-in online catalog, all discovery and patron-related features were delivered through Primo. All implementations of Alma to date have been paired with Primo. In recent months, Ex Libris has moved to a more flexible approach.

The University of Pennsylvania libraries announced their selection of Alma in September 2016. This implementation of Alma will make use of its Blacklight-based discovery environment rather than Primo. The Penn Libraries were one of the Kuali OLE libraries, but opted not to join the FOLIO

initiative. Consistent with the library's interest in open source development, using Alma with Blacklight was their preferred approach. Ex Libris has now embraced this approach, as can be seen through its sponsorship of a forum on "Open Source Discovery Layers Initiative" at the recent DLF Forum (Milwaukee, WI, November 8, 2016).

A new integration effort is also underway to enable libraries implementing Alma to use the Summon discovery service instead of Primo. Eastern Michigan University announced in November 2016 that it had selected Alma and that it would be the first library to integrate it with Summon. The Eastern Michigan University Libraries had been a development partner for the now defunct Intota library services platform from ProQuest. The library has been using Summon since 2011. This new integration will enable the library to migrate from its current Voyager ILS to Alma and maintain the user environment familiar to its patrons. This integration is consistent with the strategy announced as part of the acquisition of Ex Libris by ProQuest, which stated that both strategic discovery products from the respective companies would be continued and developed.

No specific announcements have been made for other discovery environments to be integrated with Alma.



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