Smarter Libraries through Technology

Implications of Company Ownership in the Library Technology Industry

By Marshall Breeding

Changes in the ownership arrangements of any company in the library technology makes big news. The library community has much at stake in the products and services produced by these companies. Given the deep reliance that libraries have on technology and their long budget and planning cycles, they are sensitive to any possible disruptions.

The continued rounds of mergers, acquisitions, and ownership changes must be seen in the context of an industry that continues to be fundamentally stable. In the last two decades or so, no technology company has gone out of business or filed for bankruptcy protections. The companies within the industry have seen continued gradual growth. Ongoing interest by the investment community in library companies reflects a generally healthy industry.

The companies that comprise the library technology fall within multiple categories of ownership arrangements. Some continue to be owned and managed by their founders. These companies include The Library Corporation, Biblionix, ByWater Solutions, and Keystone Systems. Follett Corporation and EBSCO Industries are large-scale companies owned by the families of their founders. Investment firms own several companies, including SirsiDynix, bibliotheca, and Civica. ProQuest has a complex ownership structure with majority ownership by the founder's family and minority ownership by private equity. Auto-Graphics is the only standalone publicly traded company, though most of the shares are held by the founder's family. The industry also includes nonprofits, including OCLC, LYRASIS, and Equinox Open Library Initiative. Though a nonprofit in the United States, OCLC's operations in Europe operate as a for-profit since library services does not fall within the activities allowed there for charitable organizations.

As I have been following the library technology industry for the last three decades, it is not apparent that any one of these ownership models has proven to be better for libraries than the others. Examples of strong development efforts and good customer service can be found within each model.

Ownership models are also not connected to software licensing. Involvement with open source versus proprietary software spans multiple ownership categories. There is no inherent connection between nonprofits and open source software. OCLC, the largest nonprofit in the industry, creates and supports proprietary software. LYRASIS, another nonprofit, provides the administrative home for many open source software projects and offers commercial support services. Equinox was launched as a for-profit company to develop and support open source software and shifted to nonprofit status in 2017. ByWater Solutions and PTFS Europe are example of for-profit companies providing support services for open source software. EBSCO Information Services, a for-profit company, is involved with both proprietary and open source software. While its internal content delivery and resource management platforms are created as proprietary software, the company has given strategic support to FOLIO as an open source initiative and has made substantial contributions to Koha.

The library technology industry has seen companies follow some common patterns. Most of the companies owned and managed by their founders have transitioned to new ownership models, usually to private equity investment firms or larger companies in the industry. Founders often seek new investors to take ownership of their business to provide an exit as they retire or pursue new projects. Notable examples include Jerry Kline selling Innovative Interfaces to JMI Equity and HGGC, the founders of Sirsi Corporation, recapitalizing the company via Seaport Capital and then selling outright to Vista Equity Partners.

Three companies were founded within universities and were eventually spun out through technology transfer processes. Ex Libris was founded within Hebrew University of Jerusalem, gained venture capital investment, and was eventually acquired by Francisco Partners, a private equity firm. VTLS was founded within the library of Virginia Tech University, which was spun off into private ownership by Vinod Chachra, who ran the company until June 2014 when it was acquired by Innovative Interfaces. Northwestern University created the NOTIS library management system in the 1960s and operated it as a business within the university until its sale to Ameritech Information Systems in 1991. Ameritech divested its library business in 1999 to an investment partnership led by 21st Century Group to form Epixtech, which later became Dynix, and was acquired by Sirsi Corporation in 2005 to form SirsiDynix.

Private Equity has had a major impact on the library technology industry. Ex Libris progressed through three rounds of private equity ownership before its strategic acquisition by ProQuest. Each round represented major investments for product development, business acquisitions, and market expansion. The consistency of executive leadership through each of these rounds is unusual, but a sign of a business strategy based on long-term growth rather than short-term profits. Vista Private Equity initially applied its playbook of containing costs and curtailing product development to SirsiDynix in a way that led to the loss of customers and a weakened reputation. Later in its ownership tenure, it moderated its positions and the company was able to retain at least some of its lost ground. Vista exited its investment in 2014 with the sale of the company to ICV Partners, which has used a gentler hand in its oversight of the company. Under the partnership investment between JMI Equity and Huntsman Gay Global Capital, Innovative did not necessarily prosper. Its sales declined and many of its academic library customers defected to Ex Libris. Innovative's recent efforts to develop a next-generation platform were too little and too late to strengthen its ability to retain or attract academic libraries.

Private equity investments are generally of limited duration. In the library technology industry, private equity investments have ranged from two to eight years. A lengthy investment term can either imply difficulty in assembling an exit or enduring interest in the portfolio company. Given this wide range, it is not possible to accurately predict when any given investment may be ready to conclude.

Exit strategies for private equity investors include selling the company to other investors or to a larger entity that will permanently incorporate it into its operations. In the library industry, companies making these types of strategic acquisitions include Follett Corporation, EBSCO Information Services, and ProQuest.

This issue of *Smart Libraries Newsletter* features another flavor of ownership. The acquisition of BiblioCommons by Constellation Software, Inc. falls into yet another category. This large publicly traded global corporation acquires technology companies across a variety of vertical markets. These companies, while fully owned by Constellation, continue to operate independently, though under rigorous oversight. Constellation follows what it calls a buy-and-hold strategy, where it never sells the companies it acquires. This ownership model promises to provide a long-term stable business environment. Expect ongoing coverage of BiblioCommons to chronicle whether the company continues its ambitious development agenda and expands its customer base.

Consolidation Takes a New Form: BiblioCommons Acquired by Constellation Software

BiblioCommons, a Toronto-based company providing a suite of applications and interfaces for public libraries, has been acquired by Volaris Group, one of six operating companies of Constellation Software, Inc. BiblioCommons has become established as a major force in the public library sector, and its products have been implemented by an impressive list of

libraries and consortia in the United States, Canada, Australia, and New Zealand. This transaction marks a departure from its status as a founder-owned company. Though BiblioCommons will continue to operate independently, it now falls under the ownership of a large multinational technology firm managing a diverse portfolio of technology and software companies. But unlike general private equity firms, Constellation has never sold the companies it acquires.

Given Constellation's approach in retaining the companies it buys, it invests only in companies with strong, long-term prospects. Constellation invests in businesses offering software and services for specific vertical markets. For some of these verticals, Constellation will make follow-on investments to expand its geographic reach or to expand into complementary products. Its portfolio companies usually retain their management teams and other personnel, though with oversight regarding financial performance. The strategic and financial oversight given by Constellation or one of its operating groups replaces that carried out through a Board of Directors of a standalone company. Its portfolio companies also benefit from access to capital and other resources needed to fulfill development initiatives or to expand marketing reach. Portfolio companies are guided by best practices for operations and marketing established by Constellation and its operating groups. This approach focuses on long-term success rather than short-term financial returns.

This ownership model differs from private equity investments, which usually involve limited terms of ownership. Many private equity acquisitions are leveraged buyouts backed by loans from investment banks that much be repaid by the acquired company. The long-term commitment implied in Constellation's acquisition strategy can be taken as a positive indicator of BiblioCommons' current position in the industry and its potential for growth.

BiblioCommons will reside within Volaris Group, which includes companies involved in healthcare, education, food and agriculture, transportation, and financial services. Volaris Group had previously established a vertical market software group for library management that includes Softlink International Software and Prima Informática.

The acquisition does not disrupt BiblioCommons' commercial independence relative to other companies offering integrated library system (ILS) software. Its products have been implemented by libraries using many different ILSs. BiblioCore has been implemented with ILS products from SirsiDynix (Symphony and Horizon) and Ex Libris (Polaris, Sierra, Millennium), Carl.X from The Library Corporation, and the open source Evergreen ILS. Although the ILS companies

would prefer that libraries use the catalog or discovery interfaces they offer, they would be even less favorable to having their customers use patron-facing services from a direct competitor. One alternative buyout scenario would have been for BiblioCommons to have been acquired by a company offering an ILS product.

Constellation Software Corporate Background

Constellation Software, Inc. was founded in 1995 and has been a publicly traded company since May 2006. Based in Toronto, Constellation holds a diverse portfolio of companies that do business in more than 100 countries with combined revenues exceeding $3 billion and more than 18,000 employees. Constellation has acquired more than 400 companies organized into six operating groups, each with a slightly different focus, including Volaris Group, Harris Computer Systems, Jonas, Vela Software, Perseus Group, and Total Specific Solutions.

Details of the Acquisition

BiblioCommons was previously privately owned primarily by cofounders Beth Jefferson and Patrick Kennedy. Jefferson and Kennedy will leave the company. Matt Goddard has been appointed the new General Manager, and cofounder Marty Tarle will keep his role as vice president for engineering. Goddard comes to BiblioCommons from Lone Wolf Real Estate Technologies. He previously served as Vice President for New Markets and Product Management for Trapeze Group, another company in the Volaris Group portfolio. BiblioCommons currently has 79 employees.

New York Public Library (NYPL) also held a minority stake in the company. Constellation has acquired those shares and those of other minority investors and is now the sole owner of BiblioCommons. NYPL had a complex relationship with BiblioCommons. It became one of the largest institutions to adopt the product, migrating from its Encore discovery interface to BiblioCore in September 2011. At that time, NYPL invested around $1 million in the company in addition to the subscription it paid for BiblioCore. In October 2015, NYPL discontinued its use of BiblioCore and reverted to Encore and other interfaces it developed locally.[1]

BiblioCommons Background

BiblioCommons was established in 2007. It specializes in applications designed for public library patrons delivered via

software-as-a-service. Its products rely on current concepts in user experience, incorporating elements of social interactions and other features that users expect from web-based services.

BiblioCommons continues work of antecedent projects led by Beth Jefferson. Cofounder Jefferson had earlier experimented with reader-engagement projects, including Book-Talk, which involved reading discussion groups conducted through an online community system in the Rose Avenue Public School in Toronto, and the Perfink Project at Toronto Public Library designed to get teens reading. The Perfink Project included an online summer reading initiative called SummerSandbox.com. These early projects validated the concept that modern web technologies could be applied more broadly in public libraries to enhance patron engagement.

The company's initial product, BiblioCore, applied the concepts from Jefferson's earlier research to create a modern discovery and access interface for public libraries. The company has since launched additional products that encompass the broader web presence of the library and to help public libraries to strengthen their engagement with their patrons via modern marketing applications.

Some of the initial funding for the development of BiblioCommons came from provincial libraries in Canada. The Alberta Library consortium, Ontario Library Association, and the Libraries Branch of British Columbia provincial government each contributed $50,000 toward the development of the service. These investments plus pre-paid subscriptions provided much of the capital needed to develop the initial prototype into a production platform.

Current Product Line

BiblioCore

The company's flagship product, BiblioCore, provides discovery and access to a library's print collections and digital resources, entirely replacing the online catalog. BiblioCore harvests bibliographic and holding data from the library's ILS and interacts with its circulation functions for the display of each item's current status. Patron account and self-service features rely on data and authentication data residing in the ILS. All these interactions are carried out through APIs and batch process between the library's local ILS and the BiblioCore platform. In support of the ever-growing involvement of public libraries with e-book lending, BiblioCommons has also developed interoperability with the major digital lending platforms. Supported services include OverDrive, bibliotheca cloudLibrary, and Axis 360. This integration enables patrons to discover, check-out, and download e-books and manage holds through the BiblioCore interface.

The development of BiblioCore began in 2006 with the initial version of the service implemented in the Oakville Public Library in Ontario in July 2008. Initial testing revealed the need to strengthen its technical infrastructure for better performance. In 2009, BiblioCommons began additional implementations on the enhanced platform. Since that time, BiblioCore has been implemented by a growing list of public libraries in the US and Canada, as well as the Christchurch City Libraries in New Zealand and Yara Plenty Regional Library in Australia. BiblioCore has been implemented in more than 239 libraries, spanning 1,100 individual branches. Many of these libraries gain access to BiblioCommons through consortial implementations.

BiblioCommons recently reengineered the technology underlying BiblioCore, shifting to a microservices architecture. Some of the components in its technology stack include a React/Redux front end and the Express/Note API gateway. Applications are developed in JRuby on Rails and Java 8.[2]

BiblioWeb

While BiblioCore replaces the library's online catalog, BiblioWeb provides a full replacement for its website. All types of content and features found within public library websites can be managed through a console designed for use by library personnel without knowledge of markup languages, style sheets, JavaScript, or other technical components. Library websites have grown to be complex applications that need to integrate diverse content sources and applications. Local development of a website involves considerable technical and human resources and must address a constantly changing suite of expectations related to preferred web design, responsive device support, and accessibility standards in addition to providing access to the many diverse applications and content resources offered by the library. BiblioWeb enables a library to focus on content and organization of its website without the need to program its underlying technical components. BiblioWeb is designed to work with BiblioCore to provide a more consistent presentation to content, whether it comes from the library's catalog or its website.

The product saw its initial deployment in 2010 based on the Drupal content management system in partnership with the Yarra Plenty Regional Library in Australia. In 2014, the product was entirely rebuilt in partnership with the Chicago Public Library. It used WordPress as its underlying content management engine, which it accessed via APIs through interfaces developed by BiblioCommons. In April 2016, BiblioCommons rebranded it as BiblioWeb. BiblioWeb v3 has since been introduced with a new page builder component. All 26 libraries currently using the product are now on BiblioWeb v3.

BiblioEvents

Libraries increasingly rely on calendar applications to manage their programs and events. BiblioEvents enables libraries to manage initial scheduling, creation of content and resources, publicity, and attendance. The software integrates with Springshare LibCal to power its room-reservation functionality.

BiblioEmail

BiblioCommons most recent product, BiblioEmail, supports a library's marketing initiatives through programmatically generated personalized email campaigns. BiblioEmail taps into content created in BiblioWeb, providing another channel for distributing information about events, resources, or relevant topics.

Another Flavor of Consolidation

Although BiblioCommons is not being merged into another company, it now comes under joint ownership with other businesses in the library technology industry. Within Volaris Group, BiblioCommons joins Softlink International and Primasoft Informática (Prima), both midsized companies offering ILSs and related products. Through its Harris Computers operating group, Constellation also owns the Jaywil Software Development and the ResourceMate ILS for small libraries.

Softlink International

Volaris Group acquired Softlink International in September 2013. Softlink offers the Oliver ILS for Schools and the Liberty ILS for special and academic libraries. Softlink has also developed the illumin research management system.

Softlink was founded in 1983 by brothers Bob Dunne and John A. Donne. It has developed several generations of library automation software, beginning with its initial offering, ALARM, which was introduced in 1985. OASIS—branded as Alice in Europe and Annie in the US—was launched in 1988 and came to be one of the most widely implemented library automation products for school libraries in Australia and other regions. In the mid-1990s, development shifted to its web-based products, Oliver and Liberty.

Nathan Godfrey joined Softlink in 2002. Godfrey previously served as its Chief Operating Officer and currently serves as the Portfolio Manager within Volaris Group. Hilary Noye currently serves as the General Manager for Softlink Education, and John Crook is the General Manager for Softlink Information Centres. Prior to its acquisition by Volaris, Softlink had a complex ownership structure with 48 different shareholders, including majority stakes by the company founders.[3]

Although Softlink has a modest presence in the US, it has gained a substantial portion of the market for school libraries in Australia and has a strong presence in many countries in Europe and other regions.

Primasoft Informática

Prima, founded in 1993, was acquired by Volaris Group in 2018. Its core products include the SophiA library automation system widely used in Brazil, with a presence in Spain and other countries, and Philos for school libraries. Although Prima does not have a presence in the US, it is a midsized library technology company for Portuguese- and Spanish-speaking countries. The company has about 140 employees and its products are used in more than 3,500 institutions globally.

ResourceMate

Constellation Software acquired the ResourceMate library management product from Jaywil Software Development in April 2017 through its Harris Computer Systems operating group.

Looking Forward

The transition from ownership and management by its founders to ownership by Volaris Group marks a new chapter for BiblioCommons. In most ways, this move should have minimal impact on the libraries currently relying on its products. The company will operate independently, and its support services and development agenda remain in place. The departure of Jefferson and Kennedy will naturally be felt, given their visionary entrepreneurship that led to the success of the company. Under Volaris Group, the company gains access to the financial capital and organizational infrastructure needed to attract more libraries to its products and to expand geographically. It will be interesting to observe whether partnerships develop among the companies that now reside within the Library Management section of Volaris Group and if the company makes additional acquisitions in the sector.

Public libraries need technology, more than ever to support their customer-facing services and strengthen their marketing efforts. BiblioCommons should continue to have strong prospects. It will be important to watch the progress of the company as it moves forward within its new corporate family.

Update on the Acquisition of Innovative by ProQuest

The acquisition of Innovative Interfaces by ProQuest featured in the last issue of *Smart Libraries Newsletter* closed on January 15, 2020 and is now finalized. Closing the acquisition begins the business and product integration process, which will play out over the next couple of years. Innovative ultimately will be incorporated into the Ex Libris subsidiary of ProQuest.

Ex Libris has named Yariv Kursh as the new General Manager of Innovative. Kursh will initially report directly to Pro-Quest CEO Matti Shem Tov, though ultimately reporting lines are expected to transition to Ex Libris. Kursh joins ProQuest from NICE, ltd, where he served as the Vice President for Pre-sales and Partner Sales. Several other Ex Libris executives have previously been part of NICE, including Eric Hines (President Ex Libris USA), Bar Veinstein (President Ex Libris), Shlomi Kringel, (Corporate VP Learning and Research Solutions), Dvir Hoffman (Corporate VP Resource Management Solutions), Ofer Mosseri (Corporate VP and General Manager for EMEA), and Zov Benzvi (VP Asia Pacific).

The incumbent executive team headed by Shaheen Javadi-zadeh will exit the company. Ex Libris has asserted its commitment to supporting all the products from Innovative that have been implemented in libraries. This does not, however, include the Inspire Discovery product that remained in the development and testing phase. As previously reported, Inspire Discovery had been released to two libraries for beta testing but was not implemented as a production service.

EBSCO Information Services and Innovative Interfaces have had a partnership agreement since 2012 for the sales and integration of EBSCO Discovery Service with the Encore discovery interface. The coupling of these products was branded as Encore Duet, launched in April 2014. This partnership agreement was dissolved in mid-2018 when Innovative launched Inspire Discovery, a direct competitor to EBSCO Discovery Service. The unwinding of this agreement was contentious, even involving litigation (Case 1:19-cv-11345 that Massachusetts District Court filed in June 2019). The case was settled with undisclosed terms just prior to the close of the transaction for the acquisition of Innovative by ProQuest. Following the dissolution of the partnership agreement, libraries currently using Encore Duet will continue to be supported, though Innovative will no longer initiate or renew licenses for EBSCO Discovery Service, which will be handled directly by EBSCO.

Going forward, it is expected that Primo or integration of the Ex Libris Central Discovery Index will be offered to academic libraries using Innovative's ILS and discovery products.

Libraries using Innovative's products will continue to receive support, initially through the same channels as before the acquisition. Although this acquisition has massive implications for the library technology industry as a whole, it does not necessarily imply disruption for the libraries currently using the products of the respective companies. Further developments will be covered in *Smart Libraries Newsletter* as they unfold.

Smart Libraries Q&A

Each issue Marshall Breeding responds to questions submitted by readers. Email questions to Samantha Imburgia, Managing Editor for ALA TechSource, at simburgia@ala.org.

Many libraries used shared accounts to log into staff computers at public service points. Can you discuss benefits and risks with this and also share your recommendation on using shared accounts versus individual user accounts?

Many libraries find it convenient to use a generic account for computers at service points. This practice makes it easy for different staff members to perform routine tasks without the need to continually switch user accounts. In most cases, using a generic account in this way does not introduce any security risks or other concerns. But here are some issues to consider.

Computers at service points operate with at least two levels of user accounts—one associated with the computer's operating system and the other with the software for the ILS and related applications. The generic operating system account used for service points should be highly restricted and not have access to shared files and documents. The account for the ILS would be configured to access the least possible features

needed to perform tasks associated with that service point. At a service point designated primarily for circulation, tasks related to other modules, such as cataloging and acquisitions, would naturally be disabled. Some limited editing capabilities might be enabled such as the ability to create a temporary record for items presented for borrowing that may not have a record in the system.

Other common scenarios involve the need to access additional functionality beyond that configured for a generic service desk account. Some transactions may need special permissions such as the ability to forgive fines, extend loan periods, or make changes to bibliographic records. Some ILS products handle these scenarios by prompting for an override password that could be entered by a supervisor for one-time access to a restricted function. Otherwise, it would be necessary to have a fast way to log the application in with an account associated with a higher level of permissions.

Using a generic account usually works well for collecting statistics and analytics. It is usually important to capture the number of transactions conducted at a given service point rather than by the staff members. Whether it is through a generic account dedicated to a service point or other staff accounts used, it is important to be able to gather comprehensive statistics for each service point. There should be no impact regarding the data recorded for patron transactions and the treatment of personally identifiable data.

The situation changes if staff members need to perform other types of tasks with the computers at the service points. During periods of inactivity, a staff member may need to work on reports or other activities that require access to the library's shared file system. In these cases, it should be possible for the service desk computer to be logged into that staff member's network account. It is important that the computer be returned to its generic account when that staff member is not present.

Another level of account access involves services accessed through the computer's web browser. It's common for staff members to access email, social media, and other accounts while stationed at a service desk. In most cases, this should not interfere with service desk transactions. The main concerns involve accidently enabling access to a staff member's personal or work files by others that may subsequently use that computer. Once logged in, sessions on these services can be quite persistent. Even if the browser window or tab is closed, the account may still be active when relaunched. Practices to address this issue would include using incognito mode when signing into other accounts, explicitly logging out when leaving the station, and enabling security policies that automatically clear the browser's cookies and cache when exiting the web browser.

These options cover just some of the issues related to computers at library service desks. While the specific procedures may vary, these computers should be managed in the best ways that ensure the capture of any needed statistics and to protect the security of patron, staff, and institutional data while optimizing their efficiency to best provide the services for the public for which they are intended.

Notes

1. See New York Public Library, "Changes to the Library's Online Catalog," https://www.nypl.org/online-catalog -changes.
2. See Huma Zafar, "Introducing BiblioCommons Engineering," BiblioCommons, Coding the Commons (blog), October 12, 2017, https://www.bibliocommons.com/blog /2017/10/12/introducing-bibliocommons-engineering.
3. See the Volaris Group case study, Softlink, September 10, 2019, https://explore.volarisgroup.com/volaris -group-case-studies/softlink.

ALA TechSource
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March 2020
Smarter Libraries through Technology

Smart Libraries Newsletter

Marshall Breeding's expert coverage of the library automation industry.

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