I continue to see in almost all of my encounters with technology use in libraries an ever-increasing reliance on cooperative efforts to find ways to gain more efficiencies, lower costs, and make a greater impact on patron services than possible alone. This spirit of cooperation seems well rooted in most library organizations.

So many of the projects about which I have written for Smart Libraries Newsletter revolve around technologies that enable libraries to share resources and collaborate. In the September 2012 issue, I described Illinois Heartland Library System strategy to consolidate multiple regional library systems and to implement one of the largest shared ILS imple-
The Kōtui project reflects another aspect of library cooperation in New Zealand. Born of a collaboration among the National Library, the Association of Public Library Managers, and the Local Government New Zealand, Kōtui provides a shared library automation environment available to public libraries throughout the country. The project launched in 2009 to provide a hosted integrated library system, discovery interface, and wide area network connectivity. Following an extensive procurement process, Kōtui selected SirsiDynix Symphony as the ILS component along with EBSCO Discovery Service. Computer Concepts Ltd., based in Wellington, New Zealand provides hosting services. To date, 41 libraries across 12 library services have subscribed to Kōtui, with a few other prospective subscribers and implementations underway. Though not necessarily positioned to support all of the public libraries in the country, Kōtui has provided an opportunity for many libraries to gain access to a modern library management environment at an affordable cost.

New Zealand provides another example of libraries consolidating into a shared library automation environment. In Auckland, the largest city in the country, automation systems previously operated by seven separate councils joined in a single Millennium ILS that serves the 55 library branches throughout the entire metropolitan area.

Another initiative, called Te Puna, provides cataloging and resource sharing services to all libraries in New Zealand. The National Library maintains a union catalog of all materials held in the country using an Ex Libris Voyager ILS that is synchronized continuously with WorldCat. Libraries can use cataloging clients provided by Te Puna to create new records in the national union catalog and to bring records into their local systems. Librarians follow a common set of cataloging standards to maintain consistency and quality. An optional service, called OSMOSIS and based on software developed by the MARC of Quality, is available to streamline the workflow of sending records to the national union catalog. Te Puna also includes an interlibrary loan service based on OCLC’s VDX software and jointly operated by the Library and Information Association of New Zealand Aotearoa and the National Library. An Interloan Billing System manages the invoicing for lending fees. New Zealand, as a relatively isolated country, has put into place a variety of initiatives that foster strategic cooperation.

It is also interesting to observe the ILS products used in New Zealand. The international products familiar in North America are well represented. Millennium finds use in the larger public and academic libraries. SirsiDynix Symphony sees extensive adoption both through Kōtui and other independent implementations. Carl.X is used in the Wellington City Libraries. Koha has been implemented by at least 6 library services serving 27 branches. Spydus from Civica finds use in both public and academic libraries in New Zealand. Spydus was marketed in the United States in the 1990s, but achieved very little traction. Softlink’s Liberty ILS is popular with public and academic libraries. Some products used in New Zealand libraries not seen in North America include eLM from Contec Group, NCS Library System from Napier Computer Systems, and MUSAC Library Manager. The library automation scene in New Zealand seems similar to what I have observed in almost all other international regions where the internationally-based systems increasingly dominate at the expense of local providers. The organizations that develop library automation systems for a specific country or region often do not have the resources for the level of ongoing development needed to keep up with the continual changes in preferred technology architectures or with the shifts in library requirements. For better or worse, I see library automation to be increasingly dominated by a relatively small number of large companies, each with broad international reach. New Zealand seems quite consistent with this trend.

OCLC Launches WorldShare Metadata Collection Management

OCLC continues the expansion of new applications available on its new strategic WorldShare Platform with the release of WorldShare Metadata. WorldShare Metadata collection management joins other major applications that OCLC has developed on its new WorldShare Platform, including WorldShare Management Services, which offers functionality to displace a locally-installed integrated library system, and WorldShare License Manager, which provides tools for managing a library’s subscriptions to electronic resources.

The functionality in WorldShare Metadata collection management automatically generates MARC records that can be loaded into their local integrated library system, reflecting cur-
rent licensed or purchased e-book and e-journal packages. It provides an alternative to MARC delivery services, such as MARCit from Ex Libris, 360 MARC Updates from Serials Solutions, or Bibliofile OnDemand from The Library Corporation. It can also replace the need for libraries to receive and load record MARC sets directly from the providers of resources.

WorldShare Metadata collection management provides a set of administrative tools delivered through the WorldShare Platform. It uses the WorldCat knowledge base, containing data regarding the individual titles associated with a given subscription package, and WorldCat, as the repository of MARC records.

OCLC maintains the WorldCat knowledge base to provide current data regarding all of the packages of e-resources to which libraries subscribe. The specific holdings of any given package change continuously, making it extremely burdensome and inefficient for each library to manage this data separately. Such knowledge bases underlie OpenURL link resolvers and many electronic resource management products. OCLC uses the WorldCat knowledge base as part of the link resolution built into WorldCat Local and as one of the components of its WorldShare License Manager. Ex Libris, Serials Solutions, and EBSCO offer knowledge bases with similar scope and function. The Kuali OLE project and JISC are working collaboratively to create the Global Open Knowledgebase (gokb.org).

Through a profiling tool provided through the WorldShare interface, libraries using the WorldShare Metadata collection management would select the specific packages for which they want to receive MARC records. If a library does not purchase the complete run of titles available in a package, it can select individual titles. A new feature, expected next year, would allow libraries to create new collections in the knowledge base and to specify the associated WorldCat records. The library can also specify delivery options, for example, the flavor of records needed by their ILS, such as MARC21, UTF-8 encoding, Unicode, MARCXML, or qualified or unqualified Dublin Core, or MODS. The library can also specify any MARC tags it requires to be removed from or added to incoming records. The library can specify a global value for the 856 subfield Z, for example, as the public note that would carry the link on a display page.

One of the key features of the service includes providing URLs in the records with the correct links to connect patrons to the resource through the library’s online catalog or discovery environment. All existing links coded on the 856 tags of the master record will be removed and replaced with the one that corresponds to the version to which the library has access. The URL for the library’s proxy server can be automatically and globally prepended to the URL if needed. If the library has access to a resource through multiple packages, additional URLs can be added to the records accordingly.

In addition to the delivery of records, the service also automatically updates the holdings statements on WorldCat for the records. The library’s OCLC symbol is automatically added for records matched in their profile and removed if the title is no longer offered within the subscription, or if the library cancels the subscription.

Once the profiles have been activated, OCLC will deliver the corresponding records to the library through its FTP server. Following the initial delivery, new records will be provided each day to represent items that have been added or removed from any of the content packages to which the library subscribes. The library will receive daily reports of the records processed through the service, along with monthly reports summarizing overall activity.

WorldShare Metadata collection management is designed for electronic resources, especially e-book packages, where the libraries generally acquire titles in bulk rather than individually. The copy cataloging process used for individually purchased books—transferring single records from WorldCat and loading or overlaying them into their local ILS—is not feasible when the library
purchases tens of thousands of titles at a time from an e-book supplier.

The effectiveness of WorldShare Metadata collection management depends on collections being represented in the WorldCat knowledge base and the corresponding records available in WorldCat. The completeness of the record sets available through this process varies, but will be comprehensive for many ebooks, especially if OCLC provides the cataloging service for the e-book provider. The number of collections represented and the completeness the MARC records available in WorldCat will continue to increase.

Libraries may also have options to receive record sets directly from the providers of the e-content packages. These vendor-provided records may vary in completeness and quality and may lack the OCLC control number needed to set the library's holdings on WorldCat. The WorldCat knowledge base currently includes more than 50 e-book packages, representing 9.6 million titles.

OCLC makes WorldShare Metadata collection management services available without additional costs to libraries that subscribe to its cataloging service. Libraries need to activate their access to the WorldCat knowledge base if they haven’t previously done so and then establish their subscription profiles using the WorldShare interface.

WorldShare License Manager, a full electronic resource management system, requires an additional subscription purchase. The use of WorldShare Metadata collection management does not require that the library subscribe to WorldCat License Manager.

Most libraries that subscribe to OCLC’s WorldShare Management Services would not have a need for the MARC record delivery of WorldShare Metadata collection management because these libraries would not operate a local ILS. However, the service can deliver MARC records for use in union catalogs or discovery interfaces, and it can automatically update WorldCat holdings in e-materials represented in the WorldCat knowledge base.

OCLC worked with a number of libraries to pilot the service, including the Sladen Library of Henry Ford Hospital, Drexel University, Southern Methodist University, McGill University, and The Ohio State University Libraries.

WorldCat Resource Sharing to Become WorldShare Interlibrary Loan

As part of its ongoing strategy to consolidate its services on the WorldShare Platform, the current WorldCat Resource Sharing service will become WorldShare Interlibrary Loan. Testing of the new environment was completed in August 2012, and a phased shift to production use will take place in 2013, with a complete transition expected by the end of the year.

In the initial phase of the transition, the differences seen by library personnel that use the service will be largely cosmetic. Rather than the current interface design, based on FirstSearch, library staff members will see the menu structures and placement consistent with other services based on the WorldShare Platform, such as WorldShare Management Services. All existing functionality offered will be preserved.

The initial roll-out of WorldShare Interlibrary Loan will include some new capabilities. Through the new platform, lending libraries using WorldCat Local as their discovery system will be able to display the current availability of a requested item in the WorldShare ILL workflow. Knowing the current status of an item offers a more efficient lender workflow. Borrowing workflow capability will be added at a later date. Other new features include the ability to view lender fees through integration with OCLC’s Policies Directory.

The transition to WorldShare Interlibrary Loan will not require libraries to perform any data migration. The same underlying transactional database and WorldCat records that underlie the current service will simply be accessed through a new layer of business and presentation software.

The transition will be transparent for libraries that use ILLiad to manage their interlibrary loan requests. The OCLC Resource Sharing API used by ILLiad will remain constant.

Although the new functionality offered in this initial deployment of WorldShare Interlibrary Loan is relatively minor, the move opens up the possibility for ongoing development in the future. This service will benefit from residing on the platform that is the focus of OCLC’s strategic development and from the functionality available in related applications.

Library patrons will use WorldCat.org or their library’s instance of WorldCat Local for discovery and to place requests. Much of the end-user access to WorldCat Resource Sharing current comes through the FirstSearch interface, which is being phased out in favor of enhanced searching capabilities integrated into WorldCat.

This change falls within the overall context of OCLC’s strategic consolidation of its many products and services to fewer platforms. The WorldShare Platform stands as the shared business infrastructure through which OCLC will deliver the applications and services used by library personnel. WorldCat, including the WorldCat knowledge base, serves as the shared content resources that underlie these services.

—Marshall Breeding
VuFind 2.0 Beta Released

VuFind, the open source discovery interface initially developed by Falvey Memorial Library at Villanova University, has been widely adopted, seeing use in hundreds of libraries throughout the world. A few of its major implementations include the catalog for the National Library of Australia, the CARLI Consortium in Illinois, the University of Georgia Libraries, the public libraries in BiblioRedes network in Chile, the Douglas County Libraries in Colorado, the Upper Hudson Library System, the University of Leipzig, and many others. Many libraries have implemented VuFind as replacements to the online catalog modules delivered with the integrated library systems; some have integrated other types of content in addition to their traditional collections. VuFind has proven itself as a very flexible and powerful library discovery interface.

VuFind provides a modern search interface with key features such as relevancy-ranked search results and faceted navigation. It relies on open source infrastructure components such as Apache SOLR, the MySQL relational database, and the YAZ 3.950 toolkit from Index Data. It uses PHP as its development language. As open source software, VuFind software is available for libraries to download, make modifications, and use without licensing costs.

The initial development of VuFind was led at Villanova University by Andrew Nagy under the leadership of University Librarian Joseph P. Lucia. Nagy left Villanova University in 2009 for Serials Solutions to help market and develop its Summon discovery service. Although Villanova continues to coordinate the development of the software, programmers from other libraries also make contributions.

The initial beta version of the software was released in July 2007. Following a long beta period, which included some production implementations, Version 1.0 was released in July 2010. This version included enhancements such as support for record formats other than MARC, an interface for mobile devices, a recommendations feature, and integration with the Summon index. Version 1.1, released in March 2010, introduced such new features as auto-suggestion, highlighting of keywords in search results, ability to browse headings, and improved capabilities for patrons to manage lists, as well as bug fixes and increased support for the integration of content through APIs. VuFind 1.3 was released in January 2012 with incremental enhancements and technical improvements.

The development team at Villanova University, led by Demian Katz, has been working on a major new release of the software that brings substantial improvements to the product, both in features and in technical architecture. The redevelopment was also needed to remove some components that have since become deprecated. The new version of VuFind has been built upon the Zend Framework 2.0 (framework.zend.com), in which developers create PHP applications using object-oriented coding conventions. This new architecture is expected to make VuFind easier to install, maintain, and extend.

VuFind is not the only option for libraries interested in an open source discovery interface. Blacklight, originally developed at the University of Virginia, provides an alternative based on the Ruby on Rails development environment. Like VuFind, Blacklight relies on the Apache SOLR for search and retrieval. In addition to its use at the University of Virginia, Blacklight has been implemented by other academic libraries, including Stanford University, Johns Hopkins University, and Columbia University.

VuFind has been a very successful open source project in the library arena. It arose at a time when many libraries were anxious to replace stodgy online catalogs with new interfaces more consistent with modern expectations for search and presentation of information resources. Proprietary products, such as AquaBrowser, also aim to fill the same niche of providing a new discovery interface for an integrated library system. Many libraries also populate these discovery interfaces with metadata from other collections not managed by their ILS.

The key challenge for VuFind lies in the major trend toward the adoption of discovery services based on managed indexes pre-populated to search a library’s subscriptions to electronic resources in addition to their physical collections. These Web-scale discovery services are seeing increased adoption, especially in academic libraries that make large investments in electronic content. Some libraries, including Villanova University, use VuFind as the primary search interface in conjunction with results delivered through one of the Web-scale discovery services, such as Serials Solutions Summon. This approach allows the library to create a customized search environment, though it does not necessarily result in financial savings.

For more information on VuFind development, see http://vufind.org/wiki/vufind2:start.

—Marshall Breeding
EBSCO Forms Partnership with Capita

The August issue of *Smart Libraries Newsletter* included a feature on several partnerships EBSCO had developed to integrate its EBSCO Discovery Service with ILS products from a variety of vendors. Among the four major providers of Web-scale discovery services, which also include Serials Solutions, Ex Libris, and OCLC, EBSCO stands out as the only one not also offering a new-generation library management product. EBSCO’s strategy to increase the penetration of its discovery product focuses on forming partnerships with ILS developers.

EBSCO has formed yet another partnership, this time with Capita, the UK-based firm that acquired the library automation products of Talis. Through this new agreement, Prism, Capita’s discovery product based on the Talis Platform, will be integrated with the EBSCO Discovery Service. This arrangement will allow libraries using Prism to offer integrated results from EBSCO Discovery Service along with their local holdings. This capability would be available to libraries using Prism that also subscribe to the EBSCO Discovery Service.

This agreement with Capita builds on those already in place with SirsiDynix, Innovative Interfaces, and OCLC, leveraging the EBSCO Discovery Service API released in June 2012.

—Marshall Breeding

Library Technology News in Brief

**Serials Solutions announces second development deployment for Intota Library Management Solution**

SEATTLE, Wash. – October 3, 2012 – Serials Solutions, a Pro-Quest business, announced its six Development Partners are actively using and providing feedback on the second iteration of Intota, a web-scale collection management solution for academic and special libraries. Integrated with a newly structured knowledgebase, this code drop represents another milestone toward interoperability with other information systems and unified, intelligent workflows.

Functionality within this second release to Intota Development Partners includes:

- End-to-end ability to acquire material in a more efficient manner, with flexible purchase order creation and management, plus new capabilities for acquisitions budget management, fund management and financial reporting.
- Simultaneous search and retrieval of electronic and print records from the library’s own catalog and the Serials Solutions Knowledgebase, resulting in unified resource management, acquisitions, and cataloging functions.
- Customizable user management features, including staff user accounts and organizational definitions to support a multi-tenant environment, which results in a more flexible and reliable system.

**Auto-Graphics partners with FastPencil to power libraries with book publishing capabilities**

POMONA, Calif. – October 3, 2012 – Auto-Graphics, Inc. and FastPencil today announced a partnership that provides library patrons with access to FastPencil’s book publishing platform through its Library Management Platform. Library members will have the ability to use FastPencil’s publishing platform to write, design, publish and sell books in print and digital formats directly through their local libraries.

“We are excited about the prospect of changing the way people view the role of their libraries and we believe that self publishing presents just that opportunity,” said Robert Brown, EVP of Auto-Graphics.

FastPencil’s platform provides aspiring and experienced authors with the technology to publish any quantity of books with ease, have control over their content, and enjoy higher margins for revenue and increased speed to market. To start, a select
group of Auto-Graphics’ customers will have access to the publishing engine and over time, patrons of the 5,500 libraries working with Auto-Graphics will have the freedom and power to publish quality books. The service is available as a standalone product or seamlessly integrated into Auto-Graphics’ VERSO ILS, SHAREit interlibrary loan solution or SEARCHit federated search product.

For more information visit - www4.auto-graphics.com/web_newsevents/fastpencil.asp.

California Digital Library and Partners Launch DataUp

October 2, 2012 – The University of California's Digital Library (CDL) and its partners launched DataUp, a free data management tool.

Researchers struggling to meet new data management requirements from funders, journals and their own institutions now can use the DataUp Web application and a Microsoft Excel add-in to document and archive their tabular data.

“DataUp will change the way scientists do their work, making it easy for them to manage and preserve their spreadsheet data for future use,” said Bill Michener, principal investigator for the DataONE project.

Scientific datasets have immeasurable value, but they are useless without proper documentation and long-term storage. Data sharing also is strongly encouraged in the scientific community but is not the norm in many disciplines, including Earth, ecological and environmental sciences. DataUp addresses these issues.

CDL partnered with the Gordon and Betty Moore Foundation, Microsoft Research Connections and DataONE to create the DataUp tool, which is free to use and creates a direct link between researchers and data repositories. CDL also announces today that the DataUp project has been contributed to the Outercurve Foundation's Research Accelerator Gallery.

The DataUp add-in operates within a program many researchers already use: Microsoft Excel. The Web application allows users to upload tabular data in either Excel format or comma-separated value (CSV) format. Both the add-in and the Web application allow users to:

- Perform a “best practices check” to ensure data are well-formatted and organized
- Create standardized metadata, or a description of the data, using a wizard-style template
- Retrieve a unique identifier for their dataset from their data repository
- Post their datasets and associated metadata to the repository.

Although hundreds of data repositories are available for archiving, many scientific researchers either are unaware of their existence or do not know how to access them. One of the major outcomes of the DataUp project is the ONEShare repository, created specifically for DataUp, where users can deposit tabular data and metadata directly from the tool.

An added advantage of ONEShare is its connection to the DataONE network of repositories. DataONE links existing data centers and enables users to search for data across participating repositories by using a single search interface. Data deposited into ONEShare will be indexed and made available by any DataONE user, facilitating collaboration and enabling data re-use.

“DataUp is uniquely positioned because it improves the quality and documentation of data in Microsoft Excel, the tool of choice for many researchers who would otherwise not participate in data preservation initiatives,” said Matthew Jones, director of informatics at UC Santa Barbara’s National Center for Ecological Analysis and Synthesis. “Scientific synthesis will benefit tremendously from the infusion of these small but information-rich data sets from Excel into the DataONE ecosystem of shared data.”

CDL envisions the future of DataUp directed by the participating community at large. Interested developers can expand on and increase the tool’s functionality to meet the needs of a broad array of researchers. Code for both the add-in and Web application is open source and participation in its improvement is strongly encouraged.
November 2012
Progressive Trends in New Zealand

Smart Libraries Newsletter

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

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