Next Generation Library Management Systems and Electronic Resource Acquisitions

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This report summarises the discussions I had with staff from the University of Pennsylvania Library (Kuali OLE), Princeton University Library (ExLibris Alma), and The University of Tennessee at Chattanooga Library (OCLC WorldShare) about their next (or second) generation library management systems when I visited them in late August 2012 as part of the 2011 CAUL International Travelling Fellowship. This report also notes lessons that Curtin and other Australian University Libraries can learn from the experiences of these libraries.

Introduction

An investigation into the experiences of some of the early adopters of the next generation library management systems was chosen because of the work that Curtin University Library had done during 2010 and 2011 to monitor the Library System market. This research and my own experiences in working with numerous discrete systems to manage electronic resources had highlighted the need for libraries to streamline their electronic resource acquisitions processes and workflows and identified that next generation library management systems would have a big part to play in this.

Wilson (2012) gives a good summary of the five Next Generation Library Management Systems that are being developed – Alma by Ex Libris; Sierra by Innovative Interfaces, Inc.; OLE by the Kuali Foundation; WorldShare Management Services by OCLC; and Intota by Serials Solutions.

I chose to visit early adopters in the US of the three systems that had been in development for the longest period of time. This meant that I did not visit any sites that were working with Innovative Interfaces (Sierra) or Serials Solutions (Intota).

The aim of my investigation was to identify benefits of Next Generation Library Management Systems in streamlining electronic resource work processes, and to establish how Curtin and other Australian University Libraries could learn from the experiences of these early adopters of Next Generation Library Management Systems to streamline electronic resource acquisitions processes and workflows.

Unfortunately only one of the sites (the University of Tennessee at Chattanooga Library) that I visited had implemented their system. The other two were some way

off: Princeton University Library had delayed its implementation of Alma until June 2013; and The University of Pennsylvania Library intends to implement OLE in June 2014.

As the University of Pennsylvania Library and Princeton University Library had not yet implemented their systems or looked at their workflows, and as the University of Tennessee at Chattanooga Library has not done a lot with electronic resources I have not been able to discuss in detail the impacts of OLE, Alma or WorldShare on electronic resource acquisitions processes and workflows. However, there are still valuable lessons that Curtin and other Australian University Libraries can learn from the experiences of these early adopters.

Monday 27th August – The University of Pennsylvania Library (Kuali OLE)

Kuali OLE Product Information

Kuali is a growing community of universities, colleges and commercial firms partnering to build and sustain open-source software for higher education, by higher education. OLE is one of eight software projects. (Kuali Foundation, 2012a) Kuali OLE is the first system designed by and for academic and research libraries for managing and delivering intellectual information. The Kuali OLE Project is funded by contributions of the Kuali OLE Founding Partners and a $2.38 million grant from the Andrew W. Mellon Foundation for the initial two-year (2010-2012) development cycle. (Kuali Foundation, 2012b)

Kuali OLE and JISC are jointly working on the Global Open Knowledgebase (GOKb). "GOKb will be an open, community-based, international data repository that will provide libraries with publication information about electronic resources. This information will support libraries in providing efficient and effective services to their users and ensure that critical electronic collections are available to their students and researchers." (GOKb, 2102) " The GOKb cloud service will provide data for "subscribed resources" from a higher education perspective. It will include data such as publication information, related organizations, and model licences, and will be accessible across all US and UK academic libraries." (GOKb, 2102)

University of Pennsylvania Library

The University of Pennsylvania Library are one of the founding partners of Kuali OLE. Carton Rogers is on the OLE board, and Michael Winkler and Beth Camden are on the OLE Functional Council. (Kuali Foundation, 2012c). They have 24,832 students; 6.01 million books volumes (print); 4.21 million microform items; 105,721

serials received, 564,608 e-books; 89,041 e-journals, 1.04 million digitized images; and 28,852 videos (University of Pennsylvania, 2012).

Van Pelt-Dietrich Library (University of Pennsylvania)

I met with:
- Carton Rogers (Vice Provost & Director of Libraries)
- Michael Winkler (Director, Information Technology & Digital Development)
- Bob Persing (Head Electronic Resources and Serials)
- John Ockerbloom (Digital Library Planner & Architect)
- Beth Picknally Camden (Director of Information Processing)
- Joe Zucca (Director of Planning and Organizational Analysis)

Michael informed me that their acquisitions budget was USD 16 million and that they are an Association of Research Libraries (ARL) Tier 1 Research Library.

We discussed the University of Pennsylvania Library's experiences with Kuali OLE and GOKb. When I visited, OLE was up to release 0.6. This release had model data. Release 0.8, scheduled for October 2012, will enable partners to use their local data. Release 1.0, scheduled for Spring 2013, will include workflows. This is when OLE will be ready for early adopters to implement. Leigh University and University of Chicago will be the first to implement OLE in late 2013. The University of Pennsylvania Library are planning to implement OLE with release 1.5 in June 2014. OLE will have a workflow engine and rules engine. It will be possible to modify workflows in real time and the workflows will be flexible. The University of Pennsylvania Library will look at their workflows about a year before implementation. Version 2 may include a graphical editor for workflows.

OLE will replace Integrated Library Systems (ILS) and electronic resource management (ERM) systems; but not link resolvers at this stage. For the University

of Pennsylvania Library, this means that OLE will replace Voyager, MARCit and Verde, but not SFX.   SFX will be replaced at some point in the future.

Joe commented that OLE uses MetriDoc for reporting. OLE will be a relational database that will be able to gather real time data, automate usage statistics data collection, and display dashboard reports. The OLE document store will be able to take multiple formats, not just MARC, e.g. PDF Licenses. Michael stated that they adopt standards when they make sense, for example, licence data will be encoded in ONIX-PL.

Kuali OLE is developing Global Open Knowledgebase (GOKb) in partnership with JISC. JISC are working on a project dependent on GOKb called KB+. GOKb will be more than just a knowledge base (KB); it will be a management platform for licensed electronic resources; used to manage selection and acquisitions and availability of resources; and will have 100 data elements. It will include the ability to: link to data and also locally load data, update local data in real time, and to accept machine and community enhancements of data. Vendors and others are contributing data to GOKb. KBART is the target format for data from vendors. GOKb will include e-books in the future. Michael commented that Jane Burke from Serials Solutions was interested in GOKb and seeing how this could be used to improve the Serials Solutions knowledge base.

By being a founding partner, the University of Pennsylvania Library are able to shape the development of the product. Bob mentioned that working in partnership with other institutions brings other opportunities, such as the ability to look at how the community want to do things. Bob Persing has recently been devoting half of his time to OLE.

The University of Pennsylvania Library use WebVoyage as their OPAC and are developing their own discovery layer - New Franklin (http://dla.library.upenn.edu/dla/franklin/index.html) using Digital Library Architecture (DLA) software. They are currently running both the Classic Franklin and New Franklin side by side. Eventually the Classic Franklin (WebVoyage) will be turned off and the New Franklin will become Franklin.

The University of Pennsylvania Library anticipate that OLE will result in a reduction in the number of staff in technical services, for example as 60% of the workflow for print and electronic journals will be the same. Staff will need to develop new skills and have a better understanding of what the University of Pennsylvania Library is trying to do. Their IT staff will need to find new ways to integrate data and will work on other things. The University of Pennsylvania Library currently manage the University's courseware system (Blackboard), and they see this as an example of how library staff can become involved in other things.

Tuesday 28th August – Princeton University Library (Ex Libris Alma)

ExLibris Alma Product Information

"Ex Libris Alma supports the entire suite of library operations—selection, acquisition, metadata management, digitization, and fulfillment—for the full spectrum of library materials, regardless of format or location." (ExLibris, 2012)

Princeton University Library

Princeton University Library is one of the four ExLibris Alma developmental partners. They have more than 7 million books, 6 million microforms, 49,000 linear feet of manuscripts and their 2010-11 acquisitions budget was more than 24 million. (Princeton University, 2012)

Firestone Library (Princeton University)

I met with:
- Janet Lute (Integrated Library System Coordinator, Systems Office)
- Katharine Farrell (Acquisitions Services Director Assistant University Librarian for Technical Services)
- Jennifer Baxmeyer (Electronic Resources Cataloger)

- Nancy Burns (Senior Bibliographic Specialist II)

Katharine informed me that they are an Association of Research Libraries (ARL) Tier 1 Research Library and have cancelled print for online (electronic with perpetual access).

Princeton University Library have been working with Ex Libris for the last three years and have been testing Alma for the last 1½ to 2 years; but have not yet tested Alma's workflows. Alma currently has monthly partner releases. When I visited Princeton University Library, Alma was up to partner release 5. Princeton University Library have most of their Voyager data loaded into Alma and are expecting to have their SFX and Meridian data loaded into Alma in the next data load (due in early September). Janet Lute is the Alma project leader. A core group of library staff including systems, technical services, metadata, and fulfillment staff have been involved in the project. Princeton University Library currently has weekly conference calls with Ex Libris to discuss issues.

Princeton University Library has delayed their implementation of Alma until June 2013. One of the reasons for this is because of the move of their Technical Services department to a separate building off campus. Another reason is as some functionality is not there yet; some of this functionality is due to be released in Sept, Oct, Nov or Dec 2012. In addition as once Alma is implemented, Primo will be the only library catalogue and Princeton University Library staff were concerned that Primo did not have the ability to do call number, subject or author browse searching. Browse functionality has been included in Primo version 4.1 released in late 2012.

The first general release of Alma will not include all of the planned functionality; for example, selection and digital asset management will not be included. But Alma will replace ILS and electronic resource management products. Alma will replace Princeton University Library's ILS (Voyager), ERM (Meridian), Link Resolver (SFX) and MARCit.

We discussed Princeton University Library's experience to date with how Alma handles acquisitions, cataloguing, and resource activation. Katherine commented that as acquisition does not have standards and as different institutions have different requirements, acquisitions is difficult. Working with Ex Libris, Princeton University Library are rethinking their workflows, but are conscious of not building them around exceptions. Katharine commented that acquisitions is still being worked on and that during one of the recent weekly conference calls with Ex Libris they discussed payment methods, such as wire transfers.

Katharine commented that Alma works with university finance/accounting systems and in the September partner release Alma will have the ability to get confirmations

back from the University's Finance system. Janet commented that Alma is working with Primo, but that label printing is not there yet.

Jennifer and Nancy commented on their experiences in testing Alma, including the pre-migration clean-up work they had to do. For example, identifying packages, databases, portfolios; adding SFX IDs to Meridian (for packages); and identifying match points. Alma has both a community (global zone) and an institution (local zone). Jennifer commented that MARC XML is required for loading MARC records. Janet and Katherine both commented that the electronic resource data migration, particularly migrating data from Meridian, had been problematic.

Janet showed me some of Alma's functionality, including the ability to report access problems to vendors via Alma. Janet commented that budgets are okay in Alma and that Princeton University Library will shortly be doing a budget roll over. Janet commented that you can do some reporting from within Alma (e.g. records in a certain language) and other reporting via Alma analytics.

Alma has roles and privileges and is rules based. Based upon roles, staff will be given tasks. Janet commented that role set up will take some time.

Princeton University Library anticipates that Alma will result in the streamlining of acquisitions and resource activation. Katherine identified invoicing as one area that will require less staff time. Janet identified the ability to package purchase orders as another example of how Alma will streamline their processes. This will free up staff to work in different areas. Janet thought that Alma was suitable for large (or medium) academic libraries.

Thursday 30th August – The University of Tennessee at Chattanooga Library (OCLC WorldShare)

OCLC WorldShare Product Information

"OCLC's WorldShare Management Services provide a unified, Web-based environment that streamlines cataloging, acquisitions, license management and circulation and offers a powerful discovery and delivery tool for library users." (OCLC, 2012)

University of Tennessee at Chattanooga Library

The University of Tennessee at Chattanooga Library are one of the OCLC WorldShare early adopters. They have 457,779 volumes (Breeding, 2012).

Lupton Library (University of Tennessee at Chattanooga)

I met with the current WorldShare Management Services (WMS) implementation team:

- Jason Griffey (Head of Library Information Technology)
- Andrea Schurr (Digital Development Librarian)
- Lane Wilkinson (Reference & Instruction Librarian)
- Colleen Harris (Head of Access Services)
- Brian Rogers (Web Design & Instruction Librarian)
- Michael Bell (Asst. Dean, Head of Materials Processing)
- Theresa Liedtka (Dean of the Library)

The current team has been working together since April 2012. Some members of the team have been working with WMS for 2 years. They were the first Library to get their data into WMS, but not the first to go live with the system. They went live with WMS and WorldCat Local (the only discovery layer that goes with WMS) on the 6th of August, 2012.

The WMS implementation team shared with me some of their experiences in working with WMS and WorldCat Local. The lack of a local catalogue meant that they could not load vendor sets of MARC records. Andrea commented that they did not have a sand box (test instance) for testing. This may have been because they were an early adopter, as I understand libraries that sign up for WMS will be given access to a sandbox. Andrea commented that exposing e-resources in a discovery layer was also an issue, as was working with vendors for Knowledge bases. They had issues with Functional Requirements for Bibliographic Records (FRBR), and some of the searching capabilities of WorldCat Local (e.g. exact title and call number searching). The University of Tennessee at Chattanooga Library are building a call number search.

Like Princeton University Library, the University of Tennessee at Chattanooga Library also commented on the amount of pre-data migration data clean up that was required. Andrea commented that the matching of records in their catalogue with OCLC records caused some issues. Sometimes this was as the University of Tennessee at Chattanooga Library cataloguers had tweaked the OCLC record but not removed the OCLC control number; and sometimes this was due to OCLC practices. It took three data loads to successfully get all of the University of Tennessee at Chattanooga data loaded into WMS. Andrea commented that Libraries dramatically underestimate the time and complexity involved in new systems.

Andrea demonstrated the WMS Acquisitions and Circulation modules and commented that while WMS is permission based, the permissions were not broken down enough. Staff use the same log in for loaning a book and logging into WMS. WMS has shared vendor data, which is stored in the OCLC data store, and also local vendor data. It is possible to copy the global data and update it as local vendor data.

Colleen commented that the WMS reserves functionality works well and that check-in and check-out work fine. The main issue Circulation had was with the migration of fines data from Virtua (their previous ILS). While the fines information migrated okay, it was not possible to migrate the item details that the fine related to WMS. This meant that they had to print the fines data and also export it to Excel for auditing purposes.

The University of Tennessee at Chattanooga Library had done an extensive amount of testing during the last two years. During that time WMS had quarterly updates and OCLC regularly added additional functionality. The next release was due in November/December, 2012. Colleen commented that the notes about the updates were good, but that the general documentation for circulation was poor. By attending OCLC webinars the University of Tennessee at Chattanooga Library staff were able to build their own documentation. Colleen also noted staff training as an issue, and referred to this as getting over the grumpy hump. Colleen's advice for migrating to a new system was to build in more time than you need.

Even though they had gone live with WMS, some things still were not working correctly, for example, while they could receive multi-volume works okay, they were not able to reflect this to patrons. Some things were still being investigated, for example they were trialling the WMS budgeting functionality but were using the University's accounting system (SAP) for budgeting for this year. Other functionality had not yet been developed, for example serials still needed to be catalogued in Connexion. While other things had not yet been looked at, for example the recently released license module. Jason mentioned that the University of Tennessee at Chattanooga Library licenses are checked by the University's lawyer.

When I visited, the University of Tennessee at Chattanooga Library their old OPAC was still available to clients (although the data was not being updated). This was to

be turned off at the end of September. Once all of the data had been migrated from the current link resolver (Gold Rush) to WMS they were going to discontinue using their separate link resolver.

Library staff had been conducting drop in classes for patrons to explain the new way to search the Library Catalogue. These had mainly been attended by faculty. They had also been dealing with some angst from academic staff about the new catalogue. In dealing with these, they were promoting the benefits of the new catalogue over the old one. They will create a LibGuide and other information literacy and promotional materials for the new Library Catalogue.

Michael commented that they had tweaked their acquisitions workflows: their selectors now create orders in WMS rather than in vendor databases; they no longer download MARC records; and only some resources need to be catalogued at the receiving end. The amount of time spent on cataloguing and acquisitions had been reduced. This will be further reduced when they stop using Connexion for serials. As a result some staff are now doing different tasks, for example Inter Library Loan (ILL) instead of copy cataloguing. Jason commented that WMS will also enable staff to focus on different things, for example find new ways to use their data to offer new services to patrons.

Lessons for Australian University Libraries

As two of the sites I visited had not implemented their systems and none of them were very advanced with implementation of their electronic resource workflows, I was not able to identify the detailed impact of these Next Generation Library Management systems on electronic resource processes/workflows. There are nevertheless a number of lessons that Curtin and other Australian University libraries can learn from the experiences of the sites that I visited.

The time it is taking to develop and implement these systems illustrates how complex they are. The Australian Library Community can benefit from the comments and advice from the staff at the University of Tennessee at Chattanooga Library to make sure that we ensure sufficient time is allowed for the migration and implementation process. The very problem we currently struggle with in dealing with data in separate systems (data silos) will have a big impact on the migration to a next generation library management system. As data about the same product is recorded in different ways and at different levels within the different systems and this does not link together nicely, before this data can be migrated to a unified system a match point needs to be identified and possibly data added to one of the systems to facilitate this matching. In Princeton's case they had to add SFX IDs to their ERM data. There may also be a need to do other pre-data migration clean-up work, as experienced by

the University of Tennessee at Chattanooga Library, or to manually migrate some of the data.

In addition to the time required for data migration, libraries will also need to allow time to configure the system (e.g. for setting up roles, rules and privileges), setting up workflows, testing and training of staff. Even when they are in general release the first version of these systems will not include all of the planned functionality. So libraries will need to factor this into their planning for the implementation of any of these systems. Libraries will also need to accept a period of disruption and manage staff anxiety and uncertainty during the implementation process.

While none of the libraries I visited have yet reached this point in practice, replacing a number of different systems and unifying the workflow of print and electronic resources must mean that libraries' workflows will be streamlined. In addition, the ability to automate some tasks (based upon defined rules) will also result in improved efficiencies. The University of Tennessee at Chattanooga Library found that WMS did reduce the amount of staff time required for acquisitions and cataloguing and as a result staff moved from copy cataloguing to interlibrary loans. Both the University of Pennsylvania Library and Princeton University Library suggested that their systems would also free up staff time for other activities. Libraries in Australia can use this information when conducting workforce planning for the next few years.

The different combination of existing library management systems and degree to which ERMs have been populated is likely to mean that each Australian library will have a unique experience in migrating to one of the next generation library management systems. The same consideration will apply to the interoperability of these next generation library management systems with other systems (e.g. university finance systems and vendor databases).

The approach of the developmental partners (e.g. to rethink workflows and not just build them around exceptions) will benefit libraries worldwide. We can also benefit by sharing our experiences with the implementation of the various next generation library management systems, including Innovative Interfaces (Sierra) or Serials Solutions (Intota) with each other.

Conclusion

While I was not able to fully achieve the aim of my investigation, as the libraries I visited and the products were not as advanced as I had hoped, there are still valuable lessons that Curtin and other Australian University libraries can learn. These include the need to allow plenty of time for pre-data migration clean up, data migration from various systems, systems set up (including roles, rules and privileges), creation of workflows, testing, and training of staff. As these systems are still being developed,

it may be a few years before they include all of the intended functionality and libraries experience all of the anticipated impacts of these systems on the streamlining of electronic resource acquisitions processes and therefor staffing levels.

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