

Library Management Systems

Investing wisely in a period of disruptive change

Briefing Paper

April 2008

JISC and SCONUL recently commissioned a study to survey the Library Management Systems (LMS) landscape in the UK with particular reference to higher education (HE). This briefing paper is an abbreviated version of the decision-making guide for institutions at section 7 of the full LMS study, which suggests ways in which libraries, individually and together, can respond to a new landscape of Library System provision. It excludes the references and some of the evidence of the full report.

The current LMS market

The UK HE LMS market is mature and four main vendors (ExLibris, Innovative, SirsiDynix and Talis) have almost 90% of the market. In the past two and a half years there have been major changes in ownership, and significant consolidation. Two (ExLibris and SirsiDynix) of the four main LMS vendors are now owned by private equity companies. Librarians should appraise themselves fully about their new providers and review their vendor's product and business strategy, as covered in the LMS report. The business horizon for private equity is typically between three and seven years and therefore, further changes in the short term should be anticipated.

The six key recommendations to libraries from the LMS study

1. Avoid a costly LMS procurement process

Procuring a new LMS is a time consuming and costly process. Very few institutions have LMSs that are 'end-of-life' and therefore must be replaced on business continuity grounds. In many cases the perceived need to change will be because the contract comes up for renewal or termination after a set term. In mature markets products typically lack significant differentiation and so changing systems can be a poor return on investment. Libraries are well advised to focus instead at investments in time and resources that will achieve a more significant return.

2. Review the contract with your LMS vendor

Suggesting that libraries should not replace their current LMS is not to say systems cannot deliver better value. At a simple level the library may be able to get the same for less. Libraries with high value maintenance contracts should review what the incumbent vendor can offer, especially true if the contract has ended its fixed term. This can be a 'win-win' situation and, in return for a secure further term, vendors may be willing to cut a deal.

3. Get more value from your LMS investment: 'sweat the assets'

Many libraries have had their LMS for several years and workflows and processes tend to ossify over time. In these circumstances it is highly likely that there are options for simplifying and streamlining procedures to make savings; for example:

- Is the library still creating original catalogue records?
- Can Electronic Data Interchange (EDI) be used more widely and more effectively to reduce book acquisition costs?
- Can the system itself be administered in a more efficient way?

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4. Increase interoperability

One way of increasing the value of the core LMS is to make it more *interoperable* with other institutional systems. Embedding library services in an institutional portal increases the value of the portal to students and demonstrates how library services can add value to the institution as a whole to meet its wider goals. Better interoperability with finance and student record systems

means that the value of student and financial data is increased as it is used to support more institutional processes.

Service Oriented Architectures, using technologies such as Web Services, provide dynamic and flexible approaches to system integration and reflect the motivations behind the JISC Information Environment. Some libraries report achieving a level of interoperability via these approaches, often working with the internal Information Services team, and this is an area that warrants careful further examination by all libraries.

The study suggests that JISC and SCONUL have a role in working with all the stakeholders (including vendors) to lower the barriers to this kind of interoperability, especially addressing mutual 'pain points', and in doing so open up the market, reduce costs and improve services to end users.

5. Add value to the existing core LMS investment

Not investing in replacing the 'core' LMS leaves more opportunity to look at ways to save costs and improve services by adding features around that core. For example, some HE libraries have made substantial investments in RFID (Radio Frequency ID) based self-service systems to enable longer opening hours without

Where are library systems going?

Five areas of development for consideration and tracking

1. Open Source software

According to the survey conducted as part of the LMS study, no UK HE libraries had plans to adopt an Open Source LMS. Companies supporting them only really emerged in the US in 2007 and have no appreciable presence in the UK. In addition current Open Source products tend simply to replicate the conventional LMS modules and there is little evidence that they are any more interoperable than current vendor products. Certainly no clear cost benefit or functional advantage has yet emerged from an Open Source LMS. At present then there is little to be lost, and much to be gained, by watching to see how this trend develops.

2. Open data and platforms

Much of the value in some of the new global Web 2.0 services is their capability to bring data into a platform so it can be more easily and cheaply shared and re-used.

Libraries can do much more to open up their catalogue metadata for re-use. Players such as OCLC and Talis already offer platforms that enable library data to be re-used. OCLC's WorldCat, for example provides the default platform that enables the 'find this book in a library' link from Google Scholar. This kind of approach begs the question of the necessity for 180 or so separate online public access catalogues (OPACs) for UK HE alongside union catalogues such as M25, COPAC and SUNCAT. The costs of this duplication must be considerable and the limitations of this approach increasingly frustrating to users of the Google Generation.

3. Clickstreams and context data

The book recommendation service from Amazon is based on aggregating and mining user activity on a massive scale based on 'clickstreams'. In general, the more you use the service, the better (more relevant) the recommendations.

UK HE has yet to exploit this kind of approach in any major way. In addition to clickstreams, it is possible to collect explicit context data. Amazon does this by asking users to rate their purchases. Context in the HE environment could be a lot more powerful as students are enrolled on specific courses/modules. These data are not currently being used to improve the search performance of library systems and yet there is significant potential if it can be aggregated on at least a UK basis. Whilst recognising there are privacy and identity issues about how this data might be used, the time looks ripe for dialogue between all the stakeholders on how this potential might be released.

4. Vertical search

Exposing library data and services to Google Scholar, Windows Live Academic, or any similar search service may satisfy some expectations of Google Generation students. Library vendors certainly seem to be banking on recognisable user benefits in a more focused library centric approach. Vertical search is a fast growing area of Internet search business. The rationale for vertical search is that, although users are sometimes looking for all the information they can get (for which the likes of Google and the Yahoo search engines are used), they are often looking for something that is both quality assured and more relevant to their domain.

5. Universal Resource Management (URM)

URM is essentially a merging of the ERM and LMS into a coherent system for managing the totality of library resources. Vendors have begun to discuss it but no products are yet on the market. It is likely that URM systems will emerge slowly (probably out of ERM systems) and, like Open Source, this is an area to monitor.



necessarily increasing staff costs. Others have gained valuable experience through implementing Vertical Search products. The market for complementary products is widening as the LMS vendors have realised it is to their advantage that their 'add-ons' work with the LMS from other vendors.

6. Work with others: consortia and shared services

In a mature LMS market with relatively undifferentiated products, HE institutions will *not* derive competitive advantage from their *core* LMS. Therefore some form of cooperative shared provision (as already accepted around network provision) could be a productive way forward in reducing costs. This can be achieved through sharing services within a consortium. There is some successful history to this approach in UK HE and conditions are increasingly suited to its development.

In UK public libraries this approach is slowly gaining momentum and HE library consortia sharing an LMS are not uncommon elsewhere in the world.

It seems that the current state of the market gives added strength to the business case for consortia and shared service arrangements.

Google Scholar can be considered a vertical search application. More specifically, in the library domain, we can characterise new products such as Encore (Innovative Interfaces), Primo (Ex Libris) and AquaBrowser (Media Labs) as vertical search products. Whilst they are not targeted at a specific *topic* they are targeted at a specific *business channel* - in this context undergraduate and postgraduate learning and research.

By focussing on better exploiting library collections, both print and electronic, they can potentially provide better, more relevant resource discovery, improved delivery and a user environment more finely tuned to the needs of students and researchers.

How far they succeed is not yet clear, as this is a new area of product development that does not have wide library adoption. The whole domain will benefit if 'early adopters' of library vertical search products share their experience widely.

Summary: wise investment at a time of disruptive change

The nature of change

We are at a major point of change in the wider information economy within which library systems form part of a larger whole. The web and its associated technologies are maturing and have been at the heart of this fundamental change just as printing was centuries earlier. It is widely recognised that this is a period of *disruptive* change, bringing both opportunities and threats for both service provider and product vendors.

A recommended response

This is not a time for doing nothing. Libraries need to invest with caution but not complacency. Whilst it is clear that the library function has continuing and growing value (significantly, Google is a company with a self declared 'library mission'), it is not clear what roles conventional libraries will play. Librarians themselves have to face this major challenge and tread a careful line between securing a good return on investment and more imaginative leaps to ensure accessibility and relevance to their user communities.

Sharing service ideas and professional practice is particularly important in such a climate and therefore the LMS study recognises the particular supporting roles that can be played by JISC and SCONUL, working with libraries and with vendors.

This briefing paper was compiled by Ken Chad for the JISC & SCONUL LMS study team of Sero Consulting Ltd, Glenaffric Ltd and Ken Chad Consulting Ltd
Alternative formats of this briefing paper can be found at:
www.jisc.ac.uk/publications

Further Information

The full Library Systems Management report can be found at:
www.jisc.ac.uk/media/documents/programmes/resourcediscovery/lmsstudy.pdf

For more information about the Library Management Systems Horizon Scan project, go to:
www.jisc.ac.uk/whatwedo/programmes/resourcediscovery/libraryMS

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