

Section 4 - Library Survey

Contents

4.1	INTRODUCTION	51
4.2	THE STATE OF THE SYSTEMS MARKET	51
4.2.1	<i>The Library Management System</i>	51
4.2.2	<i>Electronic Resource Management (ERM) systems</i>	52
4.2.3	<i>Electronic resources: the present state of systems in UK HE</i>	52
4.3	LIBRARY SPENDING PATTERNS ON RESOURCES AND SYSTEMS	54
4.3.1	<i>Resources</i>	54
4.3.2	<i>Technology</i>	54
4.4	LIBRARY SYSTEMS AND THE NEEDS OF STAFF AND USERS	55
4.4.1	<i>The staff perspective on the LMS</i>	55
4.4.2	<i>What is missing from the LMS?</i>	55
4.4.3	<i>Library views of student perceptions</i>	56
4.4.4	<i>The influence of studying a particular discipline</i>	58
4.5	LIBRARY ENGAGEMENT WITH VENDORS	58
4.6	LIBRARY LMS PLANS	58
4.7	LIBRARY DEVELOPMENT OF NEW SERVICES	59
4.8	LIBRARY ATTITUDES AND PLANS REGARDING OPEN SOURCE AND WEB SERVICES	60
4.8.1	<i>Open Source</i>	60
4.8.2	<i>Web Services & Service Oriented Architecture</i>	60
4.9	SUMMARY OF KEY POINTS.....	60

4.1 Introduction

The JISC & SCONUL LMS Study survey (November 2007) was completed online by exactly 100 HEIs, representing over half the total of UK HE institutions.

Responses were not concentrated from any particular sector of higher education and can be categorised as follows:

Russell Group	15
1994 Group of research-led institutions	13
University Alliance of old and new	15
Old (pre-92) university not in one of the above	14
Million+ (CMU) group of former polytechnics	22
Guild HE of recent universities	10
Former polytechnics not covered above	7
Unclassified	4
Total	100

However, there was some bias in the spread of respondents towards larger HE institutions.

This section focuses on observations of importance for the wider study and should be read in conjunction with the statistical and graphical analysis of responses presented in Appendix 1, which will itself give rise to many further insights.

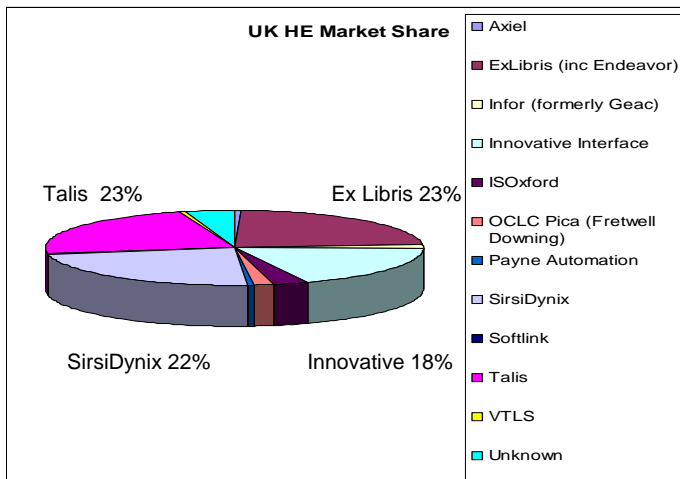
4.2 The state of the systems market

4.2.1 The Library Management System

In the UK, there are over 180 institutions delivering some form of Higher Education⁴¹. All have a Library Management System (LMS or ILS 'Integrated Library System' in US parlance). It was possible to enumerate the LMS provider for virtually every HEI outside the context of the library survey itself. The main vendors interviewed for the study are highlighted.

Market summary	Customers	% Share
Total number of HE institutions	183	100
ExLibris (inc Endeavor)	43	23.50
Talis	42	22.93
SirsiDynix	41	22.40
Innovative Interface	33	18.03
Axiel	1	0.55
Infor (formerly Geac)	3	1.64
ISOxford	6	3.28
OCLC Pica (Fretwell Downing)	3	1.64
Payne Automation	1	0.55
Softlink	1	0.55
VTLS	1	0.55
Unknown	8	4.37
Main players are Ex Libris, Innovative, SirsiDynix and Talis		86.88

⁴¹ HERO Website. Listing http://www.hero.ac.uk/uk/universities_colleges/hei_listing.cfm



The overall market position of all HE LMS vendors is represented in this chart

The LMS market is mature and there has been little 'churn' in the last few years.

4.2.2 Electronic Resource Management (ERM) systems

In contrast the market for products specifically aimed at managing, providing access to, and delivery of, electronic resources (predominantly e-journals) has yet to mature. It is a more complex and fragmented landscape. The library survey was used to clarify this picture.

LMS vendors were slow to respond to this e-resource need and other vendors such as Serials Solutions, TD-Net and the serial subscription agents and aggregators (EBSCO, Swets, OVID) began to fill the gap. The need to search across multiple (print and electronic) resources spurred the development of 'Metasearch' products and again non-library vendors like WebFeat⁴² led the way. The requirement to locate an 'appropriate copy' (typically the one licensed by the library) of a (typically e-journal) resource was met by linking technologies and components, most notably 'Open URL Resolvers' such as Ex Libris's SFX. All these products and components had, to integrate, to a greater or lesser degree, with the core LMS and this has led to an increasing use of global (rather than narrowly library) web-based interoperability standards.

LMS vendors either integrated these third party products with their LMS (e.g. SirsiDynix and Serials Solutions) or developed their own components (notably Ex Libris), which they could also target at libraries with a competitor's LMS. More recently LMS vendors have developed Electronic Resource Management (ERM) systems to do the same job for electronic resources, in terms of the staff management of electronic resources, as the LMSs had done for print. The latest development is what may be characterised as 'Vertical Search'. Products such as Encore from Innovative Interfaces or Primo from Ex Libris are aimed at providing a 'complete search and discovery experience that is appealing, sophisticated and easy to use'⁴³ or a 'one-stop solution for the discovery and delivery of local and remote resources, such as books, journal articles, and digital objects'⁴⁴. and one that 'leverages new Web 2.0 technologies and practices'.⁴⁵ They aim to do better than Google in a library context.

4.2.3 Electronic resources: the present state of systems in UK HE

As indicated above, the need to manage and provide access to electronic resource (separate and together with print resources) is being met by a range of components and systems from a variety of vendors. Most libraries mix and match these pieces together with varying degrees of integration.

⁴² From the WebFeat website: 'In 1998, WebFeat set out to change the way people did research. The idea was simple: let libraries search any or all of their databases at the same time' <http://www.webfeat.org/company/history.htm>

⁴³ Innovative Interfaces Encore http://www.iii.com/encore/main_index2.html#

⁴⁴ Primo overview <http://www.exlibrisgroup.com/category/PrimoOverview>

⁴⁵ Innovative Interfaces Encore http://www.iii.com/encore/main_index2.html#

E-journal management

There is no dominant provider of solutions. Most libraries are using solutions from their serial subscription agents/e-journal aggregators with Serial Solutions providing the main ‘independent’ (from the LMS vendors) solution. LMS systems can load (or create) e-journal catalogue records for display in the conventional OPAC.

Metasearch

As libraries licensed more electronic resources their web pages became crowded with a baffling array of potential sources for students and researchers to navigate. These resources were not generally catalogued in the LMS and so were not findable via the OPAC. Metasearch products aim to ‘provide a consolidated search environment for remote information resources.’⁴⁶ The leading library vendor product is MetaLib from Ex Libris. ExLibris claims 44 UK customers and the library survey counted 33 libraries using MetaLib (this indicates a bias in the survey response to the larger HEIs). The next largest share was achieved by Google Scholar, which indicates that libraries are looking beyond the vendors of conventional ‘library’ products and services to meet the needs of the ‘library function’. The usefulness of Google Scholar in a library context has been enhanced by its ability to integrate with Open URL resolvers. For example, in 2005, Ex Libris announced a ‘new set of tools to enable Google™ Scholar to display OpenURL links to SFX®. With these tools, institutions with the award-winning SFX link server can register with Google Scholar to have their SFX links displayed in Google Scholar search results’⁴⁷. This facility now goes beyond SFX and Google says it is ‘working with link resolver vendors to make it easy for libraries to participate in this program’.⁴⁸ This means that users of Google Scholar can be directed to the ‘appropriate copy’ available from, or under licence to their institution’s library.

Resolvers

Resolvers are therefore key to making best use of scholarly resources acquired or licensed by the library. So we should not be surprised by the relatively high take up of these products. Once again Ex Libris leads the field, in part because they were first to market. They took over the initial development of the Open URL standard itself, (now a NISO standard)⁴⁹ created a commercial product (SFX) and undertook an effective marketing campaign to promote the value of the technology.

ERM systems

These function to deliver the same kind of ‘back-end’ functionality (notably the management of the acquisition/licensing and cataloguing) for electronic as the LMS does for (mainly) print resources. The development of ERM systems is an example of how commercial development was informed by a specific library initiative –the Electronic Resources Management Initiative (see below) from the Digital Library Federation. DLF members are predominantly from the USA but Oxford University and the British Library are ‘Strategic Members’. JISC itself is a DLF ‘Allied Member.’ The DLF ‘is a consortium of thirty-three members and five allied organizations that are pioneering the use of electronic information technologies to extend library collections and services. We pride ourselves on our ability to concentrate the talent of our librarians and technologists on issues of shared importance. The Electronic Resources Management Initiative (ERMI) is one such collaboration and has proved to be a timely and wide-reaching endeavor, finding a ready audience in libraries, systems vendors, and standards organizations’⁵⁰.

⁴⁶ Ex Libris MetaLib <http://www.exlibrisgroup.com/category/MetaLibOverview>

⁴⁷ Ex Libris Press Release 19th May 2005.

⁴⁸ <http://scholar.google.co.uk/intl/en/scholar/libraries.html#start3>

⁴⁹ The OpenURL Framework for Context-Sensitive Services. NISO. http://www.niso.org/standards/standard_detail.cfm?std_id=783

⁵⁰ ‘Electronic Resource Management. Report of the DLF ERM Initiative’. By Timothy D. Jewell, Ivy Anderson, Adam Chandler, Sharon E. Farb, Kimberly Parker, Angela Riggio, and Nathan D. M. Robertson. Digital Library Federation. Washington, D.C. 2004. <http://www.diglib.org/pubs/dlf102/>

Notwithstanding this input from librarians, UK HE libraries appear to remain unconvinced that these products will deliver a good return on investment. Take-up has been slow and a significant number of libraries report this function is being managed by in house solutions. Innovative Interfaces and Ex Libris are the main commercial vendors for UK HE.

Vertical Search

Vertical search is a relatively new tier in the Internet search industry consisting of search engines that focus on specific businesses. But the number of these search engines being introduced has greatly increased in recent years so its not surprising that the library vendors are adopting this approach. The Library Survey used the following definition. 'By vertical search we means products that use combined federated/Metasearch techniques and data aggregation (by data harvesting) to provide unified access to the totality (as far as possible) of library resources whether print, electronic, locally held or licensed'. Some library vendors are now directing much of their product development effort to solving this problem. Take up of these products is low, understandably at this stage because they are new and library procurement cycles can be slow. Only a handful of libraries have installed them.

4.3 Library spending patterns on resources and systems

4.3.1 Resources

In terms of spending most institutions are annually spending over £500,000 on library materials (print and electronic). This may overstate the case a little as the response was somewhat biased towards larger institutions.

4.3.2 Technology

Half the library technology budget is spent on the LMS. Most spending is between £50,000 and £250,000. Projecting forward to 2007/08 and then 2012/13 spending is not anticipated to change significantly except with a slight shift to the middle ground with fewer libraries spending less than £50,000 annually on materials, technology or staff.

Unsurprisingly we don't see the characteristics for significant growth in the market even taking into account the development of new products and services to manage, discover, access, and deliver electronic resources. Only 16 respondents have plans (up to 2012) to purchase an ERM for example and the bulk (10) is planning to do that in 2008. However this may be a response based on the needs of an annual planning cycle rather than long-term intent. ERM figured as one of the elements that librarian saw as 'missing' from LMS functionality.

We might expect that an efficiency focus on the core LMS will shift the balance more to products and services to support e-resources. The potential for new ways of delivering applications such as Software-as-a-Service (SaaS) might reduce costs (including staff costs) over time. In the vendor interview Stephen Abram from SirsiDynix claimed there is potential for a 40% reduction in costs by using a SaaS approach⁵¹.

SaaS is essentially a more web-centric update of what were known as 'hosted' and then 'ASP' (Application Service Provider) solutions. In a strict definition 'SaaS vendors typically use a 'multi-tenant architecture', meaning that *multiple* customers are running the *same* software, but with virtually separate data. ASPs by comparison, merely deployed one application instance on a server for each customer..... It's reasonable to assume that multi-tenant architecture simplifies application management for the vendor. The multi-tenant model also simplifies the

⁵¹ More details on SirsiDynix SaaS approach is on their web site
http://www.sirsidynix.com/Resources/Pdfs/Solutions/Services/SirsiDynix.net_Software_as_a_Service.pdf

value for all customers since upgrades are instantaneously available across the entire platform'.⁵²

LMS vendors would probably need to substantially re-architect their LMS to take full advantage of this multi-tenant approach and what they may claim to be SaaS, in reality, remains ASP at the moment. Nevertheless libraries should be expecting to get better value for money from their core LMS.

Low growth opportunity will also support the current trend towards vendor consolidation in the market as companies seek achieve efficiencies through scale and elimination of product duplication. We have already seen this with ERM. The former Endeavor Meridian product is being replaced by Ex Libris Verde, following the takeover of Endeavor by Ex Libris. It would be unsurprising to see the same happen with former Endeavor LMS -Voyager.

4.4 Library systems and the needs of staff and users

4.4.1 The staff perspective on the LMS

Most libraries report that their LMSs are reliable, efficient and functional. Their main advantage for students and other users, over alternative routes to information, is seen as their ability to find *specific* items and report *availability*. On the other hand around two thirds of respondent agreed that the disadvantages to users were that they were 'clunky,' limited to the catalogue and had low visibility to users. From a *staff* use point of view 70% of respondents said that (lack of) corporate integration was the major disadvantage. Only 9% of respondents (this is a library *staff* perspective) said they were (definitely) not satisfied with their LMS.

The UK picture is not out of line with that in the USA. In January 2008 Marshall Breeding published the results of his LMS satisfaction study, which although international in scope was heavily biased in results from the USA⁵³. Nevertheless, in North America, there a very vocal minority make their strong dissatisfaction with the library vendors. 'These companies have become unresponsive to the collective goals of our profession and, like so much of our society these days, are no longer focused on the we but the me. It is a sad state of affairs and one that will not be tolerated.'⁵⁴ This attitude reveals a sense of market failure, which needs a structural solution.

Some see Open Source as the salvation and this has led to a small but growing number of Open Source LMS being installed, largely in North America. UK HE library attitudes to Open Source are described later.

4.4.2 What is missing from the LMS?

Libraries were asked to comment on 'what functionality, if any, is missing from the LMS. There is a wide variety of responses but certain key themes emerged, which are listed below (in order of how often they were mentioned) with some associated comments from libraries.

Improved user interface/interaction

- 'Web 2.0 functionality in OPAC'
- 'Lack of 'Web 2.0' type components in end user interface'
- 'Some aspects of personalisation'
- 'Intuitive and modern interface, Web 2.0, etc'

⁵² From Wikipedia. http://en.wikipedia.org/wiki/Software_as_a_Service

⁵³ 'Perceptions 2007: An International Survey of Library Automation. By Marshall Breeding. January 9, 2008 <http://www.librarytechnology.org/perceptions2007/>

⁵⁴ 'A symphony out of tune: when companies go deaf'. Carl Grant. Care-Affiliates blog. 4th July 2007. <http://www.care-affiliates.com/thoughts/archives/6>

- ‘Faceted searching. More intelligence assistance re expanding a users search’
- ‘Vertical, search functionality, personalisation, visualisation, integration’
- ‘Web 2.0 technologies i.e. RSS feeds, tagging, reviews etc.’

Integration with external systems and the open APIs to do this easily

- ‘Web services/APIs to allow customers to develop their own add on functionality’
- ‘Ability to interact with corporate institutional systems. Lack of ability to extract data in the format we would prefer’
- ‘MLE integration’
- ‘Integration with University finance system and student registry’

Electronic Resource Management

- ‘ERM - electric resources management functionality is completely missing’
- ‘Electronic resource management - but this kind of functionality is now being delivered by products outside of the traditional LMS’
- ‘E-resource management – why does this need to be an additional plug-in which has to be purchased (it is a 'library' management system not a system for books and journals - maybe LMS needs to be renamed’

Reading Lists capability

- ‘Need better reading list system fully integrated with the VLE, and e-material’
- ‘Management of course reading material’
- ‘Reading lists. Third party developed products which provide lots of additional functionality (especially in batch editing) should have been incorporated into the core product by now’

Better Management reporting capabilities

- ‘Easy-to-use reporting - e.g. statistics.’
- ‘Easily accessed reports on services / resources (document supply, acquisitions, usage stats, etc.)’
- ‘Budget management - and ability to extract data that is meaningful’

Inter-Library-Loan (ILL)

- ‘ISO ILL’
- ‘Poor ILL functionality; lack of ability to link with inter / intra-institutional systems’
- ‘Better ILL functionality (the UK is different from the rest of the world in having the BLDSC!).’

4.4.3 Library views of student perceptions

The survey did not set out to determine students’ views *directly* (there are many other studies that have done that and some are discussed in accompanying Horizon Scan part of this study) but it did ask for comments ‘on the perception that there may be a growing problem with the way in which students interact with library resources’

The Google metaphor

Almost all respondents acknowledged that Google ‘metaphor’ has changed the game, shifted the paradigm. There is clearly a high awareness of the problem that is summed up by Welsh understatement. ‘Generally, the delivery of library resources is not well attuned to student expectations, learning styles, study environment or lifestyles’. A university in the North West noted that ‘many students go to Google first and go no further’ and went on: ‘Students are working in different ways: they are often time limited and off campus and this will affect their

behaviour: desktop searching for e-resources is easier. Google searches are based on content and relevance searching. Our ideal LMS would include a semi-commercial version of Google.'

An expectation that all resources should be full text was widely noted. Despite the shortcoming of the Google only approach, 'disappointment is exacerbated when the students find a resource via Google etc only to find that they then do not have full-text access, because the library does not subscribe' it may be perfectly rational behaviour, at least for undergraduates. A West Country university commented that, there is a 'changing attitudes to study by students ... a means to an end' – that end being a degree. The majority of students no longer come to university to "read" for a degree – to study a subject because they enjoy it – so there is probably little "reading around" the subject'. Google may simply be 'good enough'.

Recognising Barriers

Libraries noted a number of barriers to students in the existing institutional and library set up. A Russell Group university reported that 'students, including academic staff, are having problems in distinguishing the e-journals we list and those with full text access. Not enough information is displayed to help them to understand what they are able to have access to. More is less in this case, as they lost their way in the maze of resources. Students are still not conversant with searching strategies' A Midland University put it this way. 'People tend not to think in terms of library concepts/flows, i.e., bib searching and then using multiple additional tools to find out where the material is and to access it. They want fast, accessible results which will suffice (good enough) not a fragmented utility for deep and exhaustive research'. Libraries and library systems tend to categorise and provide access to resources such as books, print journals, e-journal, thesis, databases etc by *format*, which is not the way users typically view the world.

One of the first barriers put in front of users is the need to 'sign-on'. 'Staff and students don't understand why we "need" so many logins!' complained one college. Users are then confronted with a great complexity of resources and 'Too many separate tools and interfaces which are not easy to use.' And as noted above even if they find a relevant resource they may find it is not licensed by the institution and so not available to them. Users may find the lack of a UK wide approach to this problem of licensed resources confusing and surprising. The JISC supported National e-Journals Initiative (Nesli) is a 'national initiative for the licensing of electronic journals on behalf of the higher and further education and research communities'⁵⁵ and is worthy of note but is far from addressing the problem from a user perspective.

Lowering Barriers

Libraries report three main tactics in overcoming the barriers to resources: ensuring easier sign on to resources, simplifying and unifying access and improving information literacy.

Single sign on - Some libraries are integrating sign on with VLE and Portals but there appears to be much room for improvement.

Access - Metasearch is seen as a key tool in unifying and simplifying access. Vertical Search products are also aimed at unifying and simplifying access (and will subsume Metasearch) but were not mentioned at all in this context by libraries. They are probably too new in the market for most libraries to be able to consider their value. A major Scottish university reported that, 'since implementing WebFeat we have seen a significant increase in our use of resources. We feel this is because of better access to content and less issues with finding items' However a major northern university complained that, 'federated searching hasn't delivered. Large union catalogues including A&I data would be better'. Another university qualified the success of Metasearch by commenting: 'The use of e-resources is increasing exponentially since the introduction of Metalib/SFX; however significant numbers of students dislike it and would prefer a Google type approach to all resources. Training by either librarians or academics into how to

⁵⁵ <http://www.nesli2.ac.uk>

access e-resources is essential. The information literacy sessions we put on for students pay dividends.'

Information Literacy - A minority of respondents supported this claim for the value of Information Literacy. A London university respondent was optimistic. 'There is a tendency to go to Google but I believe with good training and support there is no reason why students should not recognise the importance and relevance of Library resources.' A CURL university explained. 'Clearly students do not necessarily start their research based around the library systems/resources. We have a good, embedded, Information Literacy program which is intended to help students make informed decisions about the information they are finding, and the mechanisms for finding it'

Exposing library resources - In addition to these main tactics some libraries are also beginning to look at how they can 'expose' library resources outside conventional library based systems. A Russell Group university put it this way. 'The library has to recognise the wider context in which students (and staff) are working and expose resources via a variety of different routes (search engines, portals, VLEs, PLEs, etc.)'

4.4.4 The influence of studying a particular discipline

Libraries were asked to comment 'on the extent to which issues with students' interaction with library resources may be specific to particular disciplines'. Some respondents warned against generalising with a major research university adding: 'also worth noting is the split between teaching-led requirements and research-led requirements.'

Nevertheless most perceived a clear gap between science and humanities, with users in science related discipline interacting predominantly electronically, and humanities and arts still relying to a large extent on print. Observations included:

- That a large proportion of Art and Design students may be dyslexic, which can have a serious impact on their effective use of library resources
- That Arts and humanities based users still have a heavy reliance on printed materials which may be in danger or being overlooked as the emphasis of the discussion moves towards e-resources

4.5 Library engagement with vendors

Nearly half the respondents reported that their libraries are engaged with their LMS vendor in terms of basic focus groups and forums and this is the route they use to address the needs for new functionality. There is little strategic engagement and this is where JISC and SCONUL could potentially play a helpful role.

The interviews with vendors revealed a positive attitude towards better engagement with the market as a whole, including JISC and SCONUL. JISC and SCONUL might have the opportunity to leverage their impartiality (as a result of not being direct customers of the LMS vendors) to promote the common interests of all stakeholders (inc. the commercial vendors) in the domain.

Some specific recommendations are made below, in particular the section on developing new services.

4.6 Library LMS plans

As stated earlier the 'churn' in LMS replacement is slow. There was a peak in replacement up to the millennium (as might be expected) but as libraries have now replaced their end-of-life,

typically text based, systems, there ought to be little need to go through another costly procurement process.

There is a perception that in terms of the core LMS there is little now to differentiate systems 'Choosing a new ILS is a lot like choosing a rental car. Like the ubiquitous four-door sedan, any ILS is going to get you where you need to go'⁵⁶.

Some will review their position as their fixed contract come to term and roughly 20% were looking at a possible replacement between 2008 and 2012. In view of the present state of the market libraries should carefully consider whether an expensive procurement exercise is the appropriate response in a market where products are not strongly differentiated.

Libraries are also planning to purchase Metasearch, Open URL and ERM products but even here, in the immature market for e-resource products, growth will not be dramatic with even fewer respondents reporting plans to purchase in these areas than the core LMS.

4.7 Library development of new services

In the past LMS were 'stand-alone' systems and there was little requirement or opportunity for integration with external systems. This has changed significantly with, for example, the development of VLEs. Global developments such as Service Oriented Architectures (SOA) are designed to enable better (real time) interoperability and they have aroused considerable interest in the library world.

The JISC seeks to leverage these technologies for libraries through the Information Environment (IE), which specifies a set of standards and protocols that support resource discovery as part of learning, teaching, and research activities. JISC is developing components within this architecture to test out and promote the use of these standards and to help provide appropriate services to the community, so a seamless and flexible experience is available to learners and researchers.

Whilst libraries are one of the central providers of services that can help to achieve these aims, libraries report almost no serious intention to integrate with the JISC IE with their local services. This is also the case with LMS vendors, as evidenced by the Vendor Interviews. Integration with MIS services, VLE and even VRE are planned but they do not appear to be seen as part of the JISC IE.

Nevertheless both local and wider service integration is clearly on the agenda, with over 40% of respondents reporting some Web Services integration activity and over 50% reporting developments involving Web 2.0 features. Libraries also listed 'integration' as one of the 'missing' parts of LMS functionality, although there is recognition that this is not just the LMS: As one university commented, 'I do not blame the LMS for lack of integration; this is just as much the fault of other systems.'

In order to better engage with the domain (libraries *and* vendors) JISC might usefully consider its role in helping to define the domain application of web services; for example:

- A common *schema* for interoperability with the LMS reading list function and the VLE
- Schemas for new discovery tools to interoperate more *deeply* with the LMS, such as placing requests (holds) for material

Such initiatives might open up the market to more competition, leverage the skills of a new breed of 'mashers up' and so reduce costs for libraries. There is certainly a need for an organisation that can gain the trust of, and work with, both the commercial vendors and libraries themselves.

⁵⁶ 'Interoperability the only solution.' By Andrew K. Pace. Library Journal, 1st February 2004.
<http://libraryjournal.com/article/CA374953.html>

4.8 Library attitudes and plans regarding Open Source and Web Services

4.8.1 Open Source

Open Source *components* are in wide use in libraries (e.g. Apache web servers underpin many OPACs) and more widely in HE.

However, no respondents thought that it was likely that they would adopt an Open Source LMS. Half thought such an adoption unlikely and nearly 20% had no interest in Open Source. One library commented 'I think any product we went for would have to have a substantial user base which might be a worry with the new open source systems.' Another said that Open Source was 'not an institutionally favoured approach'.

This is not the case in North America where the last 18 months have witnessed a small but growing band of Open Source LMS installations and the growth of companies specifically aimed at supporting and developing Open Source applications in libraries⁵⁷. This growth of companies supporting a variety of LMS applications means that libraries do not necessarily have to devote their own staff resources to developing and supporting an Open Source LMS.

4.8.2 Web Services & Service Oriented Architecture

There is more engagement with Web Services and Service Oriented Architecture with nearly one quarter claiming they are engaged already in some form of Web Services development. Only a small number (3) said they were *not* interested in Web Services.

Significantly, there are now real products on offer to meet some of the interoperability needs of libraries, with vendors claiming Web Services / SOA as a key component of their offering to libraries.

4.9 Summary of key points

Key point	For more detail see section(s)..
The library survey got a high response	4.1
The LMS market is mature and dominated by four vendors	4.2.1
The market for solutions to provide access to and manage electronic resources remains fractured with a variety of components systems and vendors	4.2.3
No major shifts in spending are anticipated and the appears to be little opportunity for growth in the LMS market	4.3.1 4.3.2
New approaches such a Software-as-a-Service are worth investigating as a means to reducing costs	4.3.2
From a staff perspective there is little strong dissatisfaction with LMS vendors	4.4.1
Improvement to the user experience and integration with other systems are seen as the major gaps in the current Library Systems environment	4.4.2
Librarians recognise that their systems are not meeting the needs of students and other users	4.4.3
Librarian are adopting a number of tactics to improve the usability of library systems, such as adoption of Metasearch products and Information Literacy programmes	4.4.3
Users would welcome a UK wide approach to the licensing of	4.4.3

⁵⁷ E.g. CARE Affiliates launched in 2007. <http://www.care-affiliates.com/>

electronic resources to avoid the frustration of locating a desired resource but it not be freely available through their particular institution	
The broad discipline being studied affects the way student use the library and library resources. Books remain important for Arts and humanities students	4.4.4
There is an opportunity for JISC/SCONUL to improve the strategic engagement between libraries and vendors	4.5
A significant proportion of libraries are considering replacing their LMS in the near term. They might consider the value of this approach in a mature market with little product differentiation	4.6
Libraries see integration with the wider environment important but the JISC IE is not the motivating factor. There is opportunity for JISC and SCONUL to work with libraries and vendors on domain specific schemas to promote interoperability	4.7
Libraries remain sceptical about Open Source LMSs but many are monitoring developments	4.8.1
There is a small but significant engagement with web services/SOA with some specific library products now available	4.8.2