

'Change will be relentless'

Ken Chad looks at the latest developments in library management systems. While we may be busy looking for value for money, Ken reminds us that we must not forget that ultimately value will be determined by our end users, and libraries and library system vendors will have to work hard to meet their demands.



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IF you are in the market for library systems, what should you be looking for? Needs vary across sectors: corporate, legal, public, school, college, and university – and circumstances differ between individual organisations. Nevertheless, there are enduring similarities between libraries and these are reflected in the market for library systems. The library management system – LMS (or, in US parlance, the integrated library system – ILS) remains the core system for many libraries. However, the weakness of the conventional LMS in terms of managing electronic resources means it is diminishing in importance. The UK's newest Higher Education (HE) institution, Pearson College, with its e-resource only approach, can do without an LMS.

Much of the change in library systems is influenced by developments in the wider technology landscape and, although the pace and precise nature of the changes may differ between sectors, neither libraries nor vendors can escape the disruptive effect. 'Change will not be instantaneous but it will be relentless' warns David Lewis, an interpreter of 'disruptive innovation' for libraries.¹

Technology trends

So what are the key underlying technology factors in this 'relentless' change, and how do they influence the library systems that are on offer? The analysis of broad technology trends by organisations like Gartner and Forrester Research differs in detail, but there are large areas of overlap and agreement. I suggest that there are five broad areas that are especially relevant in the library systems context: content; infrastructure/the cloud; open; business intelligence/analytics and consumption.

Content

The obvious trend here is the move to digital content. The effects are profound. Writing about what he calls the power of the new 'digital disorder', David Weinberger says: 'Now that the digitising of information is allowing us to go beyond the physical... the shape of our knowledge is changing.'²

Infrastructure/cloud computing

'In 2012, we will see the beginning of the dawn of infrastructure irrelevance' was how one commentator described the effect of the 'cloud.' The definition of cloud computing remains a point of debate but there is a clear trend for hardware and software services to be located and managed somewhere 'out there' and available via an internet connection and web browser.

Open

All kinds of organisations appear to be in the thrall of 'open', whether that is in terms of open source software (OSS), open data and content or more open approaches to innovation.⁴

Business intelligence/analytics

We are in the age of 'business intelligence' and 'analytics' and 'big data'. Whatever the label, organisations are becoming increasingly aware that they can better exploit data. Much of that value comes when data is aggregated, often on a global scale using cloud based infrastructure. 'Companies begin to understand that collecting and using massive amounts of data isn't so hard any more. The cloud makes processing all this information possible without having to build the infrastructure permanently in your data center. And it's pretty useful in making smart business choices.'⁵



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Local Government Library Technology

<http://lplibtech.wikispaces.com/>

LGLibTech is a free community resource open to all.

It covers a wide range of library technology issues relevant to public libraries, Anyone can view and download the content and anyone can add and edit content



<http://helibtech.com/>

HELlibTech is a free community resource open to all.

The aim of HELlibTech is to provide a starting point for anyone interested in library technology in Higher Education. The focus is UK but most of the issues will be relevant elsewhere.

This website is managed by Ken Chad Consulting Ltd on behalf of SCONUL. There is also a team of volunteer editors. The impetus and the initial data came from the 2008 SCONUL/JISC Library Management System Study.

http://www.sconul.ac.uk/news/lms_report/lmsstudy

The background to both LGLibTech and HELlibtech is discussed in 'The library technology market: a case for an open 'conversation''. By Ken Chad. Cultural Heritage (a UKOLN blog) September 2010.

<http://blogs.ukoln.ac.uk/cultural-heritage/2010/09/20/the-library-technology-market-a-case-for-an-open-conversation/>

LIBRARY MANAGEMENT SYSTEMS

Consumption

'The rise of smartphones and tablet devices has transformed the consumption of content,' Martin Belam wrote recently in the *Guardian*.⁶ Millions watched the Olympic Games on smartphones and tablets. NBCOlympics.com declared that 37 per cent of online coverage was viewed on a mobile device. For me, the shift to digital consumption of books was made palpable as I witnessed the Kindle and iPad replace paperbacks as the preferred reading 'device' for London Underground travellers. 'Consumption' is not just reading. It may have a social context. On some e-book devices the 'book's pulse gets stronger as comments are added and more readers are reading' and readers will be able to see 'what others thought of what you just read and get interesting stats, such as how many others are reading with you'.⁸ As digital content and pedagogy combine and are delivered on tablet devices, a revolution is underway in textbooks. It started in schools but is set to have a big impact in further and higher education. This scenario presents some deep challenges for academic libraries.⁹

What does this mean for library systems?

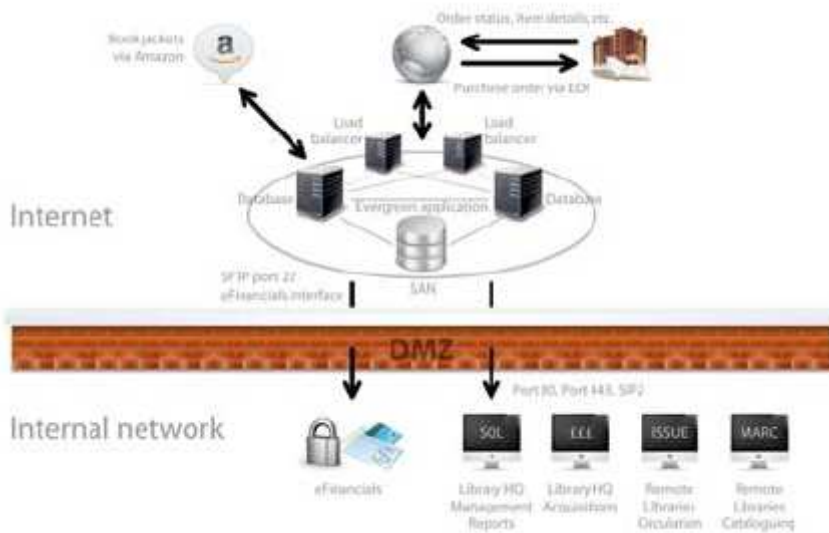
'With the increasing dominance of electronic content and digital collections in academic libraries, the capabilities lacking in the current slate of automation systems has become an obstacle to progress', said Marshall Breeding in 2011.¹⁰ He went on to speak of 'the impending demise of the ILS' at a panel session at the American Library Association conference in January 2012.¹¹ However, we can overestimate the speed and extent of change. Taking a non Higher Education based perspective, Tim Twine from EOSi remarked to me: 'An awful lot of the RFPs and system specifications we get are still pretty much indistinguishable from those we received five or 10 years ago'.

Content

Managing digital content is significantly different from managing print. 'Conventional' library systems struggle to deal effectively with e-resources, particularly when confronted with managing licenses. Libraries often resort to spreadsheets or a separate Electronic Resource Management (ERM) system to handle the problem. One vendor in the schools market said to me: 'E-books are a minefield in licensing terms and we are finding that... we are being asked many questions about licensing and how e-book portals are being integrated into the LMS'.

Infrastructure

According to Erik Mitchell at the University of Maryland: 'While forecasting the next must-have library information service can be difficult, it is likely that the service will be available in the cloud. Library IT vendors more frequently offer hosting options... and are developing new systems that leverage cloud architecture to share data and make adoption and management easier for libraries'.¹² Sharing data can help to streamline workflows. The cloud and improved workflows are an integral feature of 'next generation' systems for academic libraries and promise a reduced total cost of ownership (TCO).¹³ Cloud computing is increasingly important in other sectors too. One vendor commented that for corporate libraries: 'Money is tight. We are now seeing more clients looking at cloud/SaaS [Software-as-a-Service] as a serious option.' Another said: 'Delivering via the cloud used to be a hard sell... but not any longer. These days, it's



Evergreen architecture

the exception to find potential clients in our sectors [college and corporate] who do *not* want us to host their system in our data centers.' The 'service oriented architecture' (SOA) of these systems is also a factor in helping to meet the demand for improved interoperability with administrative systems such as finance and student/customer records.

Open

Commentating on the beta release version of the open source Evergreen library system in 2006, a librarian commented: 'I think this will be the start of a truly disrupted Integrated Library System marketplace.'¹⁴ If that is true, the disruption is proceeding at a modest pace. Adoption in the UK of OSS library systems however has been accelerated in the last three years by the Library Co-op and PTFS Europe who provide hosting, support, training implementation and development services. Nick Dimant of PTFS Europe considers that: 'Cost savings, autonomy and flexibility are major drivers that continue to make open source systems a viable option.' Vendors also appreciate the advantages of using OSS components 'under the bonnet' of their 'closed source' library systems.

Business intelligence/analytics

Next generation systems exemplify a progression from 'management information' to business intelligence/analytics. This approach is less about statistics such as loan transactions and more about exploring and analysing data. This might be to better determine patterns and help the library to potentially predict and respond to shifting needs. From a user perspective, recommender services that have long been a familiar part of Amazon and other commercial services are becoming available in library systems. For example the ExLibris bX service 'creates new insights by exposing usage patterns, associations between topics, authors and articles.' It is based on 'data mining and structured analysis of usage data obtained from hundreds of research institutions worldwide.'¹⁵

Consumption

A recent *Library Journal* and Bowker 'Patron Profiles' report recommended that libraries adjust their strategies based on the rise of tablets [and] other devices.¹⁶

One vendor I spoke to reported that mobile applications are especially valued by their law library clients. Tim Twine of EOSi notes: 'Up until now the main focus has been on ensuring that Opacs (online public access catalogues) can be searched on smartphones and tablets, but we are now seeing demand for staff modules to be accessible in this way'. Associated with smartphones and tablets is the rise of 'apps'. At the beginning of the year SirsiDynix launched their Social Library™ Facebook app solution,¹⁷ and soon no self-respecting library will be without its iTunes downloadable presence.

For undergraduates the content they 'consume' is heavily dependent on lecturer recommendations. A peculiarity of the UK academic library technology environment is the reading list system that provides a course/module-focused perspective on library resources.¹⁸ The reading list sits at the increasingly dynamic interface between the library and teaching and learning systems. The market is hotting up with a new system (rebus:list) from PTFS Europe challenging Talis Aspire and open source and locally developed systems such as LORLS.

Conclusion: the business case

Whatever the technology factors in play, libraries will need to make a clear business case and that generally rests on making efficiencies and improving the user experience. 'For most of the people we work with, value for money remains the key issue' remarks Tim Twine. Many public libraries have addressed this issue by sharing a library system and such arrangements now cover around 20 per cent of UK public library authorities. However, value is ultimately determined by the end users. Customer experience expectations are derived from non-library systems and libraries and library system vendors will have to work hard to meet their demands. n



<https://libtechrfp.wikispaces.com/>

Open specifications for library systems (LibTechRFP) is a free community resource open to all

Ken Chad Consulting set up the LibTechRFP wiki to promote the development of standard, open and re-usable specifications for library systems. We hope this service will not only help to reduce costs in library technology procurement but facilitate an open dialogue amongst all interested stakeholders to help develop the functionality of library related systems.

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