



21st Century Learning Management



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Introduction

On 25th September, the eLearning Network held their “Next Generation Learning Management Event”. A cross section of eLN members; private and public sector users, LMS and content vendors as well as consultants and other users attended.

All attendees took part in an activity to identify what was required in an LMS that was fit for the 21st Century. The activity was carried out in World Cafe style, and the subject was covered from the perspective of learners, businesses, L&D departments and IT.

This is the output of that activity.

The Basics

This document provides a long list of desired features, functions and possible use cases, but there is still a requirement for the core functionality of an LMS; tracking of all types of content (elearning, classroom etc) and provision of easy access to learning and reference materials.

Personalisation

The personalisation of web based content is now a base expectation, and there is a desire to see that same personalised approach being delivered within an LMS. It is expected that learners will have their own home page, with the ability to choose at least some of the content they see, probably in a widget based approach akin to iGoogle.

Most organisations will have a requirement to specify some of that content, and some will want to limit the range of optional content, but all want some degree of choice for learners.

As well as personalised content chosen by the learner, the system needs to be smart enough to automatically pick relevant content, such as presenting learning opportunities based on the learner’s role. In addition, it should offer the option to complete the learning in the way best suited to the learner’s preferred learning style.

Members of the L&D team would also like an automated approach to identify those needing help, which may be based on a number of factors; quantity of completions, time taken, scores, low achievement compared to peer group. This would be tied into an automatic reporting process that would flag this information to the right person to offer support.

Localisation

Although many current LMS offerings provide at least some degree of localisation of the interface, there is a desire to see that implemented in a manner more easily managed by the user. The ability to make language changes should not just be based geography, but be changeable at different levels within an organisation, such as where different departments have jargon specific to their area of operation.

Access

The ability to access the LMS from multiple locations and via multiple devices was a popular requirement. Like personalisation, the ability to use the web to access what you want, where you want and using your own choice of tools, is something that has become the norm, and this needs to be extended to the world of the LMS. Users should get a similar quality of experience whether they are accessing from home, and irrespective of whether they are using a PC or a mobile device such as a smartphone.

This will require LMS vendors to address certain issues. Some are specific to delivery of learning, such as the requirement for tracking, but many other issues such as dealing with lower quality browsers and low bandwidth have already been addressed by others outside of the learning sphere.

Integration with other systems

For many, there is a requirement that the LMS not be seen as a separate system, but rather that it should sit behind an intranet or other system and offer it's functionality where required. To make this happen will require more than just technical changes, with IT teams having to take strategic decisions to implement such an integrated system, but offering the functionality would be a useful first step.

Interoperability and communication between systems is not a new requirement in itself, but those who have implemented an LMS certainly think it could be done more efficiently and effectively. However, integration with internal systems is no longer enough. Many organisations are required to meet standards set by external bodies, and other choose to work with external providers who provide certification for internal accredited courses. Automated and secure communication between the LMS and the systems used by awarding bodies is high on the agenda for those organisations.

A surprising number of LMS users have no link between their LMS and HR systems, which not only means they must regularly rekey data, but it significantly increases the chance of errors. Any LMS should, as a very basic requirement, support integration with HR systems for managing user records.

Integration with major single-sign-on systems and other enterprise wide user systems such as Active Directory is a base requirement.

Most organisations have some form of centralised calendaring tool, and LMS integration with common systems such as Microsoft Exchange and Lotus Notes as well as open standards such as CalDav provide a number of benefits. Learners can add course bookings into their calendar, which has the potential to reduce both the central administrative burden and the number of no-shows. It would also be a real boon for anyone scheduling an activity if instructor's calendars were accessible within the LMS.

Classroom Management

Although there is often an assumption that the key driver behind LMS adoption is to launch and manage elearning content, the management of classroom activity is at least as important for many organisations. To this end, any LMS should be able to manage resources such as rooms and projectors as well as managing the availability of trainers and other staff.

Tagging is a popular and freeform way of managing online content, which could very practically be applied to the management of resources.

Learner Interaction

Whether it's holidays, movies or ebay purchases, people are used to being able to provide online rating and review, and indeed many people would not make key purchase decisions without consulting online sources of consumer feedback. The ability for learners to rate and review content would extend that same consumer involvement to the LMS. It was recognised that such an approach is not without its challenges, not least because it was acknowledged that learners may learn from but not enjoy a piece of content, but we need to understand that our learners are much more sophisticated as consumers than they were in the past.

There was interest in another feature often offered on ecommerce and other customer facing sites, which is the ability get support via real time chat. Some LMS vendors already offer chat, but it's usually set up to be used as part of a learning activity rather than as a support mechanism for more practical matters such as log in issues or enquiries about workshop availability.

Search and Recommendation

Keeping to the topic of ecommerce-like features, most people would like to see some form of recommendation engine being included in an LMS that behaves similarly to the recommendations generated by Amazon. For example, a learner could be offered a number of learning activities based on previous courses completed. This would be presented in a format such as “You've done this course so you might like...” or “People who took this course also took...” or “What's new (based on the learner's profile).”

Search is a real bugbear, not least because even where the search within the LMS work, it is likely to be entirely separate to other systems such as the corporate intranet. As well as wider integration, the search engine also needs to be able to make suggestions, such as “You've searched on this, but did you mean...”.

The traditional catalogue approach to managing content could be improved by enabling the tagging of content. This would allow learners to drill down more easily within the catalogue as well as improving search results.

In addition to targeted suggestions the LMS landing page would benefit from displaying lists of popular course, although this may need to be configurable to allow organisations to optionally exclude certain activities such as compliance content.

Collaboration

Collaboration tools have long been a feature of some enterprise LMS offers, but there was a general feeling that they were poorly implemented. Users want improvements to the current collaboration tools as well as the addition of more up to date tools such as blogs and wikis. There was a great deal of interest in learner generated content and as well as a need for an easy to use tool set for learners, L&D practitioners are looking for ways to better manage this.

Organisations see the LMS as having the potential to be a communication tool, something that encourages the sharing of knowledge rather than restricting it. These shift the LMS from being seen as essentially an administration and management tool to a communication platform that encourages professional networking.

Competencies

The need to link to learning activities to learner performance and ultimately organisational results, is as strong as ever. Support for building learning content and programmes around a competency framework is seen as critical for achieving this. A competency driven approach should be flexible enough in its implementation to allow for other uses such as talent spotting, career path management, links to appraisals and also provide tools for managing individual and departmental TNA requirements (including the ability to manage and measure progress as a department).

A strong competency driven approach would also support the search and recommendation requirements by providing data that would allow the automated sequencing of content based on factors such as existing knowledge and development goals.

Reporting

Any LMS should in theory be a rich source of useful and usable data, but the reality for many is that reporting is a source of nothing but frustration. Non-technical users need to be able to get what they want out of it, in the format that they want it with minimal effort. Outputs need to be complete and formatted, with no requirement to further manipulate the data in Excel.

There is an acceptance that highly complex reports may need some technical support, but this should be something that can be done internally rather than being a bespoke coding requirement.

Most organisations still want the basics such as course attendance, and easy tracking and reporting on compliance issues such as health and safety. However, even with this relatively straightforward data there is an expectation that it can be integrated with other management information, such as accident reporting, to provide rich management information. With this kind of data there needs to be a trusted audit trail that can be used to demonstrate the authenticity of the information.

The provision of a Manager's dashboard, specifically something that links learning activity to organisation goals and performance, is seen as having the potential to support the engagement of managers in the learning process.

Training Records

The transcript or training record is of course a key component of any LMS, but it's usefulness is currently limited to the learner's current employer.

Many would like to see the training record become transferable; something that learners can take from organisation to organisation. This is of course, not without issues. It would require an agreement between LMS vendors on a common standard for training records (and the elearning industry isn't renowned for common implementations of the same standard). It also presents organisational issues, such as whether or not they would recognise the training from another organisation, or how willing they are to release this information to another organisation that is a potential competitor.

Nonetheless, in a time when openness is becoming the norm, and the eportfolio concept is gaining traction, this surely must be worthy of consideration. At the very least, if organisations are not able or willing to share training record in their entirety, there is a strong argument for an LMS to record CPD activity and for that to be transferable.

Assessment Tools

There is some debate over whether this belongs in an LMS rather than as a separate system, but there is certainly a desire for a reasonable toolset within the LMS. The ability to manage pre and post activity assessment is seen as base requirement, and the use of the pre course assessment to determine whether someone should actually be able to take a specific course as a logical extension of that.

Related to this is a requirement to manage post course evaluation via the LMS, in a way that provides meaningful outcomes that can be integrated with other data.

Business Requirements

Outside of technical and learning specific requirements there are a range of common elements that businesses want from an LMS.

The LMS must be simple for users, and in no way provide barriers to accessing content or materials. At the same time it needs to be flexible enough to adapt to organisational needs, and also to different departmental needs. The experience needs to be consistent for the learners but customisable to suit the organisation. Modular components that can be easily configured by department without losing consistency, were a popular idea.

Outside of the LMS itself, organisations are looking for help in demonstrating the real ROI of LMS adoption. Vendors need to understand that the LMS is part of a strategy around people that is aligned to a business strategy and all parts of that must deliver on the bottom line. The LMS needs to support this strategy and fit with what the business wants, not the other way around.

Changes in the operating and regulatory environment for certain industry sectors, highlighted the need for industry specific features. This does provide a challenge for LMS vendors in that these requirements need to be implemented in such a way that they aren't imposed on other users that don't need them.

Most organisations are working hard to improve the accessibility of all of their web based content, both customer and employee facing. LMS vendors need to go beyond token support for the DDA (UK) and Section 508 (US) and provide a more accessible interface with more attention to contrast ratios and support for screen readers and other assistive technologies.

IT Requirements

The requirements of the IT function are both technical and organisational. Matters such as software updates, SLAs and scalability, are as much about performance and value for money as they are about technology. Ultimately of course, like the rest of the organisation, they want a system that just works, but there are some specific needs.

Minimising the requirement for in house IT resource was a common thread to the discussion, with Software as a Service (SaaS) and cloud servers, being cited as options for minimising the maintenance overhead and providing flexible resources. However, there is definitely still a requirement for a system that can be hosted internally if required. Whatever the approach, the outsourcing of hosting and basic operational management activities such as archiving and backups, holds much appeal.

This requirement for flexible resources also extends to development. Organisations clearly want a resource that can be called on only when needed; they don't want to pay for something they're not using. Support and licensing models will come under continued scrutiny as organisations demand better value, and there is an opportunity here for vendors to take a more creative approach. It is taken as a given that for continued successful development, organisations need to be provided with pre-production and staging servers as well as a production environment, and charging a licence fee for each of these is unpalatable.

The choice of open source vs proprietary solutions was something that caused some debate. There was certainly a great deal of interest in open source and its benefits, but at the same time there was desire for suppliers to have a proven track record. The adoption of open source is clearly becoming more acceptable, and this is an area that will continue to gain interest.

Something that wasn't so debatable, was a clear requirement for open standards and protocols. This applies both to industry specific standards such as SCORM and PENS and to wider standards such as support for OpenID and common data transfer formats.

A requirement for a secure system may go without saying, but IT have a need to maintain and manage security features without increasing user or IT overhead, for example, self service password renewals. Integration with single sign on has already been mentioned, but there may also be a requirement for integration with more complex systems such as token based access and multi part authentication.

The secure management of user data and compliance with regulatory requirements such as the Data Protection Act are high on the priority list.

Conclusions

At first glance this may just seem like a long wish list, but a more detailed reading demonstrates two things. Firstly, pretty much everything here is already available elsewhere in some form, and LMS vendors need to catch up with wider developments. Secondly, long development cycles and expensive development resource are not acceptable.

It seems that LMS still has a key role to play for many organisations, but the terms of their engagement with vendors needs to change.

About the eLearning Network CIC

The eLN CIC (elearningnetwork.org) is a non-profit organisation run by the e-learning community for the e-learning community. The eLN CIC is the number one source for guidance on best practice and future trends in technology-based learning and development at work, with more than 1,500 members in the UK and beyond.

For more information about the eLN CIC and eLN CIC events, visit the website at <http://elearningnetwork.org> or call +44 (0)1732 850650