WHAT IS A LEARNING CONTENT MANAGEMENT SYSTEM (LCMS)?

This last post in the “Alphabet Soup of Content Management” series (at least for now) addresses Learning Content Management System (LCMS) platforms.

An LCMS deals primarily with the creation and management of Content as distinct from Learning Management Systems (LMS) platforms which more generally deal with the process of delivering, tracking and reporting on the provision of on-line learning (or training or education, if you prefer) to the learners. A LCMS will typically integrate its content into an LMS although the functionality can overlap.

Why did LCMSs emerge?

Traditional LMS platforms did not handle the creation of content. Individual trainer and course developers would utilize general content development tools like PowerPoint or Word or Learning-specific authoring tools like Adobe Captivate,
Articulate and Lectora. While this worked reasonably well for individual courses, the proliferation of formats led to inefficiencies when viewed across an enterprise.

The Sharable Content Object Reference Model (SCORM) standard was developed to provide a level of commonality and enable content from different sources to be ingested into LMS platforms. It provides reusability in the sense that SCORM compliant content can be utilized on more than one LMS or LCMS.

SCORM, however, was directed at e-learning and did little to address the incompatibilities resulting from the use of different creation tools for different types of content. Enter the LCMS with the vision of “create once, publish many.”

**LCMS and Content Reuse**

A foundational concept of LCMS is that training/learning content should be conceived as small chunks (Learning Objects) that are then assembled into structured lessons or courses. The objective is to enable these learning objects to be reused or repurposed for other applications, saving costs and enhancing consistency.

This approach to learning content creation is typically a collaborative effort and a major function of an LCMS is to efficiently manage the required workflow. Most frequently there are Instructional Designers who create the reusable Learning Objects and Course Developers who integrate those objects into material that addresses specific needs within the enterprise.

The LCMS maintains a searchable database of the learning objects to facilitate access and also tracks their lifecycle to ensure that the content is current and consistent. More advanced LCMS implementations are able to assemble user and context specific lessons on the fly.
What is a Learning Content Management System (LCMS)?

What makes LCMS technology different is that it allows individual content objects to be organized into structured learning courses, complete with testing, assessment, tracking interactions, and communicating learner progress with Learning Management System (LMS) technology for reporting purposes.

What else does an LCMS do?

In order to provide value, an LCMS does much more that store and manage content; an indicative list of functionality includes:

- Learning content creation Workflow management, including program/project management, team workflows and version control.
- Controlled access to learning objects to ensure integrity and authenticity
- Data Security (encryption) over the entire content lifecycle to maintain privacy
- Integration with enterprise LDAP (I.e. Active Directory) and Single sign-on platforms to categorize and authenticate users
- Content Authoring tools to generate the reusable learning objects
- APIs for integration with LMS and other enterprise systems
- Ability to co-manage content with enterprise LMS and ECM
- Compatibility with SCORM and ExperienceAPI in order to track and report user interactions, including testing and evaluation.
- Reporting tools (stand-alone) and the ability to transfer experience/interaction data to the LMS where necessary.

What are the Limitations of LCMS?
The chief limitation of current LCMS platforms lies in the definition of the form(s) of “content” that are supported.

You may recall that the original LCMS were developed specifically to address e-learning. They were not designed to support other media or traditional instructor-led training.

More current XML-based LCMS have taken up the mantra “create once, publish many.” They have successfully bridged the gap between many electronic and print media, enabling the same content objects to be used to generate work instructions, operating manuals, and marketing brochures as well as course instruction.

A decided complication, however, arises when we consider “the new document” – video. Video content is different in two very important ways: 1) video files are dramatically larger, taxing the capabilities of text and image oriented storage systems and 2) video content involves different workflows for both creation and distribution.

While an LCMS may be able to address expanded storage capacity and catalogue video clips, they are not designed to support the video creation process which often involves editing, encoding and streaming as well as filming. An example is the important use-case where live video is broadcast or streamed for one purpose and then archived and edited for later on-demand access and/or incorporation in other learning events. This type of functionality requires an enterprise Video Content Management platform.

*Where do we go from here?*

There are a boundless number of use cases and evolving needs that are driving the evolution (some may say revolution) of content management in the enterprise and the result has been a proliferation of content management solutions. If you have
read my prior posts, you know that I envision a federated approach to enterprise content management where ECMs and MAMs and DAMs and LCMSs – as well as Video Content Management platforms like Tempo – work collaboratively to create business value for the enterprise.

What are your views?