Planning for Ecological Diversity in New Learning Environments: Interoperability Between Libraries and Course Management Systems

Louis E. King, Producer, Digital Asset Management, Digital Knowledge Production, University of Michigan-Ann Arbor
Brian Nielsen, Manager, Learning Support Systems, Northwestern University
Claire Stewart, Head, Digital Media Services, Northwestern University

http://www.umich.edu/~leking/cic-cms.pdf
Pick a category
Explore the issues
Document the questions
Move on to another topic

Course Features/Assessment
Virage quizzing, using the video as prompt for quizzes

TABLE: Otto, Carole, Diane, Craig, Robby
Questions:
As part of quiz questions, within CMS, using video content in an assessment context (maybe not whole clip, but a piece of the clip, without creating a second clip); how do you get that element in the course management system?
Can the assessment tool reference elements of a video, audio, text digital asset from a collection in the library?
Persistent identifiers to recover the resource and ship it around to another branch campus
Preserving authentication between different systems
Assistance to the faculty member to get the content into the tool (building quiz, need to search and discover the resources in the library – how does the help section support that)
If assign reading assignment, and expect students to annotate that in the CMS end, how is that document made available for electronic annotation in the context of formative assessment
Does the library see its role as supporting and contributing to this level
Assessment tool that could be used, one of the components could be coming out of the library, how is the course management system able to use the library materials for these purposes?
Example: Picture distance student reading Boewelf, assignment is to annotating, As the assessments, as intellectual property, where do they go in the institution (e.g., math test bank – should those actually be stored in the library as part of the intellectual property as part of the institution) e.g., can assessments become learning objects that are stored, shared and reused through the library system

An assessment authoring environment that is able to work outside of the CMS, but still

Premise: Piece of intellectual property that can be valuable enough to collect and share
What parts of the library resource and services are essential to teaching and learning activities that the CMS is supporting? (Note: the library is not monolithic, so there are distinct library services)

- Sociological/organizational issues
- Who makes decisions
- In current CMS, library isn’t represented as stakeholder in many cases (more than half)
- Role of library as active participant in the decision-making process
- How can the library be brought into the CMS discussion, if it isn’t already represented?

Technological issues
- How widespread are we able to share?

Legal/policy issues
- How widespread are we willing to share?

Also dealing with shared environment (not departmental issues at one institution), but dealing with inter-institutional issues, and intra-institutional

Bibliographic instruction done by library wasn’t originally considered content, but it is now becoming considered “content”

In those services that are being provided, how are those technologies being integrated?

Who is responsible for the technological integration (the CMS to middleware library services, or does the library build its tools to fit into the environment)?

REPORT OUT:

GROUP 1:
Future Projects
Integration
  Authentication (sign-on, role recognition)
  Help Desk support between CMS and library to improve end-user support
Resources
  Seamless integration to CMS, faculty could pick and choose from the digital library (go “shopping” oint he library content as well as the CMS “library” of content)

Recommender system (like amazon.com)
  Meta-data
  Point to other resources

Multi-university library functions and issues
  Integration (library/CMS)
  Intellectual property
Media vs “book” model (cultural issues enter in as a barrier there)
What is needed is a consortium of sorts.

GROUP 2: Assessment
Can the assessment tool reference “digital assets” beyond the book into pieces?
Who is responsible for the integration of CMS (whether authentication or other issue)
If looking at assessment in particular?
   Can we look at assessments as a learning object?
   Just library type of content that libraries generate (e.g., bibliographic)
   Or is library the repository, responsible for creating the store, retrieve, re-use
   underlying structure (including digital

GROUP 3:
Learning technologists iceberg (LMS/CMS/Learning Technology)
Library iceberg (all their repositories, and licenses) (Brad Wheeler)

All the stuff below the water – the faculty don’t care about
We will win if we hide the complexity, and put a simple user interface

Faculty member to be working in a course or learning management system, authoring
some type of learning activity, need to be able to invoke as needed that lets them search
through all things digital/library (don’t care whether it is a license, from local library)
Need persistent link, and drag and drop into the learning event that they are authoring

Same for student (plus some experts/wizards/guidance so students don’t get lost)

Meta-data problem; If going to do federated search across, how do cross-walks, so that
getting one record and not a lot of big gaps; real cost-benefit question on the creation of
ephemeral or dynamic resources (are they permanent, don’t always know in advance in
order to make decision about the benefit)
$50 -150 to create meta-data – over $1M to create for an n-sized learning object
repository
Isn’t like a book, where we know the persistence and can better guess the benefit

GROUP 4:
Single sign-on issues (biometrics, access)
CMS library systems
Publisher restrictions on materials available in an integrated system (restricted by what
and what form of availability)
Availability of system APIs
POSSIBLE CMS/LIBRARY PROJECTS
Suggested by attendees on cards at beginning:

- A reference list within a course site to get more information about/availability of sources
- Two-window drag-and-drop from LMS to CMS site
- Virtual reference service – allow students/faculty to interact directly with reference librarians
- Direct link to variety of library materials from within a course
- Coursepack/reading list development allowing faculty to find and use library materials within the course environment
- Learning object management
- Search through a federated search gateway to find assets and view requirements to use (a DRM system)
- Search of library resources
- Search of library resources
- Pre-selected library resources list
- A Learning portal that offers access to a larger umbrella seamlessly and dissolves the silos of information
- Campuswide learning repository committee that will include faculty, library people, faculty development people, IT people for a broad scope to envision seamless integration of interface and access
- Cataloging learning objects that can be used in CMS and that are listed in the main library catalog
- Identify library materials appropriate for faculty to include in CMS
- Access to the library catalog through the CMS with an interface as simple as Google
- Library services should be the center of the CMS – build the CMS around the library
- Integration of SUNY Learning Network with SUNY Connect, offering a SUNY-wide CMS AND LMS
- Libraries should build ways for a professor to click a link in the CMS and have library systems automatically generate a useful library resources page, with e-reserves, appropriate databases, etc.
- Determining and clearing Intellectual property rights for materials in the CMS
- The big goal is e-reserves and LMS in a holistic view
- Education effort to teach faculty how to work with their own scanners to put content into their course sites without seeking copyright permission
- Facilitating e-reserve deep linking within course syllabi and sites in WebCT VISTA
- Offer bibliographic instruction
- Automatic links to required readings – both older references and up-to-date newspaper scans
- Simplified research search strategies that cross vendor lines
• Offer special collection strengths, e.g. OSU cartoon/ graphic arts collection, other media assets collections
• Automatic links to scholarly journals in a discipline, offering such links within a number of CMS sites
• Develop rights management technology that would require a CMS to access content managed by the library in such a way that licenses, access privileges conform to TEACH Act
• Seamless sharing of digital media from media archives within the CMS
• Integrated indexes offered with single sign-on
• Video streaming archive for streaming to communications and business courses that would conform to TEACH Act requirements
• Course- and major-specific study guides within the CMS
• Citation support for student papers, being able to drop hyperlinked references directly into work
• DOI-based access to on-campus materials available in such resources as JSTOR, etc.
• A content management system holding general collections of departmental research and teaching resources
• A resource aggregator tool based on OKI to query multiple repositories and vended solutions, aggregating for faculty to share with students, with seamless auth/auth
• Focus search tool – a tool created by faculty to help student search more effectively

BARRIERS/ISSUES
• We see a lot of faculty asking for bibliographic instruction, and limited help in selecting materials, most faculty are off on their own – how ready would they be to accept the library’s more active participation? Trust issues as well as a sense of themselves as the content specialist
• Message – very busy, if can make it easier and faster, more likely to adapt and use the help (not doing the selection for them, but expose the library resources so it is easy to find and use them)
• Role of library to make it easier
• Rather than trying to push them below the surface (and the techniques for navigating around underneath), create the tools to do their solitary work
• If faculty does call (make a page that will help my students “find stuff” – perfect product, one professor calls and one class gets the resource); get imperfect product that is generic (database and reserves) and nine out of 10 have the imperfect, but better than nothing product; then add the ability to customize the imperfect product
• What about the faculty that don’t use CMS? Also an opportunity