

E-Learning Spaces: Librarians in Course Management Systems (CMS)

An ACRL/Instruction Section Current Issue Discussion Forum

Sunday, January 21, 2007, 10:30 a.m. to 12 noon

W Seattle Hotel (Great Room 2)

Conveners: Merinda McLure & Karen Munro

Introduction & Overview

Over the last ten years, electronic courseware—also called course management systems (CMS), collaborative learning environments (CLE) and learning management systems (LMS)—has been widely adopted in higher education. Across all two- and four-year and non-degree-granting colleges that responded to the 2004 National Survey of Information Technology in American Higher Education, 40% of classes use CMS, and 52% of campuses have a strategic plan for the use of CMS (EDUCAUSE, 2005, p. 29). For instructors, a CMS offers a wide array of resources and benefits, ranging from online gradebooks to electronic discussion tools. Librarians, however, may find the CMS complex and challenging. Simply put, librarians must find ways to integrate with and embed in CMS, or they risk being shut out of one of the central instructional settings in higher education.

Fortunately, librarians have devised a wide range of creative approaches to CMS. Shank and Dewald (2003) distinguish between strategies implemented at the "macro" level, creating a presence for the library as a whole at a top level of the CMS, and those implemented at a "micro" level, tailoring specific library resources and services to individual courses or departments. Some libraries use a combination of these approaches, and still others are pushing the current boundaries of both the library and CMS with technologies such as RSS (Corrado & Moulaison, 2006; Kirlew, 2006) and virtual reference.

What Is a CMS?

There are many CMS products available, some commercial and some open-source. The leading commercial CMS products in the US are Blackboard and WebCT (now owned by Blackboard). The leading open-source projects are Sakai and Moodle.

Some of the most common features of CMS products are:

- simple WYSIWIG (What You See Is What You Get) web editor
- file uploading tool for course readings, etc.
- gradebook
- discussion tool
- electronic "drop box" for student submission of assignments
- automated email announcements system, and email archiving

CMS features may also include:

- wiki
- customized content for individual courses
- copyright-clearance tool
- chat tool
- administrative tracking features, showing student and faculty use of the system

Pedagogical Implications

Online courseware is a newcomer to higher education, and its adoption has been widespread and rapid. The literature is just beginning to reflect the ways in which CMS-based instruction differs from classroom teaching.

Trends show that CMS is often used in conjunction with classroom instruction as a component of "blended" or "hybrid" learning, rather than as a stand-alone system for distance learning. As a result, librarians increasingly encounter students in the CMS setting who are not distinctly "distant" nor "on site," but who are effectively both, to various degrees and extents. The behavior and expectations of students and teachers in this new, hybrid educational setting are still being explored.

The strengths of CMS (24/7 access, document archiving, streamlining of administrivia, etc.) suggest its potential for freeing up classroom time for more in-depth discussions and activities. Ideally, CMS can facilitate more learner-centered classroom sessions. The time and learning limitations of classroom-based one-shot library instruction may be minimized by combining the CMS with classroom instruction. However, other challenges remain: garnering course access and widespread campus support for library instruction in the CMS can be a serious hurdle for librarians. And new challenges continue to arise: librarians must often be creative and proactive in securing access to the CMS, and must identify useful alternatives to classroom-based learning experiences.

Student feedback on CMS suggests that the most popular and widely-used tools are the syllabus and reading lists, with online discussion tools ranking much lower (Borreson Caruso, 2006; Ansorge & Bendus, 2004). Understanding how students use CMS allows librarians and teachers to play to the system's perceived strengths, while diminishing its perceived weaknesses. For librarians, this may mean the creation of "stocked ponds" of course readings or digitized source materials, or the creation of tutorials or pathfinders to guide students through basic research processes. Regardless of how librarians engage with CMS, careful assessment of the perceived usefulness of their efforts is in order.

How Can Instruction Librarians Use CMS?

Ideally, CMS allow librarians to move both instruction and library resources directly "into the research and learning workflows of the user" (Dempsey, 2004).

Librarians working within the CMS can leverage the system's ability to integrate electronic files and share and reuse content. Their presence within students' course sites helps to promote the library and its services, and allows them to engage students and faculty directly or indirectly, synchronously or asynchronously. Librarians may elect to work with specific classes or departments (the "micro" approach), or may contribute to the creation of a "macro" level cross-campus library shell. Depending on resources and relationships, librarians may be involved solely in a given course's CMS site, or they may also teach the students in the classroom. The librarian may work with teaching faculty to design resources specifically for the CMS, or may reuse existing library web pages. The CMS also offers a variety of tools for feedback and assessment.

Examples of how instruction librarians are engaging with CMS:

"Macro"

- presenting library-related possibilities and perspectives as a member of the campus CMS committee
- collaborating with the campus CMS staff to embed a library presence in all CMS course sites
- communicating with faculty to offer ideas and assistance for incorporating the library into CMS course sites
- embedding within all campus CMS course sites a link to the library's virtual reference or IM service
- clustering broadly applicable library links and resources—often in a library template or under a standardized "library tab"—and consistently including these clusters in all campus CMS course sites

"Micro"

- connecting students to tailored "new books" lists, online tutorials, and updates to both, via customized RSS feeds to CMS course sites
- using the CMS chat/threaded discussion features to participate as an "embedded librarian" in online course discussions
- providing virtual office hours to a specific course, via the CMS chat/email features

- providing faculty with embeddable, persistent links to fulltext course readings, or to relevant proprietary databases
- utilizing the CMS quiz feature for instruction-related assessments or feedback questionnaires

Where Will CMS Take Us?

Institutions of higher education continue to invest heavily in elearning as "a mission-critical component of the educational environment" (Dewey, DeBlois, & the 2006 EDUCAUSE Current Issues Committee, 2006, p. 76). In this context and as "course management systems are past the incubation stage at many institutions," (Borreson Caruso, 2006, p. 2) there is clear interest in more closely assessing the influence of CMS on student engagement, learning, and teaching. Whereas CMS have largely adapted the structure of the traditional classroom to online delivery, current discussion looks ahead to next generation systems that are truly learning management systems (LMS)—informed by pedagogical concerns and more conscientiously designed to facilitate learning (Nelson, 2006, p. 5-6).

Borreson Caruso suggests that "the real potential of the CMS as a learning platform must await a maturation in the pedagogies with which they are bundled" (2006, p. 8). If this is true, then librarians working in courseware must increasingly take into account usability concerns and student learning outcomes. Librarians and faculty must learn more about student communication behaviors and workflows, and about how the CMS contributes to outcomes such as critical thinking and self-confidence (Weigel, 2005). Regan and Walcher (2006) encourage librarians to reconceptualize the CMS as not simply a set of discrete electronic tools, but as a scholarly environment analogous to a bridge, portal, or passageway.

Key areas of change and development for CMS are: the implications and integration of new, increasingly social "Web 2.0" tools and behaviors; the potential for greater integration with commercial digital content (Nelson, 2006, p. 5-6); the uneasy co-existence of open-source and commercial CMS; and intellectual property and copyright issues such as the recent Blackboard patent and its subsequent legal challenges to its competitors. Librarians have good reason to keep current with broader CMS developments as they explore the software's potential for teaching and learning.

A Follow-Up From the Discussion

At the Midwinter 2007 Current Issues Discussion Group where this topic was discussed, we asked attendees some questions about their experiences with CMS. We hoped to get an informal sense of how librarians across the country currently interact with and consider CMS. What systems do we use? What successes and failures have we experienced? What are our most pressing concerns? Here's what we gleaned from our discussion.

What CMS Do You Use?

Answers ranged widely, and included the following systems:

- ANGEL
- BLACKBOARD
- DESIRE2LEARN
- E-COLLEGE
- I-LEARN
- ISOPH BLUE
- MOODLE
- SAKAI
- SOCS (homegrown)
- VISUAL ONE
- WEBCT

What is one thing you want to take away from this discussion?

Notably, many people's responses focused on issues of finding time, resources, and energy to engage with the CMS. Specific responses included:

- What are academic libraries doing with CMS that might be transferable to public libraries?
- How can the library become a useful and used presence in a CMS?
- How can the library use a CMS and why should it?
- What are the pedagogical ramifications of online vs face to face instruction?
- Can I use a CMS for assessment?
- How to get faculty to work with us and work with us more.
- What's available out there.
- How to insert ourselves into the CMS without faculty permission/invitation.
- Have librarians developed library reserve systems that include a bib/recommending function?
- How to become a part of the CMS community.

- How to integrate an existing reserves system with a CMS.
- How to address critical thinking skills/higher level thinking in a virtual/blended environment.
- Are certain CMS (i.e. Moodle?) better than others for instructional design?
- Does it matter where the push to use the CMS is coming from (students/administration/distance education folks)?
- How to integrate databases into CMS.
- New ideas!
- How to deliver without diluting.
- Creating more interactive modules to better engage students in the CMS.

What questions do you have about particular features or functions within the CMS?

- What are libraries doing about copyright clearance for materials uploaded to e-reserves?
- Have any libraries purchased the Blackboard Copyright Building Block (a licensed add-on to the BB software that processes copyright requests through the CCC). None had.
- Are tools available for determining CMS use statistics? Some libraries have used DBDirects as a tool for this.

What challenges and opportunities for accessing the CMS exist on your campus?

- Different institutions offer different opportunities. Small and large institutions may have very different ways of running and accessing the CMS.
- CMS gives all students an opportunity to express themselves. EFL students have in some cases been more participatory in the CMS than they might have been in the classroom, because they could compose responses and questions without worrying about spoken language anxieties.
- The CMS can 'flip' what are typically synchronous and asynchronous course elements. For example, the lecture element of a course is traditionally delivered in-person. In a class using CMS, lecture may be moved online and class time refocused on homework or case study work.

What successes have you experienced, and what future plans are you laying for CMS?

- There is interest in pulling licensed database content (i.e. full-text articles from

databases) into the CMS.

- There is value in connecting librarians, faculty, and campus instructional designers to work together in the CMS.
- Buy-in from systems administrators is key to the library's success in CMS.
- Success story: Penn State embeds links to departmental and course-level guides in the CMS.
- Success story: One library noted that they have a presentation slot in the campus IT fair, allowing them to establish a technology-related presence, and make contact with campus technology staff every year.

Readings & Cites

Ansorge, C. J., & Bendus, O. (2004). The pedagogical impact of course management systems on faculty, students, and institutions. In R. Bruning, C. Horn, & L. M. Pitlyk Zillig (Eds.), *Web-based learning: What do we know? where do we go?* (pp. 169-190). Greenwich, CT: Information Age Publications.

Tags: pedagogy, student behaviors, faculty behaviors, CMS usage trends

Bell, Steven. *Academic libraries and course management software: a resource page for librarians, instructional technologists, system administrators and faculty.* (n.d.). Retrieved December 14, 2006, from

<http://staff.philau.edu/bells/cmsresourcepage.htm>

Tags: library integration, general resources for libraries and CMS

Borreson Caruso, J. (2006). *Measuring student experiences with course management systems* (EDUCAUSE Research Bulletin, 19). Retrieved December 14, 2006, from <http://www.educause.edu/LibraryDetailPage/666?ID=ERB0619>

Tags: student learning, student expectations, CMS usage trends

Burd, B. A., & Buchanan, L. E. (2004). Teaching the teachers: teaching and learning online. *Reference Services Review*, 32(4), 404-412.

Tags: learning styles, teaching styles, online teaching

Corrado, E. M., & Moulaison, H. L. (2006). Integrating RSS feeds of new books into the campus course management system. *Computers in Libraries*, 26(9), 6-64. Also available for free online here:

http://www.infotoday.com/cilmag/oct06/Corrado_Moulaison.shtml

Tags: new book lists, RSS

Dempsey, L. (2004, October). Pick up a portal. *Update Magazine*. Retrieved December 14, 2006, from <http://www.cilip.org.uk/publications/updatemagazine>

Tags: portals, integrating library resources into user workflows, network presence

Dewey, B. I., DeBlois, P. B., & the EDUCAUSE Current Issues Committee. (2006). Top-10 IT issues, 2006. *EDUCAUSE Review*, 41(3), 58-79. Retrieved May 19, 2006, from

<http://www.educause.edu/ir/library/pdf/erm0633.pdf>

EDUCAUSE. (2005). *Pocket guide to U.S. higher education*. Retrieved December 14, 2006, from <http://www.educause.edu/LibraryDetailPage/666?ID=PUB2201>

Tags: trends in higher education, higher education demographics

EDUCAUSE Evolving Technologies Committee, Ganjalizadeh, S., & Molina, P. (2006). *Overview of open source learning management systems*. Retrieved December 14, 2006, from <http://www.educause.edu/LibraryDetailPage/666?ID=DEC0602>

Tags: open-source LMS, interoperability

Feldstein, M. *e-Literate*. Retrieved January 5, 2007, from <http://mfeldstein.com/>

Tags: Blackboard patent, online learning, intellectual property

[See also The Chronicle of Higher Education <http://www.chronicle.com> and search "blackboard".]

Gibbons, S. (2005). Course-management systems. *Library Technology Reports*, 41(3), 7-11.

Tags: collocation of library resources/services and course content/activity, traditional subject guides, history of CMS, individual CMS products

Gibbons, S. (2005). Integration of libraries and course-management systems. *Library Technology Reports*, 41(3), 12-20.

Tags: library integration barriers, interoperability

Gibbons, S. (2005). Strategies for the library: CMS integration barriers. *Library Technology Reports*, 41(3), 24-32.

Tags: library integration barriers, interoperability

ILI-L Discussions

A variety of discussions about librarians and CMS have taken place on this list.

Search the list archive at <http://lists.ala.org/www/arc/ili-l>

Tags: practical library/CMS integrations

Kirlew, P. (2006, June). *Integrating RSS, video tutorials and course management software with library instruction and outreach initiatives for university students and faculty*.

Paper contributed to the Special Libraries Association Annual Conference, Baltimore, MD. Retrieved December 14, 2006, from <http://www.sla.org/PDFs/2006CPKirlew.pdf>

Tags: library instruction, RSS, social software, video tutorials

Ladner, B., Beagle, D., Steele, J., & Steele, L. (2004). Rethinking online instruction: from content transmission to cognitive immersion. *Reference & User Services Quarterly*, 43(4), 329-337.

Matthew, V., & Schroeder, A. (2006). The embedded librarian program. *EDUCAUSE Quarterly*, 29(4), 61-65. Retrieved December 14, 2006, from

<http://www.educause.edu/LibraryDetailPage/666?ID=EQM06410>

Tags: library instruction, embedded librarians, discussion forums

McDonald, R. H., & Thomas, C. (2006). Disconnects between library culture and millennial generation values. *EDUCAUSE Quarterly*, 29(4). Retrieved December 14, 2006, from

<http://www.educause.edu/apps/eq/eqm06/eqm0640.asp>

Tags: student expectations, student behaviors, library culture, library services

Minielli, M., & Ferris, S. P. (2005). Electronic courseware in higher education. *First Monday*, 10(9). Retrieved December 15, 2006, from

http://www.firstmonday.org/issues/issue10_9/minielli/

Tags: overview of CMS systems, pedagogy, blended learning environments

Nelson, M. R. (2006). *Emerging digital content delivery technologies in higher education* (EDUCAUSE Research Bulletin, 20). Retrieved December 14, 2006, from

<http://www.educause.edu/LibraryDetailPage/666?ID=ERB0620>

Tags: higher education, technology

Randall, S. (2004). Learning systems & us. *Library Journal*, 129(16), 34-35.

Tags: OpenURL, interoperability

Regan, A. E., & Walcher, S. (2005). Environmentalist approaches to portals and course management systems. *Journal of Library Administration*, 43(1), 173- 188.

Tags: student learning, pedagogy, online learning, online instructional design

Shank, J. D., & Dewald, N. H. (2003). Establishing our presence in courseware: Adding library services to the virtual classroom. *Information Technology and Libraries*, 22(1), 38-43.

Tags: CMS/library integrations

Weigel, V. (2005). From course management to curricular capabilities: A capabilities approach for the next-generation CMS. *EDUCAUSE Review*, 40(3), 54-67. Retrieved December 14, 2006, from

<http://www.educause.edu/LibraryDetailPage/666?ID=ERM0533>

Tags: curricular design, e-learning, educational outcomes