The LMS and the Library

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What might be the digital equivalent of walking by the library on your way to class?

Library buildings have traditionally been considered gems on college campuses: they are usually a centrally located, buzzing hub for students and faculty from across many disciplines. Universities tout the number of books and other materials in their collections, and the library becomes a symbol of the wealth of knowledge on campus. The library is always a stop on the college tour for prospective first-years. Students walk into and past the library building; the library is in focus, or at least in the periphery.

Contrast that with what a student may see when they log into their courses online. In a typical learning management system (LMS), where assignments and readings are posted, the user interface is designed to resemble a file directory rather than a college campus. When a student spends more time in the LMS than on campus (particularly for students in fully-online programs), their experience of what an education looks like may diverge greatly from the on-campus experience, especially regarding the library. The student on campus might walk by the library on the way to class every day, but the student online may never see the word "library" in the LMS at all.

Unlike the traditional college campus, the LMS was never designed to incorporate the library, much less display it as a crown jewel. So at institutions with online and hybrid courses, librarians are finding creative and fruitful ways to insert the library into the LMS. In this column, I give a brief overview of five ways that libraries can be incorporated into an LMS, ordered from easiest to most difficult to scale, or in other words, least to most personal.
What is an LMS?

A learning management system (LMS) is an online hub where students can access their class readings, post assignments, and communicate with each other and their instructor. Some online classes are taught entirely through the LMS; some on-campus classes use the LMS as an online component. Popular LMSes for higher education in the United States include Blackboard, Canvas, and Moodle.

N.b., sometimes "course management system" (CMS) is used interchangeably with LMS. CMS can also mean the more generic "content management system."

Insert the library in the LMS template

For libraries just beginning to explore integration with the LMS, an easy place to begin is the template. In collaboration with the campus' LMS administrators, librarians can push for a link to the library somewhere prominent in the generic course template. This way, at least the word "library" and a link will appear in every page in the LMS.

For a slightly more robust library presence, librarians can create a page that is included in each course template. This might appear as a “Library Resources” folder or link alongside the syllabus, readings, grade center, etc. Modules on the page might include a search box for the library’s OPAC, tutorials and links to research guides, and general information such as library hours.

This first step – claiming a small amount of real estate in the LMS template – is an easy way to put the library in students' periphery. It can save them several steps in accessing the library. Even if they don't use the modules or click the link often, this is the digital equivalent for students of walking past the library on the way to class.

Offer embeddable LibGuides to faculty

Some third-party tools can be plugged into an LMS using something called an LTI tool. Springshare has an LTI tool for LibApps, their suite of library apps that includes LibGuides. With this tool, faculty members can embed general-subject or subject-specific LibGuides into the LMS (Richards 2017). For instance, any writing course would benefit from embedding a LibGuide dedicated to citation practices. As another example, a Psychology 101 course might embed the library's entire "Psychology" LibGuide, a single page of it, or pick and choose from its boxes. To the student, these embedded LibGuide resources could appear as a "Psychology research in the library" folder right next to their coursework.

To take full advantage of embeddable LibGuides, librarians would first need to work with their campus' LMS administrators to enable the LibApps LTI tool. Then they would need to work with course instructors to promote the capability and demonstrate how to include LibGuides content in a course, since it is a multi-step process that may not be intuitive.

The greatest benefit of LibGuides integration is that it builds on the work that librarians are already putting into their LibGuides, and it increases the guides’ visibility. This content can remain up to date, too, since any changes to the LibGuide will be reflected in the LMS. Another advantage is that rather than enabling just a generic link to library resources, this approach can be subject- or even course-specific. Moreover, this strategy is faculty-driven. Once the LTI tool is enabled, it's up to the course instructors to decide how to incorporate LibGuides materials. Librarians would not need to be involved in every course once faculty are aware of and understand the embedding process for guides.
This might be the digital equivalent of librarians giving a wide range of faculty course-specific handouts that they could choose to pass on to students.

Create a collection of graded modules for faculty use

Similar to enabling embeddable LibGuides, librarian-designed LMS modules offer faculty a way to include library instruction in their courses without requiring hands-on efforts from a librarian. In this approach, librarians create a number of tutorials and quizzes in the form of modules within the LMS. These may be general-subject or subject-specific. As with embeddable LibGuides, librarians must keep the modules up to date and promote them to faculty. The added advantage is that because the modules are located within the LMS, there is the possibility of connecting them with course gradebooks, meaning that instructors have the option of assessing how their students have engaged with and retained the information. Note that the process of creating these modules may differ in feasibility between campuses and LMSes.

One example of this approach is described by Moran and Mulvihill (2017), who were involved in the creation of 15 Information Literacy Modules on their campus. Librarians worked with an instructional designer to create these graded modules, such as “Avoiding Plagiarism,” specifically for online courses. Modules were kept in a repository that was separate from the LMS, so faculty interested in using a module would have to create a local copy of it and integrate it with their gradebooks. The authors note that while the modules were heavily used, they required a fair amount of librarian time to keep up to date, and the process for faculty to include these modules in their courses was challenging. Moreover, librarians did not have access to student grades and so could not fully assess how effective the modules were.

This approach may be the digital equivalent of giving a wide range of faculty a packet of library research handouts with quizzes that they can optionally give to their students.

Create an online library mini-course

For a more streamlined, direct approach to library instruction, librarians could design a mini-course in which all students in a subgroup are automatically enrolled. Rather than encouraging faculty to select several modules to approach a topic, this strategy could consolidate the material into one librarian-directed course. For instance, an “Introduction to the Library” course could be made available for several weeks as part of first-year orientation. Students would be automatically enrolled and required (or encouraged) to pass a quiz. Rather than relying on faculty to do the work of finding and incorporating library modules, this strategy is librarian-directed. While designing a course is time-consuming, challenging, and necessitates working with multiple stakeholders, this approach can scale because it can reach many students at once without too much overhead on the part of librarians and instructors during the semester. However, for students, this is still a relatively impersonal interaction with the library, which may impact the course’s effectiveness.

Moran and Mulvihill (2017) also describe their free-standing “Introduction to Library Strategies” Canvas course, in which over 1,600 students from two first-year courses were automatically enrolled. Librarians and support staff designed the course, and instructors handled grades and curriculum integration. A major advantage that the authors describe is that maintaining the course is relatively easy, and library instruction reaches many students without requiring a large amount of time on
librarians’ part. Assessment beyond auto-graded multiple-choice quizzes proved to be challenging, however.

This might be the digital equivalent of librarian instruction delivered to students in every section of a course in a packed auditorium, followed by a quiz.

**Embed a librarian in a course**

The last approach I will mention in this column is embedding a librarian in an online course or course section. This is the most personal or “high-touch” way a librarian can deliver instruction to students in an online course, but it is also the hardest to scale with a 1:1 librarian:course ratio.

To embed a librarian in the course, the course instructor must list the librarian in an instructional role within the LMS. Embedded librarians can post materials to the course, give quizzes, and interact with students on the discussion board. This could be over the course of just a week or, similar to traditional in-person embedding, it could last a full semester. As in the approaches previously described, the success of this strategy depends on promotion and librarian-faculty collaboration.

Embedded librarians must be familiar with the LMS. Because they are delivering course— or section-specific instruction, they should also be familiar with the curriculum to tailor their teaching. This approach is likely to be the easiest to assess, since librarians can see the grades for any quizzes they give students, and they might even be able to see the assignments that students hand in post-instruction and judge for themselves how well students incorporated new research skills.

This is the digital equivalent of a librarian guest-teaching a class, ranging from a typical “one-shot” to co-teaching over the course of a semester.

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Whether it’s a peripheral link or a fully-fledged course, the approach that libraries take toward integrating with the LMS can be crucial to connecting with students online. Three of these five strategies rely on connecting with faculty, too, just as the success of library instruction on campus does. Libraries can succeed in LMS integration without overloading librarian workloads by leveraging the work that librarians are already doing and choosing an appropriately scalable strategy.

**References**
