# Comfort Food for All:
# The Scalability of LMS-Embedded Librarianship

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## The Question of Scalability

Embedded librarians provide information literacy instruction where students prefer to do course-related research: online. The learning management system (LMS) provides an effective arena for librarians to collaborate with professors and reach students with library resources and services alongside course content and assignments. The single question that continues to be raised involves its scalability. Can this information literacy model, which operates well at one size, be expanded successfully to support many users? Is this a service that will operate well on the grand scale, say of a major university? In other words, dare conscientious instruction librarians serve up LMS embedded librarianship to their campus constituencies? Are they simply filled with pride or foolishness to promise what they cannot deliver to the campus?

In an attempt to digest this hard yet valid question, let us consider what we know about the state of information literacy, its current manifestations, and students' proclivities today. The authors have collected data from their 2011 survey (see Appendix 1), the literature, and personal experience. Factoring this evidence, the authors continue to declare that delivering information literacy instruction in collaboration with faculty to students working on course-related research assignments through the LMS is doable. Indeed this method is preferred by students and a pragmatic solution to the issues facing us. The on-going, national study Project Information

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Literacy clearly documents that undergraduates struggle with course-related research while underutilizing librarians (Head & Eisenberg, 2010). The need for information literacy is real, but the traditional delivery approaches are often overlooked by students.

## Reviewing Traditional Information Literacy Methods

Traditional methods of providing information literacy instruction are proving less effective as student research behavior changes along with the culture and technological developments. Students do not instinctively start research at the library website; moreover, those who visit the library homepage often fail to find tools posted there, including screencasts that explain how to search subject databases. For example, according to an OCLC survey, "84 % of the total respondents begin their search for information using a search engine; no respondents begin at the library Web site" (OCLC, 2010). Procrastinating students may never enter the library nor drop by the reference desk to learn how to get started with their assignment. Frustrated or risk-averse students may never ask the instruction librarian in a one-shot session how to apply advanced search techniques to avoid sorting through so many results. Regrettably, only a relatively few students register for elective information literacy credit courses, so many do not understand how trends in scholarly communication, publishing, and emerging technologies impact the research process in coursework. Struggling students working on a semester research project or senior capstone project may fail to request a research consultation to receive individual assistance. Students today still need guidance when it comes to scholarly research, yet they tend to seek help from trusted mentors who are available in their time of need. LMS embedded librarianship enables a librarian to play that very role and incorporate these traditional

information literacy approaches as needed and requested. The LMS embedded librarian makes library resources and services available 24/7 within the framework of the course. Students appreciate the online, personal approach and access to a knowledgeable research coach, familiar with the assignment and endorsed by their professor.

## BARRIERS TO GROWTH

Embedded librarianship is a major change to the standard mode of library work. As such, it can raise concerns of overloading librarians' workloads and impacting service. Below are statements that answer commonly raised questions about the impact of embedded librarianship:

1.  **LMS embedded librarianship is not necessarily a time-consuming operation.**

    Time is limited, so librarians who anticipate and offer services needed by scholars and students, are investing that resource thoughtfully. Although faculty and students benefit from partnering with librarians in the LMS, not all come to the physical library and request help. It is therefore more effective to free a librarian's time to support teaching and learning in the university's LMS and place library resources and services in their courses. This method meets users' preferences and needs: online accessibility to a librarian who understands research assignments and is willing to share strategies and identify appropriate databases and electronic collections. Traditional approaches will continue to be utilized in delivering information literacy instruction, but they may no longer be primary outlets. When requested, the embedded librarian may still teach information literacy skills in one-shot classes or meet with students for research consultations. LMS embedded librarianship enhances a sense of community and extends communication. By redirecting staff time and energy to LMS embedded librarianship, doors are opened and relationships are deepened. Methods of managing time and workload are recommended. Referrals to appropriate campus offices and units are possible and setting reasonable boundaries to monitor research requests and interact with students make sense. The enterprise was never intended to require constant human surveillance. Everyone turns off the light and goes home for the day, including LMS librarians.

    Sometimes roadblocks eat up time. For example, librarians may find launching the program time-consuming if they encounter resistance from administrators who claim they will not pay librarians to team-teach, information technology staff who will not grant librarians access to the LMS, faculty who fear sharing course control with outsider-librarians, and librarians themselves who resist assuming new duties. If this is your dilemma, start small and grow gradually. In contrast, other programs are so successful, librarians feel swamped and fear popularity will take them down.

Problem-solving and perseverance will win the day as it did at Duke University where LMS embedded librarianship was delivered to 1700 courses through a technological breakthrough incorporating the most relevant LibGuide into each course site (Daly, 2010).

2.  **There are approaches and tools that can be used to manage the workload of LMS embedded librarianship.**

    Clearly, all faculty, staff, and students do not make constant demands on the library website, reference desk, one-shot instruction sessions, or information literacy courses. It is safe to conclude not all will collaborate initially in the LMS. Instructors' expectations also differ. Some are satisfied with a macro approach of a LibGuide, library website link, standardized template, or research screencast. In contrast, others request a micro approach of library resources geared to a specific assignment and created by the LMS embedded librarian. In addition, time demands vary during the term. Sometimes startup work is demanding, while for other courses a two week research project during the semester may be the busiest period.

    Even with the need to create that micro-focused content, many forms of instructional content can be developed with reuse in mind. Once content is created, it can be stored and shared among embedded librarians and recycled in other courses needing similar information and tools. It is now possible to explain a research concept or resource to one hundred enrolled students just as easily as one through a screencast. The tools of the LMS are also powerful communication means for librarians, whether via the mail tool, discussion board, or announcements. The reach of the embedded librarian is great, and the ability of librarians to depend on each other's work even greater. Many collections of instructional content are publicly available for sharing, which helps librarians save time.

3.  **LMS embedded librarianship need not be provided for all classes.**

    All classes stand to benefit, but it is reasonable to prioritize collaborations with certain constituencies on your campus. Working with course instructors that require research assignments is one guiding principle. Partnering with distance learning faculty and programs to provide equitable access of library resources and services is a second. Developing information literacy instruction for given populations might make sense: seniors working on capstone projects, first year undergraduates new to academic research, or programs that focus on honors or international students. Collaborating with faculty teaching courses in research methods, whether discipline-specific or at the graduate level is another logical parameter.

Selecting courses or programs that meet library criteria enables limited numbers of librarians to begin embedding in the LMS. Certainly, instruction librarians do not teach sessions for 100% of classes currently. Often interested professors initiate the request for a one-shot bibliographic session. Some far-sighted institutions do require a certain amount of information literacy instruction by librarians. In these cases, LMS embedded librarianship may be used to advantage as a delivery mechanism. Once embedded librarians begin, word-of-mouth marketing typically contributes to more requests from faculty who would like the same service for their students. In time, more librarians will be trained and assume responsibility in LMS courses. Thus the information literacy mission is accomplished and the library's reach extended in ways appreciated by stakeholders.

4.     **LMS embedded librarianship will impact the services and non-instructional staff of the library.**

Embedded librarianship can be practiced on a small scale without much interruption of other services and activities. It can be argued, though, that the value of this method of information literacy instruction is greater than other library operations. Librarians should regularly assess the impact of their embedded librarian program as well as other services. There are ways to reduce librarians' focus on classroom library instruction and use that time more effectively in LMS coursework. Instruction librarians who are not yet embedded can be trained to work with the LMS and increase the library's capacity to accommodate more embedded classes.

In addition to changes among instruction staff members, library administrators can also realign other staff members' duties and change or cease other operations. With the ability to outsource many technical services activities, libraries can shift staff members engaged in behind-the-scenes operations into public services. This allows for more staff to be available to interact with students and faculty in the library, freeing up time for librarians to work with embedded classes. Academic libraries are increasingly adding e-books to their collections (alongside many other electronic resources already in place). While these materials still require cataloging, many steps of processing are not required and therefore there is a gain in staff time. Librarians should also examine services to see if any should be curtailed. Savings in time and staff can be shifted to more fruitful operations.

## THE CURRENT STATE OF LMS EMBEDDED LIBRARIANS' WORKLOADS

The respondents to the authors' survey come from a variety of types of institutions, with 55% representing four-year universities with graduate degrees and 23% coming from community colleges. Their libraries averaged 13.4 FTE librarians per institution, an average of 4.1 FTE of which are embedded in LMS courses. That puts the percentage of all MLS librarians who are embedded at an average institution at 31%. Of those embedded librarians, 44% are embedded in five or fewer courses per semester, while 15% are embedded in 11 or more courses per semester. 49% of the respondents believed that the number of courses they are embedded in would grow in the coming year, while 37% believed that the number would stay about the same.

Librarians are taking advantage of the opportunity the LMS presents to be involved closely with classes and impart their knowledge of research skills. Libraries that embrace embedded librarianship are diverse in type, and already are committing a significant percentage of staff to these efforts (if only as part of their duties). As numbers increase, more changes in the focus of staff duties will occur.

## JUSTIFYING AND GROWING LMS EMBEDDED LIBRARIANSHIP

The key to success in growing embedded librarianship on your campus is not to lose track of the reasons to undertake it. What inspires us to take on a pilot effort should, if it works, keep us returning to improve our efforts with repeated classes and add on additional instructors and courses. Here are some of the ways in which embedding simultaneously improves library service and helps build opportunities to interact with students in research:

1.     **Faculty Collaboration Leads to Referrals**

LMS embedded librarianship requires faculty collaboration to get off the ground, but once the instructor adds the librarian to the course, students perceive the embedded librarian as an active member of the class. This is very good positioning as librarians are no longer left behind, but integrated within the course. Indeed, faculty, whether in the classroom, office, or email, now direct students with research questions to the embedded librarian who understands assignment requirements, knows the library collection, and is experienced in searching. Thus reference work picks up.

2.     **Research Assignments Enhanced**

As an embedded librarian partners with the same professors each year, the collaboration is likely to develop and deepen. Often this leads to enhanced information literacy efforts. A faculty member may ask you to improve or redesign an assignment. Sometimes a professor may request that you create a screencast to explain how to search a subject database or conduct a literature review. The proactive librarian might propose including an information literacy worksheet as part of the assignment or as extra credit. Deeper learning is possible for students, one that draws upon the instructor's subject expertise and the librarian's

knowledge of the collection, library services, and information literacy.

### 3. Greater Interaction with Students

Students, who have seen your LMS picture and recognize you on sight, begin dropping by the Info Desk and your office to ask research questions. Sometimes they call, text, or IM. The embedded librarian more efficiently interacts with the entire class through the LMS mail tool or by posting to the discussion board to provide guidance to common research questions. When one student poses a question, it is safe to assume others are grappling with similar questions. In the same thirty minutes, sixty students stand to gain rather than one. Then, too, the questions students pose are more complex than typical reference desk inquiries since they have confidence that the embedded librarian understands their research needs. They do not have to start at the beginning or interact with a stranger, uncertain how they will be treated. The introduction barrier has already been broken by the instructor.

### 4. More Electronic Resources Used

Embedded librarians streamline the research process for students while promoting scholarly electronic resources. By linking the most relevant research databases from among the hundreds available on the website, students utilize scholarly, discipline-specific, databases. These scholarly resources become visible to students and are used. In fact, greater usage drives library acquisitions and collection development as more eBooks and databases are selected over print in an effort to provide 24/7 access to users. Students prefer the convenience of instant access to online, credible information, especially if they commute to campus or are juggling work and family commitments.

### 5. Greater Efficiency, Versatility

With time, LMS embedded librarians develop the necessary technology skills to work within the LMS and build content needed for research assignments. Then they recycle the ready-made content from previous semesters or similar courses or share this content with other embedded librarians within the library system. This information literacy method works well, however the course is taught: online, hybrid, or face-to-face, since the LMS is ubiquitous. Then, too, librarians are able to market the many time-saving research tools to simplify the research process for students: project calculators, mind maps, citation generators, RSS alerts, presentation software, and tutorials.

### REFERENCES

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# APPENDIX 1 – SUMMARY OF EMBEDDED LIBRARIAN SURVEY RESULTS

From the middle of September to the middle of October 2011, we conducted a web-based survey on embedded librarianship in the learning management system (LMS) or virtual learning environment (VLE). The questions used in the survey are available at http://www.users.muohio.edu/burkejj/embedded librarianship in the lms survey.pdf. Respondents were solicited from 12 electronic discussion lists (listed at http://www.users.muohio.edu/burkejj/embedded librarianship in the lms survey lists.pdf).

280 librarians responded to the survey. 72% of the respondents are currently embedded with classes in their institutional LMS (8% had been embedded in the past and 6% plan to start an embedded librarian program in the future). 30% of the respondents started their programs three or more years ago (36% started between one and three years ago, and 15% started within the current year).

Embedded librarians are operating in a number of different LMS environments. 56% use Blackboard, followed by 16% in Moodle, 14% in ANGEL (now owned by Blackboard), and 10% in Desire2Learn. The most popular elements of library service that are embedded in the courses are:

- Links to library databases and other information resources (76%)
- Encouragement to contact the embedded librarian for further reference assistance (76%)
- An individual librarian is assigned to one or more participating courses (73%)
- A library tab or link to the library website appears in the LMS for all courses (72%)
- Tutorials, embedded or linked, in the course (69%)
- Information on research concepts (66%)

Respondents reported how many courses on average an individual librarian is embedded in per semester at their institutions. The majority (44%) were embedded in five or fewer courses, while 24% participated in between five and 15 courses. 70% of respondents are embedded in online or web-based courses, and nearly the same percentage (69%) are embedded in traditional, face-to-face courses.

Respondents offered many favorable comments on the service that they have received from faculty and students and also offered their own perspectives, including the following:
- "Our faculty and students love this service. When asked how he did research, one student said he decided on a topic and then talked with "His Larry" - the embedded librarian."
- "It changed my relationship with the students. I went from being just a librarian to being an instructor. I already had a good relationship with the prof, but this made it better--and we were able to work together in a different way."
- "in the one course I have done this, the students were very enthusiastic about being exposed to research methods. I was shocked! They said they wished that they had been forced to learn how to find maps, articles, and data much earlier in their academic careers."
- "We offer it in place of f2f library instruction so faculty need it to get library support - students often tell us they love having a librarian because it gives them a place and a person to get help with research."

They also identified several challenges that they face in growing embedded librarianship:
- "Librarians don't want to do it because they're already over-worked with too much newly-added responsibilities (chat, "outreach," etc.). Profs are resistant to having librarians meddle in their course pages. Students are ambivalent about the librarians' presence on their course pages."
- "resistance to the idea by director; lack of additional support for the service from other librarians/director; other librarians' attitude that 'this isn't what I was hired to do'"

- "Once librarians 'prove' themselves valuable, the floodgates start crumbling with a number of small requests that can (not always) turn into significant instructional collaboration - with students and their faculty."
- "Spreading the word among faculty and/or convincing them that this can help improve their students' work and research. Some faculty seem reluctent to work with librarians. Defining what research is, at times seems to be another problem. Finally, time -- there's an element of time commitment that can hinder such approach."

Despite these issues, 49% of the respondents believed that the numbers of courses they are embedded in would grow in the coming year, while 37% believed that the number would stay about the same.  None thought that their programs would cease.