

The Future of Embedded Librarianship: Best Practices and Opportunities

Presented by Cass Kvenild at California Conference on Library Instruction, 2012

When initiating a new embedded project at your institution, it is important to consider the background of embedded librarians, best practices from the field, new opportunities for embedded projects, and how you will assess the project.

Background

Barbara Dewey coined the phrase “embedded librarian” in 2004. In subsequent usage, a number of definitions have emerged. The definition from David Shumaker and Mary Tally fits most instances of embedded projects today. They define an embedded librarian as a librarian focused “on the needs of one or more specific groups, building relationships with these groups, developing a deep understanding of their work, and providing information services that are highly customized and targeted to their greatest needs”. (Shumaker & Tally 2009). The skills in this definition are highly valued in today’s libraries. In January of this year, ALA President-elect Maureen Sullivan noted that more and more librarians work in collaboration with others, outside of their own work units. Embedding is one way to work outside of traditional boundaries and to engage with students and patrons in an authentic way while gaining understanding of their day to day information needs.

Where and how are librarians embedding?

In higher education environments, librarians embed in different ways depending on the needs of their user groups. Some librarians embed in traditional classroom environments, supplementing class trips to the library with librarian visits to the classroom. Their engagement can be over two or more class sessions, even co-teaching the class in some cases. This model provides in-depth knowledge of student research projects during the research and revision process. It is a popular choice for first-year experience and freshman composition courses, in which students might not gain sufficient expertise in just one visit to the library. Potential drawbacks of this model are time-related, including time spent in class as well as shared responsibility for creating and or grading assignments.

One highly popular model of embedded librarianship is embedding in the institutional course management system (CMS). This usually takes the form of asynchronous visits from the librarian to course discussion boards along with embedded supplemental material (i.e. podcasts, slide shows, videos, worksheets) for research projects. Embedding in course management systems began in online courses and the growth of this model has accompanied the huge growth of online learning in higher education. More colleges and universities are requiring use of the course management system with their traditional face to face courses, and librarians are embedding in these courses as well. The benefits of the embedded approach are obvious for online courses, as the traditional one-shot library instruction session is not easily achieved in an asynchronous environment. Another benefit is that when a librarian answers questions and delivers tips in an online discussion board, all of the students in the class can benefit from the information at the point of need. Embedding in a course management system does require comfort with technology and with the pedagogical principles of online learning environments. Additionally, the librarian will need buy-in from gatekeepers to the CMS to gain access to courses. Participating in multi-week discussion threads can require a good deal of vigilance to monitor activity in the

forums, but the librarian can keep a tailored asynchronous schedule to participate in the class, requiring less time than face to face embedding in most cases.

Librarians working with upper division and graduate research groups, especially in Business and STEM programs, have succeeded at embedding within project teams. This often involves in-depth participation in short-term projects, aiding the team in their searches, literature review, grant preparation, data curation, or other specialized information aspects of the project. This level of embedment requires a heavy time commitment during the length of the project, as well as subject expertise and established trust with the research team.

Finally, some librarians are embedding in departments as a liaison. Their efforts go beyond bibliographer duties. Many of these embedded librarians are physically housed within the department, whether it is an academic program or a dormitory. They are usually closely affiliated with the department (maybe even more so than with the libraries) and might be paid out of departmental funds. These librarians learn the ways and needs of their patrons in their natural environment. They often work as finders of information, organizers of information, and taxonomy creators. Embedding within departments provides in-depth knowledge of the users of library services, along with potential isolation from other librarians. It involves a high degree of specialization, co-location and shared responsibility.

Implementing an embedded project: best practices

Building an embedded instruction program takes careful collaboration and thoughtful implementation. Don't be afraid to start small and take baby steps toward your goal. Working with known partners and with small pilot projects is a smart way to start a project. When working with partners, it is critical to set clear expectations from the beginning. What does the instructor think your role as a librarian will be in the course? How much involvement will you have with the assignments? With grading? Careful analysis of the syllabus along with detailed conversations with the instructor form an excellent pre-embedding strategy.

Establishing partnerships with other campus stakeholders will also benefit a new embedded project. Instructional technologists and instructional designers can be invaluable resources when learning to embed in a CMS. The center for teaching and learning at your institution can aid in developing long-term pedagogical strategies beyond the traditional one-shot library session, and they can also provide assessment ideas and support. As your embedded program grows, course and curriculum coordinators can help streamline your presence throughout a course of study or a departmental curriculum.

When developing the embedded project, it is a good idea to take a snapshot of your campus needs and goals. The academic mission and institutional priorities of your institution should guide your planning efforts. You may also implement formal needs assessments, surveys, and focus groups to learn more about what kind of embedded project will be most effective and best address the needs of students and faculty. Meeting with subject departments can expand existing partnerships into more formal embedded projects.

If you want to grow your embedded project, there are a few prime opportunities to do so with the most ease and impact. Any new programs in development at your institution are an opportunity to build the presence of a librarian throughout a degree program. This is especially true when academic programs develop a new online presence. Departments in the midst of major curriculum changes are also excellent partners for expanding an embedded project.

In many documented embedded projects in the library literature, pilot projects resulted in increased demand for embedded services. This can be intimidating to a limited staff of librarians with limited time and resources to spend on instruction. As an embedded project grows in scope, it is critical to keep detailed statistics of classes served, time spent, and resources utilized. Areas of high demand and positive experiences should be noted, as should any stumbling blocks. This data can help refine a program and justify continued efforts in building embedded services.

In some cases demand far outweighs the ability of the library to provide embedded services. In those cases, embedded projects should be prioritized according to the academic mission, goals of the library, and perceived need of librarian presence. For example, an embedded librarian might be better used in a class with a heavy research component and a general education information literacy requirement than in a survey course with minimal research work. Clear priorities can be communicated to departments and instructors as a method of placing embedded librarians directly in research-intensive courses, and providing supplemental instruction or hands-off instruction (videos, podcasts, slideshows, tutorials, subject guides) to lower priority classes.

When planning and prioritizing growth in an embedded project, librarians can reduce the time spent on embedding by re-using content and recycling learning objects. One method for doing so is by tracking common questions and answers and storing them in a knowledge base. The knowledge base can be a home-grown or a commercial product. Many existing products in use in libraries provide a knowledge base function (LibAnswers, for example). A knowledge base allows you to store and re-use the most common answers, focusing the bulk of your time on original and unique research queries within the course or project. Re-usable learning objects also save time when embedded. Any podcast, video, slideshow, subject guide, worksheet, handout, or assessment tool you create should be broad enough to be utilized over multiple semesters, and perhaps in multiple classes.

Ideally all of the content stored in your knowledge base as well as the learning objects you create will be available to everyone at your institution for maximum use and minimum effort duplicating existing content. Subject expertise at your institution can also be leveraged to save time and effort embedding. If subject bibliographers or other specialized librarians are unable to embed for instruction, they can share expertise with embedded librarians and help in the creation of knowledge bases and learning objects as well as subject guides.

New opportunities for embedding

As embedded projects mature and grow, new approaches to embedding emerge in the literature and practice.

The rise of online video and free screencasting tools are driving the creation of many more learning objects by librarians. Reference questions can be answered with step by step video instructions using screencasting tools on desktop computers, phones, and tablets. Storage grows less expensive and editing tools more intuitive, allowing librarians to continually create and share instructional videos and podcasts in their embedded environments.

Social networks appeal to course instructors as a way to create online learning communities where students already spend time, rather than in the course management system. Librarians have successfully embedded in environments like Twitter, Facebook, class wikis, and more. The trend of using social networks for group projects in higher education holds promise for embedded librarians.

Supplemental synchronous instruction and reference interaction in asynchronous learning environments is gaining traction, as well. Librarians are using tools like Adobe Connect to provide real time interaction with students as part of a larger embedded project for online courses. Other instructors and librarians have utilized tools like Google Voice to provide personal access via phone and text, setting office hours to govern their availability and cloaking their real telephone numbers.

The best practices of embedding remain true with these new opportunities and approaches. Expectations on time and availability are key to put in place before the embedded project begins. Virtual office hours in all environments are strongly recommended by seasoned practitioners.

Assessment

Assessment is essential for determining the success of your efforts and for planning future projects. As educators, librarians are committed to student learning. A major benefit of embedded projects is that you can measure student learning over time, which is much more informative than the snapshot of learning during a traditional library instruction one-shot session. Embedding allows you to collect longitudinal data on the success of your program. Student learning can be tracked over the course of a semester or term, or tracked over multiple sections/ sessions of a course. You can even follow the same students through a degree program over time if you are embedded throughout a curriculum.

Assessment should be built into the embedded project from the planning stages. Establishing student learning outcomes with the course instructor will guide the assessment planning process. In some cases, you might already be collecting some of this information and it is readily available for assessment purposes. As your project grows and your assessment efforts become formalized, it is important to partner closely with instructors and to involve the Institutional Review Board prior to any large scale assessment efforts or publication of data.

Numerous methods are utilized to assess embedded instruction. Some librarians track improvements in student research questions, search terms and search strategies over the course of the embedded project. This information can be difficult to obtain in face to face settings, but it is often required in online discussion boards and thus easily captured for

analysis. Using this information does not add to the workload of students or instructors. You need only create a simple rubric to analyze the data.

Embedded librarians often utilize citation analysis as an assessment tool to determine the quality of sources used in final projects. To perform a citation analysis, you must secure access to the final projects and commit a good amount of time toward the analysis, but the results can reveal how much students learned about finding and utilizing resources. Again, you are capturing and utilizing existing work produced by students with no extra burden to them or the instructor.

Pre- and post-tests are another common tool used by librarians during the course of an embedded project. These are quick tools to assess learning over time, and can be implemented both on-the-fly in informal ways or in a more formal, measured fashion. Reflection essays provide similar information, and are also easily deployed on-the-fly for a quick survey of student learning before moving on to another skill.

Course management systems provide valuable log data that can be used to assess your embedded program. By learning how many hits a learning object receives over the course of a project, you can measure its value to students. Log data can be used to test the most effective and highly used locations for librarian discussion threads within an online course.

Summing up

As you move forward with embedded projects at your institution, it is important to remember that the planning process is cyclical. Each phase of the project brings lessons and improvements and revisions to your approach. As your project grows, you can revisit goals and carefully analyze assessment measures to continually improve. A successful project might be as simple as embedding in a single on-campus class to learn more about a user group, or as large as partnering with a whole college as they revise the curriculum for a new online degree program. The growth of online learning and the ease of creating learning objects make this a great time to experiment with embedded librarianship at your institution.

References

Angelo, T. & Cross, K. P. (1993). *Classroom Assessment Techniques: A handbook for college teachers*. San Francisco, CA: Jossey-Bass.

Bowler, M. & Street, K. (2008). Investigating the Efficacy of Embedment: experiments in information literacy integration. *Reference Services Review*, 36(4), 438-449.

Carlson, J. & Kneale, R. Embedded Librarianship in the Research Context: Navigating new waters. *College & Research Libraries News* 72(3), 167-170.

Peters, T. & Rundels, J. (Eds.). (2012). *Proceedings of the Fifteenth Distance Library Services Conference*. Mt. Pleasant, MI: Central Michigan University.

Clark, S. & Chinburg, S. (2010). Research Performance in Undergraduates Receiving Face to Face versus Online Library Instruction: A citation analysis. *Journal of Library Administration*, 50(5-6), 530-542.

Daly, E. (2010). Embedding Library Resources into Learning Management Systems: A way to reach Duke undergrads at their points of need. *College & Research Libraries News*, 71(4), 208-12.

Deitering, A. & Jameson, S. (2008). Step by Step through the Scholarly Conversation: A collaborative library/writing faculty project to embed information literacy and promote critical thinking in first year composition at Oregon State University. *College & Undergraduate Libraries*, 15(1), 57-79.

Dewey, B. I. (2005). The Embedded Librarian -- Strategic campus collaborations. *Resource Sharing & Information Networks*, 17(1), 5-17.

Hamilton, Buffy. (2012). *Embedded Librarians: Tools and practices*. Chicago: American Library Association.

Haycock, L. & Howe, A. (2011). Collaborating with Library Course Pages and Facebook: Exploring new opportunities. *Collaborative Librarianship*, 3(3), 157-162.

Kumar, S., Edwards, M., & Ochoa, M. Analysis of Online Students' Use of Embedded Library Instruction in a Graduate Educational Technology Course. In J. Sanchez & K. Zhang (Eds.), *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2010* (pp. 664-671). Chesapeake, VA: AACE

Kvenild, C. & Calkins, K. (2011). *Embedded Librarians: Moving beyond one-shot instruction*. Chicago: ACRL.

Matthew, V. & Schroeder, A. (2006). The Embedded Librarian Program: Faculty and librarians partner to provide personalized library assistance in online courses. *Educause Quarterly*, 29(4).

Shumaker, D. (2009). Who Let the Librarians Out? Embedded librarianship and the library manager. *Reference & User Services Quarterly*, 48(3), 239-242,257.

Sullivan, M. (2012). Librarians Making the Difference: New roles and opportunities. Presented at Catholic University of America- School of Library & Information Science Symposium.

York, A. C. & Vance, J. M. (2009). Taking Library Instruction into the Online Classroom: Best practices for embedded librarians. *Journal of Library Administration*, 49(1), 197-209.