Best Practices for Librarians Embedded in Online Courses

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Abstract

Academic librarians interested in collaborating with faculty in online courses often express questions about their role, level of involvement, and activities. This article provides a list of best practices to guide those developing embedded librarian services. The practices are drawn from a review of the literature, a case study of one embedded librarian's experiences, and a mixed methods study of embedded librarianship at six institutions. The resulting best practices will help embedded librarians collaborate effectively with faculty to create a positive learning experience for distance students.

Best Practices for Librarians Embedded in Online Courses

Introduction

Academic librarians interested in collaborating with faculty in online courses often express questions about their role, level of involvement, and potential activities as an embedded librarian embedded. Currently there is no cohesive guide to developing an embedded librarian service for online courses; a few articles provide insights from specific librarians' experiences, but they do not draw from the scholarship as a whole or from broad research.

While discussing their mutual research interest in library support for distance education, the authors realized there was a need for best practices to guide those developing embedded librarian services. The dearth of literature on the topic convinced the authors to combine their research to inform a list of best practices. These best practices are intended as a guide and also as a stimulus for ongoing conversation about embedded librarianship, so that these practices continue to evolve.

This article begins with a review of the existing literature on the topic. Building upon that foundation is Ramin's case study of her experiences as an embedded librarian, followed by a summary of Hoffman's mixed methods study of embedded librarianship at six institutions. The authors use these three sources to compose best practices for embedded librarianship. The resulting practices will help embedded librarians collaborate effectively with faculty to provide robust online services and create a positive, dynamic learning experience for distance students.

Literature Review

Because embedded librarianship is an emerging practice, publications are just beginning to provide a glimpse into individual experiences. The following review of the literature is limited to the most current, insightful contributions to the scholarship, upon which the authors

drew to develop best practices. The articles mentioned focus upon several themes, including: equivalent access, institutional relevancy, faculty interest, and the broad variance among the purposes, activities, and roles in embedded experiences.

Equivalent Access

The Association of College and Research Libraries' guidelines for the provision of library services to distance learners state that these services "must be equivalent to those provided for students and faculty in traditional campus settings" (ACRL, 2008). Academic librarians often find that this requires more planning, involvement, and financial commitment than access for on-campus students, which ACRL acknowledges as "distinct and different challenges" (2008).

Institutional Relevancy

John Shank and Nancy Dewald noted that librarians must become involved in online education at the course level or they would "risk being bypassed by [CMS] technology and losing relevance to students and faculty" (2003). In 2006, Karen Ramsay and Jim Kinnie echoed this concern, that libraries must "reinvent themselves" and "reach outward to become an integral part" of faculty and student life. Embedded librarians keep the library visible in the online campus, but the focus should be on how faculty and students can benefit from a librarian's presence and whether the faculty desire such a service.

Faculty Interest

To that end, Beth Thomsett-Scott and Frances May surveyed online teaching faculty about their opinions of the library's role in online courses (2009). 93% of the participants indicated that the library should provide instruction on using databases. When specifically asked about their interest in an embedded librarian service, 50% of the participants indicated high

interest, and another 25% indicated some interest.

Purposes

Jim Kinnie stated that many embedded librarian services are designed to help students develop critical thinking and research skill (2006). Robin Veal and Erika Bennett said the embedded librarian's relationship with online students increases student awareness of library resources and services (2009). Kinnie, Veal, and Bennett all agree that online librarian presence increases student comfort with the library. Veronica Stewart described two purposes for her embedded librarian service: to provide quality resources for online students, and to provide increased library instruction (2007).

Activities

Stewart mentioned that while embedded in a course, she posted tip sheets, linked to interactive tutorials, and posted to discussion boards (2007). The majority of the questions she answered were reference, followed by technical questions (such as course software problems) and help with citations. Stewart said students interacted with her more frequently when there was a library-specific discussion board available because it was a specific place they could ask questions and find resources.

Victoria Matthew and Ann Schroeder agreed that a library-specific discussion board is a good place to post general information on library resources, because this provides students a single location to find help and streamlines the librarian's interaction with the course (2006). Matthew and Schroeder add that while answering an individual question by email only helps a single student, posting the answer to a discussion board helps the entire class (who may have similar questions). Elizabeth Figa, Tonda Bone, and Erin O'Toole's research study showed that the discussion board was the students' favorite way to receive information; 93% of the students

indicated they read the librarian's discussion posts (2008). Jim Kinnie found proactively posting

information to be extremely helpful (2006). Information that is provided at the point of the

students' need is more likely to be noticed and may encourage students to ask further questions.

Many embedded librarians provide library instruction by using web-conferencing tools.

Thomas Peter provides a great introduction to web conferencing, how to utilize it best, and

includes important concepts to consider before and during presentations (2009).

Different Models

Drumm and Havens reported that individual embedded librarians spent much time

replicating messages in different online classes (2005). To consolidate their efforts, the

librarians created a library blog linked on the homepage of each class, thereby reaching all online

students with a single post. Library-wide updates were posted on the blog, and librarians posted

only course-specific information (such as answers to student questions) in each course.

Stewart supplemented her embedded librarian service by designing a CMS "course shell"

for library resources (2007). The "course shell" is set up as a separate online class in the CMS,

but contains library resources instead of course content. Students can thus access databases and

other resources inside the course software, rather than navigating externally to the library

website. Matthew and Schroeder mentioned an enhancement to this concept: providing

discussion boards divided by curricular area (2006). This separates student questions by subject

and provides a university-wide community for online students to meet others in their program or

curricular area.

Role of the Librarian

Defining the role of a librarian embedded in an online course is often challenging.

Matthew and Schroeder stressed negotiating the details of the librarian's involvement in a course

before the semester begins (2006). Veal and Bennett said even at a single institution, embedded librarian roles vary from course to course (2009). Amy York suggested discussing the presence or absence of a specific research assignment in the course, indicating that the embedded librarian role is particularly nebulous in courses that lack such assignments (2009). Jeremy Donald provides seven steps for collaborating online with faculty, beginning with "Communication and Trust-Building" (2009). This is crucial to avoid the librarian being relegated to a teaching assistant role, only asked about syllabus information instead of significantly contributing to the course. Communicating with the instructor about their goals for the collaboration is key.

Methodology

Case Study: UNT Embedded Librarian Project

During the fall 2009 semester, Lilly Ramin collaborated with another faculty member on the graduate-level library-science course *SLIS 5600: Introduction to Information Access and Retrieval*. In addition to that specific semester-long collaboration, Ramin has been embedded in a number of other courses for one-shot sessions and guest lectures (see Appendix A for a glossary defining these terms and others). For the SLIS 5600 course, Ramin used Survey Monkey to produce a post-project survey that she linked from a discussion post in the online course. The survey asked about student views regarding the presence of the embedded librarian, as well as the use of web-conferencing software for instruction sessions.

Ramin was granted instructor-level CMS access to the course, giving her the freedom to access all areas of and tools for the course. (Although this level of access is preferable, gaining it for embedded librarian projects may be difficult, especially when the institution does not have an established protocol for embedded librarian services.) Ramin provided several live web-conference sessions about library resources, including some scheduled on evenings and

weekends when graduate students were more easily able to participate. During the sessions, Ramin provided help with an assignment she designed which required students to use a wiki to create an electronic portfolio.

Benchmarking Research Study: Six Embedded Librarians

Starr Hoffman performed a mixed-methods benchmarking study in the spring of 2009 to determine the activities and experiences of academic librarians that served online courses in various capacities. Her review of the existing literature revealed many gaps due to the recent development of the topic. This prompted Hoffman to design a study of commonalities and differences in embedded librarian activities as well as the librarians' positive and negative experiences. Hoffman identified six institutions for this study by word-of-mouth and by posting an open invitation on ILI-L, a list-serv devoted to library instruction. The final six participant institutions vary by geographic location, Carnegie classification, and size, and include public, private, and for-profit institutions. Hoffman documented the librarians' online activities and time management strategies by content analysis of the library websites and forms, holding email discussions and phone interviews, and tabulating responses to an online survey.

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Results

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Case Study

Although Ramin was prepared for reference questions about research and the course's final project during the chat sessions, the students required far more basic library instruction than she anticipated. Ramin's survey results showed an appreciation for her presence in the course, even though some of the students did not attend the instruction sessions live. Because her presentation was archived, all students were able to access the session material asynchronously.

In previous briefer embedded experiences, Ramin utilized a variety of online activities and communication methods, showing that even a single guest lecture can be enhanced by creative use of technology (see Appendix B for some helpful tools). One of Ramin's web-conference guest lectures was captured as both video and audio, and a lip reader was later asked to transcribe this into a text script for a hearing impaired student in the course. In sum, this lecture was held live as an interactive online text/voice chat and PowerPoint presentation, was later available asynchronously as an archived mp4 video and mp3 audio file, and was also provided as transcribed text. The variety of these tools was useful as this course included students in various locations across the United States—because of geography and time zones, students could not always access a person promptly. However, even when students were unable to download a lecture in one format, enough alternatives were provided that they could obtain the information.

In another instance, Ramin held a one-hour text-based chat sessions and answered questions in library-specific discussion boards for one day. The text-based chat was poorly attended and the librarian received only one student post during the hour. However, this single post included eight in-depth questions, showing that even minimal student involvement can require a librarian's assistance. Ramin posted her response, and all students in the course were able to benefit.

Benchmarking Research Study

Quantitative Findings. Only relevant findings are reported, as the complete quantitative findings are too lengthy for this development of best practices. The majority of the librarians in the study answered student questions using a variety of technologies and communication methods, both inside and outside the CMS. While a few participants used general discussion

boards, two-thirds of them used a discussion board designated for library-related discussions.

Course levels, subject areas, and types of questions varied widely among the study participants.

Qualitative Findings. Many of the participants articulated difficulty defining their role

as embedded librarians. Each instructor and librarian came to their collaborative relationship

with different assumptions, which were often not revealed until the course was underway.

Despite role uncertainty, the majority of the participants effectively used time-management

strategies to prevent being overwhelmed by the addition of the embedded librarian role to their

usual duties. This was true even in one unusual case in which a librarian was responsible for

more than thirty sections during a single semester.

Instructor and student responses (both anecdotal and formally assessed) to the librarian's

presence in the course were positive, even from those individuals who did not directly consult

the librarian. As instructors and students became familiar with a specific librarian, they formed a

personal connection with the library and were more likely to take advantage of library services.

One participant related that students in her rural area had grown up without a public library and

were intimidated by libraries; by interacting with their embedded librarian, they lost their fear

and realized the value of library resources. Although higher education is generally assessed by

quantitative academic outcomes such as improvement in grades, this study shows that the most

significant outcome is non-academic: personal interaction with a librarian builds a stronger

relationship between online students or instructors and the library, perhaps even with the

institution itself. A librarian's presence in an online course is more than an academic solution: it

is a powerful outreach tool.

Best Practices

This list of best practices was informed by the review of the literature, by Ramin's case study, and by Hoffman's research study. Ramin and Hoffman assessed these for both positive and negative experiences and distilled these into key concepts for successful embedded librarianship. Because the length and purpose of embedded librarian experiences vary widely, these best practices are not intended as an ordered checklist and do not mention specific software applications. To see the list of best practices without the accompanying explanatory text, see Table 1.

Involve Other Librarians from the Beginning

After collaborating with a librarian, instructors often become personally attached and tend to recommend that specific librarian to other instructors. If your embedded services are popular and you are the only librarian involved, you can quickly become overwhelmed. Involving at least one other librarian from the start partitions the workload and helps instructors become familiar with more than one librarian.

Get Buy-In from Library Administration

As just mentioned, embedded services often begin as a single librarian's experiment. However, if the service is popular and demand increases, those responsibilities may need to be assigned to additional librarians or staff. It's important that the library administration is aware of this potential and its staffing implications.

Market the Service to Online Instructors

Once you have library administration approval and have identified potential partners, it's important to let online instructors know about the service. Compose a concise email explaining the service and send it personally, if permissible. If your library has subject-specialists or liaisons

that interact with specific academic departments, ask them to forward the message with a personalized preface, such as, "Let me tell you about a new service the library offers."

Clearly Negotiate Librarian's Role with the Instructor

Confusion about the embedded librarian's role in an online course is common. Communicate with the instructor before your involvement in the course begins; ask what types of is desired, and for what time period. If the instructor is uncertain, outline your usual role, activities, and length of involvement as a guideline.

Get Information about the Class Ahead of Time

Ask the instructor for as many class assignment details as possible. It's a good idea to log into the course before it begins, if you have the CMS permissions to do so, to check the course syllabus for specific assignments. Before preparing for a library instruction session, browse the discussion board postings to see representative student questions and problems.

Be Prepared to Go Outside your Subject Specialty

As in many reference services, you may be asked questions about subjects beyond your expertise. This is particularly true if you are the sole embedded librarian, or if the course is lower-level or core curriculum. Referral is always an option for questions outside your scope; one benefit is that referral can connect students with their specific subject specialist. When referring a question, provide the recipient with information about the course and assignment.

Follow-Up with the Instructor

Instructor and students feedback is beneficial for assessment, but unless you specifically administer a survey, their comments may be misdirected to other librarians or never heard. Therefore, it is important to directly communicate with the instructor about the outcomes and to ask librarian colleagues to forward any comments about that course to you.

Plot Course Assignment Deadlines and Plan Ahead for Busy Periods

Use a print or electronic calendar to chart class assignments and other deadlines for the

current semester. This helps you to anticipate busy times when students are likely to ask more

questions, as well as to plan ahead when several deadlines occur simultaneously.

Monitor Discussion Board Using Email Notification or RSS

Some CMSs offer RSS or email notification for discussion board posts. This feature can

save time by prompting you to log into a course when updates and responses are needed.

Check Courses at Set Times Throughout the Day/Week

In Hoffman's study, several librarians scheduled specific days and times each week to log

into the CMS and respond to emails and discussion board posts. This reduced potential anxiety

from an excessive workload, and allotted sufficient time to complete other job duties.

Save Email Messages and Discussion Board Posts for Future Use

Saving information from past classes can save time when the same questions recur the

next semester. Store new questions and answers in a master "cheat sheet" as they appear in

subsequent courses. This document is also an excellent assessment tool.

Create a Library Module Open to Every Online Student

A library module or CMS "shell course" can save time by acting as a one-stop link to

library resources. The module directs students and instructors to library resources, allowing

them access within the CMS. It could optionally be made available to all students, even those not

enrolled in an online course. However, a library module is no substitute for personal interaction

with an embedded librarian.

Post Embedded Librarian's (and Subject-Specialist's) Contact Information in the Course

Include your contact information in various places in the CMS (course homepage, discussion boards, syllabus) to encourage students to ask questions. Include your work phone number and email address to enable students to reach you outside of the course, even in later semesters. If you have an established reference schedule, you can also post this informal "office hours" so that students know specific times you are available.

Post in a Single Library-Specific (or Assignment-Specific) Discussion Board

Posting in a single discussion board enables the students (and the librarian) to find all library-related information in a single location. Re-post and answer questions (without student names) that you receive by email or in other classes so that all students may benefit from this information. When you have an opportunity to speak directly to the students, encourage discussion board questions and let them know what an important contribution their questions are to the entire class's learning experience.

Post Information Proactively

By keeping track of assignment deadlines, you can post tutorials and tips just when the students need them, also known as "point-of-need." Students are more likely to read posts about relevant resources one to two weeks before an assignment is due, rather than during the first few weeks of class. By waiting to post this information, you also avoid overwhelming students at the beginning of the course.

Include Visuals in Discussion Board Posts

Consider uploading screenshots to discussion board posts to enhance instructions. Explaining a database search is not as robust as outlining steps and illustrating them with screenshots. Capture screenshots using software such as SnagIt or Jing, or use the "print screen" keyboard button and click "paste" in a free graphic editor such as MS Paint (PC) or Seashore

(Mac). If you have a video tutorial, provide a link or embed in it a post. Remember the golden

rule of instruction: provide information in multiple ways for different learners.

Test Software and Run System Check Ahead of Time

Test your web conference software ahead of time, preferably at the same location and

computer that you will be using on the day of the presentation (for a list of web-conferencing

tools, see Appendix B). This test-drive ensures that you have all required software updates and

the right hardware (headphone, microphone, web camera, speaker phone, etc.), and allows you to

anticipate problems. Failing to turn off pop-up blockers ahead of time can mean wasting time

limited presentation to do it on-the-spot.

Post Trouble-Shooting Tips

It's helpful to post trouble-shooting tips for both students and instructors when working

with web conferencing software. Technical issues often result in a the lecture that cannot be

heard, cannot be seen, or both. Posting these tips in the library-specific discussion board

beforehand may mean less time spent trouble-shooting during the presentation.

Be Prepared with a "Plan B:" Have Alternatives in Place

If you're using wireless internet access during an online presentation, try to have a wired

backup and/or second computer available. Before the presentation begins upload a slideshow

(MS PowerPoint or a similar presentation application) with screenshots of the resources as an

alternative to desktop sharing or pushing links to the audience. If live instruction is interrupted

by problems with desktop sharing or link-pushing, a pre-loaded slideshow ensures that little time

is wasted, minimizes any technical issues, and provides stable visuals for the audience.

Discussion & Areas for Future Research

The literature, case study, and research study illustrate vividly the contrasting, and often

unexpected, roles an embedded librarian may perform. Librarians' roles in courses can be

divided by length of involvement (one-shot versus semester-long) or by purpose (library

instruction, answering reference queries, discussion board maintenance). The positive response

to librarian presence in the examples previously mentioned, regardless of whether or not the

individual directly consulted the librarian, makes a strong case for the collaboration between

faculty and librarians for embedded librarian projects. Such collaboration can be informed by the

best practices presented here.

   Research is needed to determine more specifically if student and/or instructor attitudes

toward academic libraries are transformed interacting with an embedded librarian. A particularly

useful study would determine benefits that distance learners receive by forming a relationship

with a librarian. Sharing embedded librarian successes could provide justification for funding

expanded services. There are roles, activities, and purposes for embedded librarianship that are

beyond the scope of this article and yet to be explored, just as continuing discussion of

successful embedded experiences will further develop these best practices.

Table 1

Best Practices for Librarians Embedded in Online Courses

Category	Practice
Preparing & Developing the Service	Involve other librarians from the beginning
	Get buy-in from library administration
	Market the service to online instructors
	Clearly negotiate librarian's role with the instructor
	Get information about the class ahead of time
	Follow-up with the instructor
	Be prepared to go outside your subject specialty
Managing Your Time	Plot course assignment deadlines & plan ahead for busy periods
	Monitor discussion board using email notification or RSS
	Check courses at set times throughout the day/week
	Save email messages & discussion board posts for future use
Using the Course Management Software	Create a library module open to every online student
	Post librarian's contact information in the course
	Post in a single library-specific discussion board
	Post information proactively
	Include visuals in discussion board posts
Avoiding Technical Problems	Test software & run system check ahead of time
	Post Trouble-Shooting Tips
	Be prepared with a "Plan B" & have alternatives in place

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Appendix A

Glossary

There are a wide variety of terms used for similar concepts in the world of distance

learning (which itself is used interchangeably with distributed learning, e-learning, online

learning, and remote learning). Here we have defined the following terminology as it is used in

this article.

A *course management system (CMS),* sometimes referred to as a learning management

system (LMS), is a software application designed for delivering online courses (examples

include Blackboard and Desire2Learn).

Web conferencing is real-time communication software that enables presentations,

training, and instruction to be delivered and archived using various tools, such as video, audio,

text-based chat, and document-, desktop- and link-sharing. Availability of specific features and

tools differs based on the software product chosen.

Desktop sharing enables students to collaborate with the librarian by giving them remote

access to the applications on the librarian's computer (Peters, 2009, 70). Desktop sharing is a

common alternative to "pushing" URL links or using uploaded presentation slides during a web

conference.

A *one-shot session* entails a virtual visit from a librarian as a guest in an online course

for no more than a single day. For example, a librarian might visit CMS discussion boards,

communicate using text-based chat, or provide a live instructional session using web-

conferencing software.

In addition to the one-shot model, embedded librarians can be *guest lecturers*, presenting

a specific topic and having no other participation with the class.

We use the term ***embedded librarian*** to refer to a semester-long or short-term project that requires the librarian to be involved in a course for a longer period.

Blended or ***hybrid courses*** include both a virtual and an in-person component. Librarians assisting these types of courses may provide assistance online or in-person for traditional face-to-face instruction, or a combination of both methods.

Appendix B

Tools & Resources

Web-Conferencing Tools

If the library has not purchased a web conferencing tool, you should review and compare various applications such as Wimba, Eliminate, Microsoft Live Meeting, Adobe Air and others. Thomas Peters's book, listed in the references, is a good guide to using these programs.

- Reviews of web-conferencing software, although many are pricey and business-oriented: http://www.webconferencing-test.com/en/webconference_home.html

- Wikipedia also lists some web-conferencing software comparisons:

  o http://en.wikipedia.org/wiki/List_of_free_and_open_source_software_packages# Education

  o http://en.wikipedia.org/wiki/Comparison_of_web_conferencing_software

Graphic Editors

- *Seashore*: free, open-source graphic editing application for Mac computers. http://seashore.sourceforge.net/

- *GIMP*: free, open-source graphic editing application available for PC (run in Windows or Linux) and for Mac. http://www.gimp.org/

Other Tools

- *Best Free Stuff for eLearning*: lists a number of free tools and resources useful for librarians, instructors, and online students. http://comp.uark.edu/~estover/best_free_stuff/index.htm

- *File Hippo*: free application that checks all your software for the latest updates: http://www.filehippo.com/updatechecker/