Chapter 5

Embedded Librarianship in a High School Library

Cultivating Student Participatory Literacy and Personal Learning Environments

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Abstract

This case study chronicles the learning experiences of three cohorts of tenth-grade students taking an honors literature/composition course (also known as Media 21) cotaught by high school librarian Buffy Hamilton and English teacher Susan Lester between August 2009 and the present. This class, which takes an inquiry stance on information, digital, and participatory literacy, has provided students a learning environment in which Hamilton is intensely involved in the instructional design, teaching, and assessment of student learning for approximately 75 percent of the academic year. Hamilton shares how she utilized teaching technologies to teach key processes and skills to cultivate network and information attention and to provide students feedback and assistance through virtual cloud computing applications.

Introduction

Librarians function as sponsors of literacy1 by promoting traditional forms of information literacy—as well as new literacies—to encourage many voices of discourse and representations of information. To embed information literacy as an essential standard in every subject area, librarians must collaborate with subject-area teachers to foster an inquiry-based approach that dovetails perfectly with the use of social networks and new media as part of students' personal learning networks and the syntheses of information gleaned from a diverse range of these information sources. By responding to the changes that are occurring in today's information culture, librarians can facilitate learning experiences that situate information literacy as a fundamental literacy shaped by today's society, culture, and ever-evolving technologies and provide students with a sense of agency by teaching them strategies and tools for harnessing a dizzying array of information streams.

Participatory librarianship positions librarians as agents of change in their learning communities. Rooted in conversation theory, participatory librarianship suggests that if people must engage in some form of conversation to acquire knowledge and if librarians are in the knowledge business, then librarians should be in the conversation business. All efforts to engage patrons and plan library programming should go back to the essential question "How does this decision impact and create a conversation for learning?"[2] Librarians seek to create such conversations providing an information-rich environment with multiple points of access to the information.[3]

Consequently, librarians should consider how to facilitate these conversations about information literacy with learners through the use of social media and cloud computing. Helping students create their

own **personal learning environments** and information dashboards allows them to engage in these conversations for learning with themselves as well as with peers within and outside the classroom. Such learning tools are critical in teaching students how to navigate today's information landscape and to initiate and sustain their own conversations for learning.

What is a personal learning environment (PLE)? PLEs are "systems that help learners take control of and manage their own learning. This includes providing support for learners to set their own learning goals, manage their learning; managing both content and process, and communicate with others in the process of learning."[4]

In today's mashup world of information, a plethora of resources are available via the Internet, including podcasts, blogs, social bookmarks, social networks, videos and video streaming, wikis, and RSS feeds through a favorite feed aggregator. The premise behind participatory tools used to build these information dashboards and personal learning environments is to model ethical and informed information-seeking behavior for our students. Students learn how to connect with other learners and entities to build knowledge and solve information-search problems.[5] Information literacy instruction must include helping students learn to pick and evaluate the best resources for their personal learning environments from print, subscriptions, and emerging forms of authoritative information via social media streams.

Collaborative Seeds

Creekview High School librarian Buffy Hamilton and English teacher Susan Lester, have collaborated together as coteachers of tenth-grade honors world literature/composition for nearly three years to create a learning environment in which Hamilton was embedded as an instructor. These sections of sophomore English courses, also known as Media 21, are rooted in connectivism, inquiry, and participatory literacy and emphasize students creating their own research dashboards and portals. The course also teaches students to craft personal learning environments to help them develop nodes in their network of resources for learning and to evaluate a diverse offering of information sources more critically.

The collaborative process began in March 2009. Hamilton approached Lester with an idea for a collaborative project grounded in connectivism and participatory librarianship. For her Media 21 Capstone project,[6] Hamilton wanted to create a nine-to-twelve-week-long learning experience that would help students learn how to use social media and cloud computing for learning and as a means of cultivating a personal learning network. In addition, Hamilton wanted students to engage in learning through collective knowledge building and inquiry. After Hamilton shared with Lester the resources and research she had collected to support this vision of learning, Lester agreed to take a leap of faith and join Hamilton on this journey of teaching and learning. Together, the two outlined content-based and information literacy performance standards they wanted students to master; they also collaborated to draft a list of learning activities and tools they wanted to implement, as well as a master list of materials.

Google Sites and Wordpress

Over the last three years, Hamilton has utilized a variety of virtual tools for supporting student learning. Hamilton has used Google Sites and Wordpress as media for providing students access to course materials and a daily learning agenda. These course websites reflect the instructional planning and course content creation between Hamilton and Lester as they codesign and share the responsibility of creating instructional handouts, assessment rubrics, and the daily calendar of learning activities and resources, but Hamilton is responsible for organizing and posting the content. During the 2009–10 and 2010–11 academic years, Hamilton utilized Google Sites since students were learning how to use that tool for creating their learning portfolios, but she primarily used it as a medium for hosting course content since students could subscribe to daily updates via RSS. In the fall of the 2011–12 year, she decided to use Wordpress.com (see figure 10) as the host of the course agenda and daily class materials since it provided options for both RSS and e-mail updates to students. In addition, Wordpress is the host of the course blog and the platform for student blogging, so it provided a familiar interface for students. In addition, Hamilton used research guides she created in LibGuides as a medium for igniting conversations about information literacy skills and digital literacy skills with students.

Media 21 LibGuides
www.theunquietlibrary.libguides.com/media21

Wordpress has also been the platform for student blogging and a space for students to reflect on their research and learning processes. Not only has blogging provided students an opportunity for metacognition, but it has provided a virtual means for Hamilton to provide formative assessment and suggestions for students to help them deal with their research challenges in a personal and individualized manner. While she originally used Netvibes to follow student blog entries via RSS feed, she eventually used Google Reader to

Figure 10
Media 21 class learning agenda on Wordpress

Figure 11
Media 21 Symbaloo account

access and interact with student blog posts because it provided her a faster and more accessible way of dealing with up to 65 individual student blogs.

Symbaloo

Symbaloo is another medium for instructional support that Hamilton has maintained with students (see figure 11). Through Symbaloo, librarians can create webmixes—tabs or pages with tiles containing web links to any information source or RSS feed. Because these webmixes can be published and shared with other Symbaloo users, Hamilton decided to utilize Symbaloo as an information dashboard that would provide students with a jumping off point each day in class to easily access all course resources in one place. This dashboard was easy to navigate and could exist with student-created mixes in their own Symbaloo accounts. Not only did the use of Symbaloo allow Hamilton to broadcast resource updates directly to students' individual Symbaloo accounts, but it also served as a model of an information dashboard for students as they worked to craft their own research guides on topics they were researching in a unit on the issues and challenges facing veterans who served in Afghanistan and Iraq. Resources in the course webmix created by Hamilton have included

- links to research databases provided by the library as well as by GALILEO, Georgia's state virtual library
- recommended search engines like SweetSearch and NewsTrust
- course virtual spaces for learning, including the class wiki, class blog, LibGuide pages for units of research, the course daily agenda, and links to student learning portfolios
- sources for copyright-friendly images
- virtual tools for student learning, including Evernote, Scoop.it, and Google Docs
- the library OPAC
- NoodleTools for citation and electronic notetaking
- tutorial videos
- course surveys conducted through SurveyMonkey and Google Forms

Wikis

Hamilton has also utilized wikis for interacting with students and providing support for student learning. Initially, she used Wetpaint as a space for students to share and discuss articles and to provide commentary on student discussion threads, but after one semester, she and Lester decided to use the blog for discussions and to harness the use of wikis for students building and sharing content. As the facilitator of the class wiki, Hamilton assisted students in learning how to use Wikispaces to create project pages and embed original content they were creating to represent key insights and learning artifacts of their research process. These class wikis have included

- multigenre research projects that included a combination of traditional texts that students wrote collaboratively in Google Docs and alternate genres of "writing" such as videos, artwork, two-voice poems, character and event recipes, music playlists, word clouds, and skits
- the discussion feature available for each page in the wiki utilized by students to provide constructive peer review and feedback

Figure 12
Netvibes Media 21 course portal

- incorporation of digital texts that have combined embedded multimedia juxtaposed traditional research writing
- learning portfolios that have included embedded research design proposals, digital texts in Prezi or VoiceThread format, embedded Works Cited pages, embedded badges for Scoop.it research magazines, and RSS feeds for published Evernote research notebooks and their embedded "presentation Zen" style slidedecks

Netvibes

Hamilton has also utilized Netvibes as a way of providing students a course hub where they could easily follow the RSS feeds of course content (the class daily agenda, course bookmark feeds, and RSS feeds of each student learning blog, as well as the course blog) and access and interact with these media. In addition, Netvibes has provided students with a way to digitally showcase their information sources, tools for learning and research, and learning artifacts; in other words, Netvibes has served as a hub for students to create a digital narrative of all aspects of their research and learning processes (see figure 12). The purpose of incorporating Netvibes as a learning tool was to give students a means of creating an information dashboard for organizing all of their information sources (RSS feeds from informational or peer blogs, online news sources, saved database searches, widgets for databases, books or other print materials from Google Books, informational videos, and RSS feeds for posts and comments from their individual learning blogs). This decision was inspired by Howard Rheingold's concept of **infotention** and his assertion that "Knowing how to put together intelligence dashboards, news radars, and information filters from online tools like persistent search and RSS is the external technical component of information literacy. Knowing what to pay attention to is a cognitive skill that steers and focuses the technical knowledge of how to find information worth your attention."[7]

Many students liked Netvibe's extensive gallery of widgets they could use in addition to the diverse range of themes for a custom look and feel; several students also commented that they found it easy to add content and embed more types of Web code to showcase their learning tools and artifacts. Students also enjoyed using the news widgets available in Netvibes for discovering news articles on their research topic. While students were provided with a list of required elements for their Netvibes information portals/learning dashboards, they also had flexibility and creative license in choosing additional content to incorporate and paint a digital story of their research

process. By creating these information dashboards, students could easily access their information sources and were cultivating their own information fluency by constructing individualized research guides for their topics. Netvibes also made it easy for both Hamilton and the students to follow each student's blog and to regularly comment and interact with each other through commenting on their learning blogs hosted in Wordpress.

NoodleBib

Hamilton wanted to embed herself in virtual student learning spaces not just to provide resources and virtual help, but also to utilize these spaces as a way of providing formative assessment to both the students and Lester, her coteacher. One way Hamilton engaged in meaningful formative assessment was through the NoodleBib shared assignment dropbox feature that is part of the NoodleTools suite, a comprehensive citation management package subscription provided by Hamilton's district to every school. NoodleBib's dropbox features allow Hamilton to virtually evaluate bibliographies in progress and electronic notecards (see figure 13). The assignment dropbox has allowed Hamilton to be successful in engaging in formative assessment and has enabled her

- to gain insights into the selection of information sources by students and to help students identify sources they may have overlooked that could inform their research
- to help students identify and understand the mistakes they've made in the citation process and work with them to correct the entries
- to see what students are doing really well with their notetaking skills and provide positive feedback while identifying areas of weakness and then engaging in a conversation for learning with the student by sharing strategies for tackling those "challenge" areas

Hamilton's roles in facilitating these formative assessments included

- setting up the shared assignment dropboxes
- teaching students how to share an assignment and confirming she had received the assignments from each group
- taking the time to evaluate each group's bibliographic entries and notecards while providing feedback
- keeping a spreadsheet of general notes for each group's work and noting patterns in what students were doing well and common problems she saw in student work

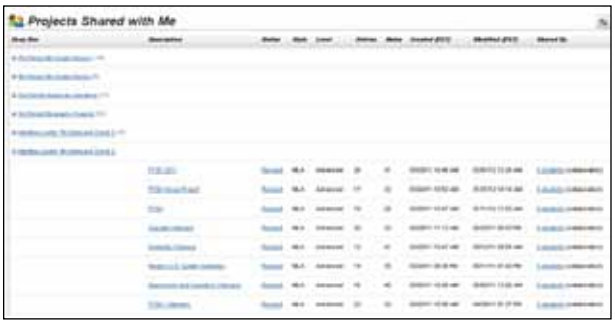

Figure 13
NoodleTools dropbox

- sharing her findings and notes with Lester, which enabled the two of them to work together with small groups during the face-to-face class meetings to address challenges Hamilton had identified, and in addition, enlisting the assistance of students who were demonstrating specific skills in an exemplary manner to help peers on an "as needed" basis

Hamilton loved how easy it was to evaluate bibliographic individual entries and the accompanying notecards for each source cited in one screen. This virtual space was an essential tool in providing students with feedback and igniting conversations about information sources.

Scoop.it and Curation

In the fall of 2011, Hamilton introduced Scoop.it (see figure 14) to the sophomores as a tool for curating and collecting resources on their research topic. Scoop.it is a free online tool that allows users to aggregate content from any source—the open Web or a database—and publish those resources in a website that looks like a beautiful visual magazine. As students created their "magazines" for their research topics and shared them with Hamilton, she followed their topics through her Scoop.it dashboard. Each day, Hamilton received a summary via e-mail of new activity on all the topics she followed; through this update, she could quickly see what sources students were exploring and collecting for their research. A bonus of the Follow feature is that students can easily follow the research of their classmates or experts outside the classroom who are curating resources on their research topics. Scoop.it also enables students to crosspost content to other potential learning, sharing, and reflection spaces, such as Facebook, Tumblr, Wordpress, and Twitter. In addition, as she viewed student topic magazines, Hamilton could easily suggest additional resources or offer commentary as needed on a source in a student's topic magazine.

Reflections and Conclusions

What factors are conducive to this kind of collaborative partnership between a librarian and an academic instructor? First, the librarian and teacher shared similar philosophies about teaching and learning. Without this shared vision of learning goals, the trust needed to cultivate this partnership would not have been possible. Another important element in this case study was the teacher's willingness to open up the possibilities of the physical and virtual spaces of the classroom. The class, which met primarily in the library, was able to establish a sense of community fairly quickly because of the collaborative and transparent nature of the course; the classroom was also open 24/7 because the students, librarian, and classroom teacher were able to communicate virtually after class hours through blogs, wikis, and e-mail.

Another important factor in this case study was the teacher's willingness to share ownership of content, pedagogy, and assessment practices that helped establish the librarian as a true coteacher of the course. Students recognized quickly that the librarian was not there just to provide ancillary support or just to teach information literacy skills, but that both Hamilton and Lester were facilitators of the learning activities and practices. One other essential ingredient for the success of this model has been Hamilton and Lester's willingness to focus on conversations about the concept of authority with students and to engage in inquiry about how and why information sources are appropriate for information-seeking tasks.

Based on this experience of being embedded in a class through face-to-face time as well as virtual spaces, Hamilton can't help but wonder how much more seamless and authentic research, content creation, and evaluation of information could be if more school librarians were embedded in a team of classroom teachers by grade level or discipline. The Media 21 embedded librarian model provides a glimpse of how school librarians can help teachers, students, and school librarians engage in conversations about multiple forms of literacy and consequently position information literacy as an essential literacy integrated into content area instruction. Research, information seeking and evaluation, and creation of content would no longer be isolated activities students engaged in once or twice or year, but instead, a regular learning experience. Hamilton hopes that Media 21 will inspire school districts to reconsider the current model of the solitary librarianship that creates an imbalance of staffing that is in direct conflict with the model of twenty-first-century classrooms that value learning focused on collective intelligence and collaborative knowledge building as a community of learners and instead forge a new model in which additional school librarians will be integrated into the faculty to help create these rich kinds of learning experiences for teachers and students.

Figure 14
Scoop.it

Notes

1. Deborah Brandt, *Literacy in American Lives* (New York: Cambridge University Press, 2001), 19.
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3. R. David Lankes, "Welcome," video, The Atlas of New Librarianship Companion Website, Institute of Museum and Library Services, accessed Dec. 19, 2011, www.newlibrarianship.org/wordpress. R. David Lankes, "Participatory Librarianship," video, YouTube, July 3, 2007, accessed Dec. 11, 2011, www.youtube.com/watch?v=7TyuVJ4vENo.
4. Wikipedia, s.v. "Personal learning environment," last modified Dec. 9, 2011, accessed Dec. 11, 2011, http://en.wikipedia.org/wiki/Personal_learning_environment.
5. Wendy Drexler, "Networked Student," video, YouTube, Nov. 26, 2008, accessed Dec. 11, 2011, www.youtube.com/watch?v=XwM4ieFOotA.
6. Please see Cherokee County [Georgia] School District, "Media21 Endorsement Program," accessed Dec. 29, 2011, http://portal.cherokee.k12.ga.us/departments/technology/media/default.aspx.
7. Howard Rheingold, "Mindful Infotention: Dashboards, Radars, Filters," Howard Rheingold: Online Instigator (blog), SFGate website, Sept. 1, 2009, accessed Dec. 29, 2011, http://blog.sfgate.com/rheingold/2009/09/01/mindful-infotention-dashboards-radars-filters.