

Seeing College Students as Adults: Learner-Centered Strategies for Information Literacy

Instruction

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Abstract

Information literacy instruction is a responsibility of many academic librarians and much has been written about approaches to this endeavor. This article explores ways in which pedagogy from the field of adult education can inform information literacy instruction in higher education. A review of the literature on adult learning is followed by suggested ways that academic librarians can incorporate these learning strategies into their instruction. A case description examines how librarians at one institution have addressed adult learning styles and classroom realities by using surveys for instructional pre-assessment. While further research is needed to assess the impact of these techniques, this article suggests that academic librarians can provide effective information literacy instruction and promote lifelong learning by treating students as adult learners.

Introduction

Academic libraries are charged with providing information literacy instruction to students who, while legally adults, most often come straight out of the K-12 educational system. In this era of “No Child Left Behind,” students have been taught to focus on test-taking skills rather than critical thinking or problem solving. Rather than reinforce these ways of teaching and learning, academic librarians have the opportunity to employ pedagogy focused on adult learning styles, thus encouraging students to rise to the next developmental stage as learners. Many of the key concepts of adult education discussed in this paper can be effectively applied to information literacy instruction in higher education, thereby giving instruction librarians a foundation for their teaching practices.

For new instructional librarians without a background in teaching, providing information literacy instruction can be a source of anxiety. The inspiration for this article came from the recognition that my previous career as an adult educator had informed my library instruction practices in a number of ways, including the employment of learner-centered strategies focused on intentionality, transparency, and multi-level instruction. This background has allowed me to quickly adapt to my instructional responsibilities at my current institution, which prides itself on its participatory, learner-centered, outcomes-based education. Based on the premise that academic librarians can provide effective information literacy instruction and promote lifelong learning by treating students as adult learners, this article is intended to equip new librarians with an understanding of the key concepts of adult education as well as practical examples of how to apply these concepts in the classroom.

Background

Signed into law in 2002, the No Child Left Behind Act significantly changed the landscape of public education in the United States. By requiring that public schools report numerical data on student outcomes and by tying federal funding to these outcomes, No Child Left Behind has prompted schools to place additional emphasis on standardized examinations. Because of the high stakes of the outcomes, teachers tend to focus their instruction on areas that they know will be assessed, concentrating more on math and reading at the expense of science, social studies, humanities, and other areas (Berliner, 2009). Standardized testing encourages factual recall over other aspects of thinking and learning (Cole, Hulley, & Quarles, 2009), and critical thinking in particular may be deemphasized by this focus on test preparation (Berliner, 2009). It should be of no surprise that college students coming out of the public school system may, through no fault of their own, be underprepared for the critical and reflective thinking required of them in higher education. In the context of information literacy instruction, librarians may observe this lack of preparation in students' difficulty in evaluating the credibility of information, as well as in other areas.

Academic librarians and other educators have often been enjoined to meet students "where they are" with regard to their levels of knowledge and experience in a particular area. The critical and more challenging next step is to help students move beyond their current developmental level. Kitchener and King (1990) have addressed this concept as it relates to reflective thinking, defined as the ability to identify a problem and analyze it or solve it using critical judgment. To describe developmental stages of reflective thinking, these authors have developed a "Reflective Judgment Model," comprised of seven stages. Kitchener and King suggest that many first-year college students are at stage three, characterized by trouble

differentiating fact from opinion, a lack of understanding that evidence can be used to support a viewpoint, and difficulty recognizing that certain authorities are better positioned to make judgments or draw conclusions than students are themselves. In order to promote the transformative learning that will move students to the next developmental stage, Kitchener and King posit that educators should structure their assignments to require critical reflection skills one level above where students are currently. For first-year college students, this might mean having them evaluate arguments based on evidence or identify multiple points of view.

Kitchener and King's (1990) model addresses the types of activities that should be assigned to students in order to help them move to the next developmental stage, but does not speak to the pedagogical techniques to be employed to this end. If the level of reflective thinking can be raised by challenging college students to perform at a higher developmental stage, it may follow that using pedagogical practice designed for adult learners would have a similar effect, that of encouraging students to adopt characteristics of adult learners. These characteristics include being self-motivated, goal-driven, and able to connect new knowledge to prior experience, each of which can be viewed as contributing to a propensity toward lifelong learning (Knapper & Cropley, 2000). In this vein, I propose that academic librarians, as well as other educators, can best help to free college students from the constraints of K-12 learning habits and promote lifelong learning by treating students as adult learners. In addition to the value for students matriculating immediately after high school, adult learning approaches may also address the needs of non-traditionally aged college students and those with varied learning styles better than more traditional approaches to instruction. While treating college students as adults will seem self-evident to some, it may have unexplored implications for the ways in which we teach.

In the following section, I will review the literature on adult education to address the characteristics and preferences of adult learners and the resulting approaches to their instruction.

Literature Review

In its broadest sense, adult education is the practice of teaching adults. Practically speaking, however, the term is typically applied to adults learning basic or vocational education in a non-traditional setting. This includes adult basic education (ABE; educational proficiencies through an 8th grade level), preparation for the General Educational Development (GED) test, English language acquisition (ELA), and vocational or life skills courses. A typical ABE or GED student did not complete high school and has spent years (sometimes decades) in the work force before deciding to improve his or her knowledge or job prospects by enrolling in adult education. A typical ELA student is more difficult to define, as cultural, educational, and socioeconomic backgrounds vary widely. While I will follow Brookfield (1986) in cautioning against the over-generalization of adult learning behavior and preferences, the literature suggests that there are certain commonalities shared by many adult learners that are relevant to the practices of teaching and learning.

Throughout the literature, many have differentiated the characteristics of adult learners from those of younger students (Brookfield, 1986; Knowles, 1980; Mathews-Aydinli, 2008; Mezirow, 1990; Pascual-Leone & Irwin, 1998). Four major themes emerge: adult learners are self-motivated, they are goal-driven or problem-centered, they benefit from connecting their new knowledge to their life experience, and they come from a variety of backgrounds, often creating a multi-level classroom. These characteristics have implications for what adults need from an educational setting. Knowles (1980) provides a concise overview of the implications of these

characteristics for instructional practice, noting that, due to their self-motivation, adults respond better to an internal drive for learning than to external sanctions, such as grades. While this may be less true for college students, who are often very grade-focused, an internal motivation for learning should be encouraged among college students in order to promote an inclination toward lifelong learning. Knowles also notes that adults are goal-driven, focused on the immediate application of new knowledge. As a result, they will benefit more from instruction centered on an identified problem that they can learn to solve. Because adults define themselves based on their life experiences, Knowles proposes that educators employ experiential techniques such as discussion and skills practice. Finally, Knowles acknowledges that it is typical in adult education to have groups of students with widely varying backgrounds, experiences, and learning styles. Approaches to such multilevel classes, as well as those addressing the other characteristics of adult learners, will be discussed below.

The term *andragogy* was proposed in the 1960s as an adult-centered alternative to *pedagogy* (Knowles, 1980; Deshler & Hagan, 1989; Merriam, 2001), but the term has not enjoyed sustained and widespread use to refer to the theory of adult learning. In fact, Merriam (2001) suggests that there is no single theory of adult learning, and that extant andragogical principles are best thought of as models or “pillars” of adult learning. Together with best practices that are widespread in the literature but may not be based in traditionally defined “theory” (due largely to the dearth of research in the field), I prefer to think of these andragogical principals as *approaches* to adult education. Common approaches include viewing the teacher’s role as a facilitator of learning (Brookfield, 1986; Mezirow, 1990a; PCAE, 1991), fostering a respectful and reflective classroom environment (Brookfield, 1986; Mezirow, 1990a, 1990b; PCAE, 1991), and using an assets-based approach through which learner experience is

acknowledged and built upon (Brookfield, 1986; Deshler, 1990; Freire, 1993; Knowles, 1980; PCAE, 1991; Worthman, 2008). While some of these practices are increasingly embraced in K-12 and higher education, they are a clear departure from “traditional” educational settings in which the instructor was seen as the sole expert, delivering lectures and discipline based on perceived student deficiencies.

Another approach to adult education involves the related practices of intentionality and transparency. Freire (1993, p. 79) describes intentionality as being the “essence of consciousness” and a quality to be invoked in learners. I would add that intentionality is critical for educators as well, meaning that there should be a specific intention behind each element of instruction. Instead of employing practices based on precedence or habit, educators must be conscious of the choices that they make in the classroom and the educational justification of each choice. To take an example from adult education, a teacher asking her ELA students learn a song in English would need to ask herself what she expected students to get out of this activity. If the intention were merely to keep students occupied or entertained, the activity would not be educationally justified. Choosing this activity because it would aid students with pronunciation and fluidity of speech is sufficient justification, and the teacher’s reflection allows her to be conscious of that intention. One’s consciousness as an educator is only the first step, with the equally critical next step being transparency, or the communication of these intentions to students. Because adults are goal-driven, it is important for them to know the purpose of a project or activity at the outset, a desire that may also be seen in college students (Huba & Freed, 2000). Adult education instructors who are not transparent about their intentions may experience student dissatisfaction, discordant expectations, and confusion (Burns & de Sylva Joyce, 2008; Johnson, 2005; Mathews-Aydinli, 2008). Returning to the above example, if students are asked

to learn a song without an explanation of the educational benefits, they might view the activity as a waste of time and be less engaged. It is important that both educators and learners understand the educational justification for classroom projects and activities; educators can achieve this by being intentional and transparent.

Lastly, participatory and learner-centered approaches have been widely employed in both adult and higher education. The two terms are frequently used in conjunction or conflated. Together, I take them to mean an educational approach in which students take active responsibility for their learning, including involvement with determining their learning needs and evaluating their progress toward the same. As Brookfield (1986) points out, student self-diagnosis of learning needs does not release the instructor from the responsibility of contributing to the discussion of what gets taught, which should rather be decided in dialogue with students. As defined by Pima County Adult Education (1991), learner-directed practices encompass many of the approaches mentioned above, including transparency, teacher as facilitator, and assets-based learning.

Application to Information Literacy Instruction

Many of the approaches described above are not unique to adult education; Merriam (2001) notes that Malcolm Knowles, one of the early proponents of andragogy, later acknowledged that the andragogy/pedagogy dichotomy was somewhat false, and re-conceptualized a continuum of teacher-directed to student-directed teaching, with the best approach depending on the situation. There are precedents, however, for applying approaches that originated in adult education to higher educational contexts, with varying degrees of success (Brock, 2010; Kaufmann, 2010; Stevens, Gerber, & Hendra, 2010), and at least one instance of

application to information literacy instruction of non-traditionally aged college students (Gold, 2005). I posit that many of the above educational approaches can be helpful in teaching information literacy to college students of all ages, and may potentially help them transition to the next developmental stage as learners. As noted above, adult learners tend to be self-motivated, goal-driven, and able to connect new knowledge to prior experience. These characteristics can be fostered in college students with the intention of creating lifelong learning habits. Thus, in addition to conveying the content of information literacy instruction, librarians and other educators are poised to develop student inclination toward lifelong learning. The adult education approaches described may be particularly useful for new instructional librarians who need a foundation for their intentional practice. Following are some general suggestions for using adult education approaches in information literacy instruction.

Librarian as Facilitator

The instructional librarian should play the role of facilitator in the classroom, whether it be for a one-shot library workshop or a semester-long, credit-bearing course. In a participatory, learner-centered model, the instructor facilitates while students take active responsibility for their learning. This means that the librarian should not assume sole expertise on the subject at hand, but rather facilitate the process of peer learning, possibly by encouraging discussion and group work. When evaluating the credibility of an information item or brainstorming a list of search terms, librarians can encourage peer learning by having students work in pairs or small groups, later sharing their results with the whole class. I have found students to be more apt to contribute to a full class discussion once they have had the chance to articulate their thoughts to one or two peers. The facilitation of peer learning is an assets-based approach that recognizes that many students have previously engaged with information literacy topics at some level and have

experience to build upon. It thus responds to both the adult characteristic of being defined by one's previous experiences and the nature of the multi-level classroom, in which student backgrounds and knowledge may vary widely. While this variation might be viewed as an obstacle for instruction, in a participatory, assets-based approach, it acts as an advantage, with the librarian facilitating knowledge transfer among students with different levels of experience.

Intentionality and Transparency

Students will be more motivated to take responsibility for their learning if there is transparency around the intentions of classroom activities, and if these activities are tied to their needs and experiences. This speaks to the importance of timing when scheduling a one-shot library workshop; if students are not yet faced with a project that provokes a need for library resources, they are unlikely to fully engage with information presented on these resources. A new librarian may assume that because she has been invited to do a library session with a class, the instructor will have already framed the session, explaining how it relates to upcoming course assignments and, for first-year students in particular, how library research fits into the larger academic paradigm. Such assumptions are often unfounded, and it may be useful to start a class session by asking students to describe the assignment they are working on, what role library resources play in their assignment, and where they have found useful information resources in the past. This framing of the session allows students to consciously identify their need for library resources and build on past information-seeking experiences, all while actively participating in the first few minutes of class (I have found that the earlier in a class session students start participating, the more likely they are to continue doing so).

Case Description: The Pre-Assessment

To further illustrate the classroom application of some of these approaches to adult education, I will describe in detail a practice of several instructional librarians at a small, public university that encompasses many of the learning characteristics and approaches described above: teacher as facilitator, intentionality, transparency, and participatory, learner-centered, multi-level instruction. At our institution, we have found that using online pre-assessment surveys to frame one-shot information literacy sessions allows us to be intentional and transparent with our instruction in a way that caters to adult learning styles. In advance of instruction, we assess students' information literacy needs and interests by using SurveyMonkey, an online survey tool that offers basic survey capabilities for free (our institutional subscription grants us additional functionality). Classroom response systems (clickers) or low-tech solutions such as chart paper and markers could be employed in a similar fashion.

The primary motivation behind administering a pre-assessment to students in advance of library instruction is to determine their information literacy strengths and needs, allowing librarians to build on prior student experience. Given that students may overestimate their abilities in certain areas, the pre-assessment should be used to determine a session's content in conjunction with librarian expertise and, importantly, the observations and needs of the course instructor. A typical pre-assessment survey (see Appendix) may include some general information about students' class standing and the number of library sessions they have previously attended. The main portion of our survey focuses on gauging student confidence in a number of common areas of information literacy instruction, including creating a research topic, using the library catalog and databases, evaluating information credibility, and using the required

citation styles. Final, open-ended questions on what students hope to learn from the session or what their topics are for the assignment at hand may also be included.

With the instructor's cooperation, the librarian can administer the survey in advance of the class, via email or a learning management system. While this method tends to have a lower response rate, it allows the librarian to view student responses in advance and is recommended for new librarians who might be more comfortable entering the classroom with a concrete plan. Another option is to have students complete the survey at the beginning of class, though this requires more flexibility on the part of the librarian, and if the class is not held in a computer lab, a reliance on a low-tech and less anonymous survey technique, such as chart paper and markers.

However the survey is administered, the results will inform the session's focus, with the librarian using student responses to intentionally structure instruction based on student needs. It is important for the librarian to be transparent about the survey results and how they will inform the session. I prefer to display survey results (which are anonymous) at the beginning of the class session and use them to frame the day's agenda. In addition to serving as an overview of topics to be covered, this discussion gives students an idea of the composite experience of their class. Students can see, for example, that most of their peers are comfortable creating a research topic but do not feel confident using library databases. This helps them understand why a larger portion of the class will be spent on database use, and, for those students ahead of the curve, allows them to recognize their relative expertise and be more patient with what they might otherwise view as repetition. When presenting survey results, I often mention that those students who ranked themselves particularly high in certain areas are welcome to share their experience with their classmates, thus playing the role of facilitator and helping moderate the potential frustrations of those students on the upper end of the knowledge spectrum in a multi-level

classroom. Likewise, when there are only a few students reporting little to no experience with using citations, I acknowledge that we will not spend much time on this topic during class, but that students needing additional assistance should visit the reference desk.

In addition to promoting intentionality, transparency, and addressing the needs of multi-level classrooms, the use of pre-assessment surveys to frame information literacy instruction fits squarely into the paradigm of participatory, learner-centered instruction. In this approach, students take active responsibility for learning and are involved in decisions about what to learn. The pre-assessment survey allows students to self-diagnose their learning needs and have a voice in the planning of the class. Another component of participatory education is student evaluation of their learning progress. Along these lines, I often revisit the survey results at the end of class, both to recap what was covered and also to remind students what they indicated that they had hoped to learn. This gives students a chance to evaluate their progress toward their goals for the session, and to identify any outstanding questions they may have.

While students have responded well to the pre-assessment and participating librarians have embraced it as positively impacting their instruction, its effect on student learning is admittedly anecdotal and its generalizability to different contexts has yet to be demonstrated. It is presented here primarily to serve as an example of using known pedagogical approaches to inform instructional practice, and it additionally suggests potential avenues for future research. Such research could include an investigation of student satisfaction with instruction sessions, including or excluding a pre-assessment, with regard to meeting needs and expectations, building on prior experience, and facilitating peer learning. On a broader scale, further research is necessary to determine whether using pedagogical approaches from adult education promotes

student development of the characteristics associated with adult learners and encourages lifelong learning.

Conclusion

In order to be confident and intentional educators, instructional librarians must have specific educational motivations behind their classroom practices. The justification of practice is often grounded in educational theory, or, in a field such as adult education where empirical research is notably absent, grounded in approaches based on observed characteristics and developmental theory. This article has attempted to provide new librarians with a basic understanding of the characteristics of adult learners and the instructional approaches that may best meet their needs. I acknowledge that many college students do not share the profile of a typical adult learner but argue that we do them a disservice by not treating them as adults. By fostering adult learning preferences such as being goal-driven, self-motivated, and defined by life experience, librarians are poised to assist students in their transition to the next developmental stage and to create lifelong learners.

This article has explored some general ideas for librarians to apply learner-centered approaches from adult education to information literacy instruction, such as taking the role of facilitator and encouraging students to take active responsibility for their learning. The example of using pre-assessment surveys to frame multi-level class sessions illustrates the principles of intentionality, transparency, and participatory, assets-based instruction. While there are many possible foundations for classroom practices, the principles and approaches of adult education can contribute to our understanding of teaching and learning, and create intentional practices of information literacy instruction.

Appendix

WLC 300 Fall 2011: Library Pre-Assessment

Exit this survey

CSUMB Librarian Sarah Dahlen will be joining the class on October 7th for a session on library research. In order to focus the session on those areas and skills that will be of most benefit to you, please complete this brief survey.

1. You are a:

- First-year student
 Sophomore
 Junior
 Senior

2. How many library sessions have you had at CSUMB?

- None
 1
 2
 3 or more

3. Please rate your level of skill or experience with the following aspects of library research:

	I don't have a clue	I've tried it before	I can make do	I'm pretty good at this	I'm a pro
Choosing and focusing a research topic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Searching the CSUMB Library catalog for books	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using CSUMB Library databases to search for articles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Evaluating the credibility of information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distinguishing between scholarly and non-scholarly information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using MLA or APA citation style	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. What is one thing you hope to learn from the library research skills session?

5. What ideas do you have for your capstone topic?

Done

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Library, Archival and Museum (LAM) Collaboration:
Driving Forces and Recent Trends

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Abstract

The information presented in this article is an overview of recent trends in library, archival and museum (LAM) collaboration. Sources utilized to compile the information for this article highlight different types of collaborative efforts to include the creation of digital collections and integration (library-museum partnerships), identifying and fulfilling patron needs, and relationship building. In addition, this article can offer LAM professionals understanding how integrating collaborative practices can improve lifelong learning for patrons. Despite the fact that collaboration between libraries, archives, and museums is not a new phenomenon, this is an especially important topic because of technological advances, and budgetary issues which has influenced the way information is delivered to patrons.

Introduction

Library, archive, and museum (LAM) professionals are idiosyncratic demographics with a diverse need to perform complex tasks. Their tasks are becoming more complex as a result of collaborations that lead to overlaps in information science and cultural heritage concentrations due to organizational changes and technological advances (Edwards, 2003). The merging of skills and resources allows professionals to transcend the traditional boundaries of well-established library and information science (LIS) concentrations to allow forward thinking application of collaborative models. This collaboration extends access to a more diverse group of users than in the traditional sense (Falls, 2009).

As noted above, libraries, archives, and museums are three distinctive cultures; nonetheless, the boundaries between them are being slowly blurred due to the use of integrated access systems. Because of their divergent cultures, LAM collaborations must be aware of varying levels of technology that hold the potential to enhance user experience when implemented across disciplines.

Each institution offers a unique experience to a defined set of users; however, a collaborative effort on the part of the LAM will provide open access to a wider range of records. It is because of this that the traditional OPAC may fail to fulfill the needs of a LAM collaboration wishing to offer greater exposure to library materials, refined access, and simpler discovery methods. This is where integrated access systems and specialized interfaces have the potential to come into play (Deng, 2010).

LAM Collaboration

Collaboration makes it possible for institutions to take advantage of professional customs and the expertise across a far-reaching continuum. Collaborative models are expanding the user

populations of libraries, archives, and museums to improve their chances of learning their associated community's languages and practices, establish common interests, and serve a greater good to the community.

Zorich, Waibel and Erway (2008) discuss the inevitability of the convergence of LAM collaborations due to their organizational commonalities. The authors offer an interesting view into the collaborative environment, which allows the viewer to deduce that collaborative efforts serve as a catalyst which will allow long-term projects of greater importance to be developed and released to a more diverse audience (p. 18). Recent studies reveal that the overwhelming goal of collaborative activity is preservation. This goal is followed by joint storage of holdings, coordinated and joint exhibition, exchange of holdings, processing materials and other activities that when performed in a collaborative environment between LAM professionals and organizations might make them idyllic cohorts in joint ventures (Tanackoviæ & Badurina, 2008, p. 565). It is also important in these collaborations that libraries incorporate museum and archival pieces into their collections and/or exhibits to create a more customer-centric experience. Dilevko and Gottlieb (2011) suggest that museum-library partnerships allow libraries to include museum objects into library collections thus allowing them to offer their patrons an interdisciplinary learning environment and outreach to new audiences.

It is suggested that, in a networked age, collaboration is no longer a choice. Although libraries and museums operate in different structures, they have similar goals and are each adopting aspects of the others' operations. For example, while libraries utilize technology and standards and museums are practiced with presentation, collaboration is allowing them to merge these skills to create a unique experience (Wythe, 2007, p. 54). Collaboration brings about unique opportunities such as the ability to share research and allows access to different

disciplines. In keeping with this theme, Timms (2009) makes an argument for integrated access systems that will allow for the unification of traditional and electronic media while maintaining artifact and informational value. What is to become of archival materials that have been digitized in a collaborative effort? There seems to be no question as to the continuity of museums, but rather with continued digitization efforts and budget constraints within public libraries. The question remains: who and how will we safeguard physical collections that need to be preserved for posterity (Lester, 2001).

The Smithsonian Institution is a prime example of an organization that engages in LAM collaborations. It is a member of The Commons, which is a Flickr-based consortium of 50 worldwide institutions to increase access to publicly held photography collections and to provide the public a way to contribute information and knowledge. Adding tags and comments to photos that are posted on The Commons in which a viewer may have subject matter knowledge or interest encourages public contribution. This collaboration brought content to the online community, and utilizing the Web 2.0 platform has allowed the Smithsonian to develop its collection in a way that is appealing to visitors. In an ever increasing digital age, The Commons allows visitors to interact with one another online and permits them to see content that they may not have otherwise have been able to view during their lifetime. As an added bonus, there are no copyright restrictions on the content at The Commons, and this allows visitors to save or reproduce photos without fear of legal repercussions. An innovative aspect of this collaboration is the time taken prior to beginning the project to develop goals related to marketing and establishing an online presence (Kalfatovic, et al., 2008).

The Southern Oregon Digital Archives (SODA) adds a new perspective to the notion of LAM collaboration when one examines the partnership between a Native American Indian tribe,

University library, and state and federal governments. SODA, funded by a grant from the Institute of Museum and Library Services (IMLS), formed two digital collections: the Bioregion Collection and the First Nations Collection (Cedar-Face and Hollens, 2008, p. 116). The Bioregion is a collection of ecological materials related to the Siskiyou-Klamath-Cascade bioregion while the First Nations Collection is an ethnohistorical, governmental, legal, linguistic, and cultural collection of documents on the indigenous people of the nine federally recognized Oregon tribes of the bioregion. There are more than 1,600 fully searchable digital documents between the two collections. Cedar-Face and Hollens (2004) article brings ownership issues to the forefront as they relate to relationship building. In addition, SODA is preserving digital documents from federal websites such as the Forest Service and the Bureau of Land Management in an effort to permanently preserve them (p. 117).

Barriers to Collaboration

Education is a common barrier to an effective LAM collaboration. For instance, in recent years, a librarian must obtain a master's degree in library and information science in order to work in the field. This is a shared common education level among peers. In the case of archival and museum professionals, this has not been the case. In most instances, an archivist or museum curator will have a degree in history. Because of this lack of educational common ground, LAM collaboration can become a bit more taxing. Libraries, archives, and museums use the same or similar database programs; this similarity decreases frustrations in collaborative efforts. No matter what the cultural differences, libraries, archives, and museums share a common goal of collecting and preserving of our cultural heritage for the education of the public.

Copyright and fair use must be considered for a digital image database to be created. Digital information provides new challenges to LAM collaborations in regards to licensing,

copyright, and fair user as well as access and service of different formats. While librarians and archivists may be sensitive to these issues because of experience in providing photocopies to users for personal use, museum professionals may not have not been exposed to this type of access issue.

Collection development presents more of an issue to libraries and archives because of the breadth and depth of their collections. While an archive might not have the breadth of a library collection, their depth is frequently similar. Each institution entering into LAM collaborations must make a decision as to which material it will select for digitization and inclusion.

Theoretically, a museum would have a much easier time determining what should be included for online consumption because they would digitize an entire exhibit when possible so as not to leave out anything. Although electronic documents and digital representations of objects or exhibits will be used more frequently in the future, online users of a LAM collaboration will not notice a difference because the content of the websites looks alike and serve similar function but they will have access to more information.

Although metadata is essentially an information resource that describes certain characteristics about data, it is also being used to link data within the context of the medium being utilized as well as the collaborative project itself. In particular, archivists are using metadata to add contextual elements to the information at the creation point to ensure authenticity and provenance of digital records (McInnes, 1998). In LAM collaborations, three different standards and practices need to be reconciled into one collaborative project. The table below provides a brief glimpse of standards and practices that are available to online users as a direct result of technological advances in an integrated library system (Allen, 2002, p. 2).

	Users	Online Standard	Use	Examples
Libraries	Education Research Recreation	MARC	Capture bibliographic information	Books, manuscripts, photographs, maps
Archives	Research	EAD	Mark up archival finding aids	Digital Image Surrogates (archival material)
Museums	Education Research Recreation	Collection Management Systems	Search automated collection management information	Digital Image Surrogates (exhibits)

Collaboration cannot occur without support; however, that is occasionally the challenge. Key supporting functions for collaboration that require integration are finance, staff, community and public relations, and document/collection management. While collaborative projects can be created and accomplished, supportive functions must remain diligent for projects to continue. Successful management of internal support function can result in increased hours, operating budget, positive impact on human resources, and project support. According to Raab and Roth (2001), once collaboration has been achieved, the urge to return to business as usual must be fought and relationships must continue to be groomed.

Funding has become an issue to public LAM alliances over the years especially with federal and state budget cuts. One of the greatest incentives of these collaborations has been grant awards provided by the Institute of Museum and Library Services (IMLS) (Institute of Museum and Library Services, 2009). Since 2000, the IMLS has awarded over \$3 million in funds to technologically minded LAM collaborations (Dilevko & Gottlieb, 2011, p. 160). Cole and Shreeves (2004) go on to provide pertinent statistical information regarding digital collaborations and grants awarded by the National Leadership Grant (NLG) program. In many

ways, the NLG program promotes collaboration through research on partnership activities and needs.

Moving forward, LAMs should continually work to seek opportunities to collaborate and cultivate relationships to enhance patron experience. Rodger, Jorgensen, and D'Elia (2011) offer statistical information regarding the driving forces and impact of partnerships and collaboration on the lifelong learning of patrons and to build upon their collective strengths to improve products and services. Gluibizzi (2009) states that developing outreach programs through partnerships and collaborations will ensure the continued success of LAM collaborations.

One of the most important aspects to be taken away from the LAM collaboration is the focus on how alliances help to deliver the information that patrons are looking for. Although the methods of delivery will continue to change with digital and technological advents and collaborative efforts, the constant will always be delivering service to patrons.

Conclusion

The extent of research related to collaborative project between libraries, archives, and museums is to a certain degree limited; however, available information is diverse and innovative. This research exemplifies how traditional institutions can improve their products and services through collaboration and cooperation. LAM collaborations enable digital resources to be integrated and accessed on a wider scope than basic asset management tools used on an institution level. Collaboration not only raises the capacity of libraries, archives, and museums to share on the digital front, but it also proves to be cost-effective in the end to both the LAM collaboration partners as well as library patrons. Working in collaboration will give participating institutions the opportunity to develop more practical software and standards for broader content sharing (Rinehart, 2003).

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***College Libraries and Student Culture: What We Now Know.* Edited by Lynda M. Duke and Andrew D. Asher. Chicago: American Library Association, 2012. 191 pp, ISBN 978-0-8389-1116-7.**

Reviewed by Paula L. Webb, Reference and Electronic Resources Government Documents Librarian, University Library at the University of South Alabama

College Libraries and Student Culture was one of the results of a 21-month research study conducted from 2008 to 2010 and funded by a Library Services and Technology Act grant through the Illinois State Library. The project, titled Ethnographic Research in Illinois Academic Libraries (ERIAL), studied various aspects of student academic research, such as methods students use and how they access needed resources. The four core goals of this project were to gain firsthand accounts of how students researched for assignments; explore the relationships that shape this process; determine what roles librarians play in the research process; and modify library services to more effectively meet the needs of students.

The ERIAL project had more than 650 individuals, from librarians to students, participating in the study and provided an in-depth analysis of academic library service with a focus on libraries' relationships with students and faculty. A number of contributors to this publication studied social interaction factors between librarians, teaching faculty, and undergraduates. The chapter authors approached other challenging issues such as teaching faculty and librarian expectations, marketing library instruction services on campus, student behavior, and seeing library spaces through the students' eyes. Thorough in its approach to gathering knowledge, this resource can be very useful in discovering how current college students access information.

Asher and Duke discuss their findings in the final chapter of the book: Conclusions and Suggestions for Future Research. This project was unique in that it used site-specific data (information gathered from individual institutions) as well as cross-institutional comparisons with select components of the data. The editors point out the relationship between the librarians and teaching faculty within the students' research processes as one consistent and very important factor between the different institutions.

One interesting study is the analysis of the teaching faculty and librarian expectations and values. Thirty faculty and nine librarians from DePaul University and Northeastern Illinois University were interviewed with questions focused on the interplay of teaching faculty and librarian values and areas of conflict or inconsistency. One faculty member shared the perspective that librarians can give the student more information than they need, causing frustration. This information could influence the future response of the librarian. Instead of asking the student, "What do you need?" the librarian could ask, "What is your immediate need?"

College Libraries and Student Culture is an excellent study of relationships in the research process. The analyses were very informative, and the data is a useful foundation for future

studies. This publication is recommended for instructional librarians and teaching faculty who want to use library resources in their courses.

***Reference reborn: Breathing new life into public services librarianship.* Santa Barbara, Calif: Libraries Unlimited, 2011. 401 pp. Ed. by Diane Zabel. ISBN 9781591588283.**

Reviewed by Amanda Dinscore, Public Services Librarian, Henry Madden Library, California State University, Fresno

There isn't a librarian out there who is absolutely certain what the future of libraries looks like. And there is no library service that invokes more uncertainty than reference. As a free service where anyone can get help with just about any question, library reference is unlike anything else in our society. As such, it presents unique challenges and possibilities for both librarians and administrators.

This volume of 25 essays attempts to address these challenges and possibilities by examining reference from almost every angle. Written by both new and seasoned librarians, these essays highlight issues in both academic and public libraries and would be insightful for any librarian who interacts with the public. The volume is organized in a way that makes it easy to consult based on the needs of the reader and does not necessarily need to be read cover-to-cover. Students and new librarians will find a fairly comprehensive, informative and, at times, inspiring snapshot of reference librarianship as it exists today and examples of trends that will likely shape its future.

What is readily apparent in this collection is that reference is in no way "dying out" (Carlson, 2007). What is even more apparent is that the traditional librarian-behind-the desk service model is being re-imagined by many libraries in ways that better meet the needs of users. Additionally, these new roles and service models are not a threat to the venerable institution of reference but are a way to ensure its value, and thereby its survival, in a world where many of the variables have changed. Many libraries have acted on this and have helped facilitate a sort of "Reference Renaissance" (a term coined by the volume's editor, Diane Zabel, in a 2007 editorial published in *Reference and User Services Quarterly*) that has renewed interest in how reference can be re-conceived rather than abandoned.

As evidenced by the diversity of its essays, the volume defines the concept of "reference" broadly and contains quite a number of pieces that deal more generally with the changing roles of librarians. "The Embedded Academic Librarian" by Sharpless Smith and Sutton is one example. The authors describe embedded academic librarians as those who go beyond the activities of reference and instruction to "position themselves as full partners in the academic enterprise." Additionally, Smith and Sutton point out that in tough economic times it is essential to consider where a librarian's time is best spent and question whether staffing the reference desk full time is the most effective way to meet users' needs.

Several essays address the fact that the current recession intensifies the need to be creative with service provision, especially with reduced staff and resources. Librarians have proven themselves to be very adaptable, despite previous characterizations to the contrary, and have been taking on diverse job duties for years. Several articles address the skills and knowledge librarians need for responsibilities taken on in addition to reference including instruction, marketing and outreach, collection development, web design, assessment, keeping up with trends

in technology, and scanning the environment to better adapt to change. While the book is most relevant to librarians who interact with the public, many of the articles would be of interest to anyone working in libraries today.

Another theme found within the work is the need for librarians to continue to meet users at their point of need. In the chapter, “Going Beyond the Desk: 21st Century Reference, Outreach and Teaching Services,” authors McKeigne and Blake state that librarians “leave the library to help sustain its place at the heart of the university.” Whether it is out in the stacks, at the student union, within the classroom, or through a social networking site, reference encounters are increasingly occurring in places other than the reference desk. Librarians that have been successful in “breathing new life” into reference have increased their personal contact with patrons even while the number of ready reference transactions has gone down (Zabel, 2007). By exploring different service models for reference desk staffing, embedding oneself in academic departments and elsewhere, using social networking tools for reference and outreach, providing reference services virtually and within virtual worlds like Second Life, the authors who have contributed to this work offer new and exciting examples of what can work if librarians and their institutions get creative with what constitutes “reference.”

In the not-so-distant past, librarians have been characterized as inflexible and stubbornly traditional in their approach to reference (Carlson, 2007). This volume shows that this characterization needs to be discarded like an old computer manual. Librarians have proven themselves to be adaptable and innovative and are capitalizing on what has always set reference apart—excellent public service. While this book does not offer the magic bullet that its title seems to promise, it does provide in one accessible volume a collection of articles that, together, paint an optimistic and realistic picture of what reference services look like today as well as possibilities for the future.

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***Without a Net: Librarians Bridging the Digital Divide*, by Jessamyn C. West. Santa Barbara, CA: Libraries Unlimited, 258 pp, \$40.00, ISBN 978-1598844535**

Reviewed by Beth Overhauser, Helmke Library, Indiana University-Purdue University Fort Wayne

Computer skills are not a luxury. Across the United States, tax forms, unemployment assistance, and other vital government services are increasingly available only online. Despite its ubiquity, many American adults do not use the Internet at all. In the ambitious book *Without a Net: Librarians Bridging the Digital Divide*, Jessamyn West explains why this digital divide exists and what libraries can do to bridge the gap.

West begins by describing her twenty years of experience teaching technology to novices. She contextualizes the needs of her patrons in rural Vermont with longitudinal data about nationwide technological adoption. Others have analyzed the digital divide in specific philosophical, political, and sociological contexts, but West focuses on what librarians need to know to provide excellent services to technology-averse patrons. West's analysis provides an excellent groundwork for library advocacy as it relates to technological literacy.

The centerpiece of the text is a toolbox of technological pedagogy for librarians. West identifies the characteristics and motivations of library-teachers, technology novices, and technology companies. Subsequent chapters address various types of computer skills, from using a mouse to surfing the Internet. West clearly identifies discrete skills, explains their context, suggests concrete teaching techniques, and illustrates each section with examples from her own experience. Online tools and resources are referenced throughout, with a helpful appendix organized by topic. In addition, West has compiled a companion website with an annotated bibliography, a list of web resources, and links to her own handouts and presentations.

As with any printed book about digital topics, the data and references are already dated. Readers should be aware that a few of the web-based tools West refers to have undergone significant changes or disappeared completely (Google, Google Labs). More recent data from Pew Research Center, the U.S. Census Bureau, and other government agencies should be consulted by those considering advocacy. The book's companion website includes links to facilitate further research.

West's tone is chatty and accessible, though the casual language occasionally impedes clarity. The text lacks focus – tangents are frequent and lengthy – but clear chapter headings and a solid index are helpful reference tools. Academic and special librarians may prefer to consult library science textbooks or scholarly articles for pedagogy advice tailored to their needs.

This book is an essential text for public librarians, especially new librarians and those who did not receive training in pedagogy during library school. Librarians that work with technology novices or underserved populations will benefit from West's simple explanations of complex technologies. The book may also help tech-savvy librarians and digital natives relate to and design services for technology-averse patrons. For the technology-averse librarians among us, the book can serve as a primer. The text will truly help librarians bridge the digital divide, leaving neither librarian nor patron without a net.