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# Teaching the Digital Divide: Connecting Students to Community, Knowledge, and Service Learning.

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**Article Title:** "Teaching the Digital Divide: Connecting Students to Community, Knowledge, and Service Learning."

**Abstract:** This article addresses the purpose, the organization, and results of an experimental credit-bearing upper division service-learning course at a Master's granting university, entitled LIBR 397: The Digital Divide.  In addition to reviewing collegiate efforts on teaching the Digital Divide within the United States, this article also provides an overview of the challenges and successes associated with teaching such a course. In conclusion, the unique nature of the LIBR 397 course prompted students to see firsthand the complexities inherent in the Digital Divide phenomenon within the United States. Incorporation of service learning projects into a college course takes additional effort, primarily around planning and communication, but is a useful strategy for combining practice and theory in an academic setting – collegiate or otherwise.

**Service Learning & The LIS Profession**

Janet Eyler and Dwight Giles' classic, the 1999 text *Where's the Learning in Service Learning?*, was a critical turning point in the national conversation about service learning (commonly abbreviated as SL) in academia. The authors reported that incorporation of service learning activities into university classrooms had resulted in higher levels of compassion for others; greater respect for diversity; and a stronger commitment to citizenship (Eyler & Giles, 1999). Reviewing the literature outside the field of library and information science reveals similar themes, the first of which is that service learning endeavors addresses the noted decline of national civic engagement among youth in the United States (Barber, 1992; Bennett, 1997; Hildreth, 2006). Another common message is that service learning activities in academia creates reciprocal relationships between the university and the community, which reduces the perceived gap between the "ivory tower" and the surrounding region (Blouin and Perry, 2009; Lewis, 2004).

Within the field of library and information science, academic librarians have also incorporated service learning activities into their curriculum. The existing literature shows that since former ALA President Nancy Kranich called for higher engagement of SL in the profession, librarians have certainly heeded the call. In their article on training LIS students in service learning during their graduate program, authors Cuban and Hayes argued that SL combined theory with practice by highlighting the complexities of teaching information literacy to adult learners (2001). And in his article "Where's the Library in Service Learning?" author John S. Riddle comments on the relative scarcity of service learning opportunities in academic library settings until after Kranich's call for engaged library instruction and stronger connections to community organizations through her presidency goals. Riddle concludes that when academic librarians engage in

service learning-related instruction, they increase their own academic and professional relevance, stress the importance of civic education to their students, and contribute significantly to pedagogy (2003).

In Lynn Westney's 2006 article, "Conspicuous by Their Absence," the author provides an overview of service learning in the field of library and information science, operating on the clear distinction between service learning – educational service through which both students and community partners benefit – and volunteer service, which is service primarily for the benefit of a community organization. Westney cites several examples of public libraries that have successfully partnered with community and/or nonprofit organizations, and maintains that if academic librarians want to remain relevant to their surrounding community they would benefit from incorporating service learning principles into their work (2006). Countless scholars have since echoed these conclusions for projects that have occurred in academic libraries: Meyer & Miller's 2008 article "The Library as Service Learning Partner" cited the successful service learning project where students conducted RefWorks workshops, which resulted in better understanding by students of academic libraries and scholarly communication. Nutefall's 2011 article discusses the importance of service learning in academic libraries for engaging collegiate students, and for increasing the relevance of library services to both the host institution and the surrounding community.

The professional and scholarly conversation continued on in Nancy Herther's article "Service Learning and Engagement in the Academic Library," where she defines service learning as a combination of community service and traditional classroom curriculum. Herther cites statistical data on incoming college and university students, which demonstrates high exposure to service learning opportunities throughout their K-12 school experience. While service learning is means more work and effort for instructors, Herther maintains that service learning in an academic library setting provides a rich and unique experience because students are required to go beyond the traditional needs of classroom curricula. In short, they must define their own information needs, manage time obligations to community partner, and must demonstrate an overall greater level of responsibility (2008). Lastly, Mary Ball's 2008 article "Practicums and Service Learning in LIS education" called for increased service learning opportunities in LIS graduate education, and after citing a thorough overview of the development of service learning curricula, argued that students benefit greatly from experiential education.

**The Digital Divide & The Academy**

The concept of a digital divide began appearing in the mid-1980s, and described a gap between certain demographics with regards to access to computer and information

technology (Mossberger 2007). As the World Wide Web has evolved from a Web 1.0 paradigm in the 1990s to a nascent Web 3.0 worldview, the definition of the Digital Divide has evolved correspondingly. Now in 2013, the Digital Divide doesn't just address the lack of physical access to computer and information technology but also describes a discrepancy of technological and information-related skill sets between demographic throughout the United States (and the globe) (Kaplinsky 2005). This phenomenon, subsequently, impacts cultural, economic, and personal participation for individuals within these groups on the Web (Shelley et al 2004). Furthermore, individuals from these groups who have historically experience reduced access to technology, and may now have a desktop or smartphone, are how facing reduced skills in information literacy (Mossberger 2007).

In addition to examining the importance of service learning in the profession, in LIS education and in practice, it is necessary – for the purposes of this article – to examine efforts around teaching the Digital Divide phenomenon in collegiate settings. Here, the literature yields very mixed results, as there exist both scholarly assessments and practical projects but both in limited numbers. The former can be found in articles such as Patricia Overall's work, "The Effect of Service Learning on LIS Students' Understanding of Diversity Issues Related to the Equity of Access," which demonstrates that service learning in LIS education, when focused on issues of equity, access, and participation, increased understanding of these issues beyond the traditional coursework (2010). In regards to actual university courses designed to teach students about the Digital Divide, the University of Rhode Island offered a collegiate undergraduate six-week-long course as far back as 2001 (Multicultural Center 2004), while the University of Manchester, in the United Kingdom, offered a similar course during the 2003-2004 academic year (Westrup and Greenhill 2003). Unfortunately, aside from a brief syllabus, not much is known about the course content. While these other courses have taught specifically about the Digital Divide, there is no evidence that these courses offered a service-learning component.

In regards to the "practical" projects, defined by their functional purpose in providing direct access to information, there are vast electronic bibliographies that deliver a wide overview of subtopics and considerations on the subject, such as Stanford University's "Digital Divide" site, hosts a thorough electronic bibliography on the topic (Stanford University 2014). A similar site – in function, if not narrative – is the Internet Public Library's Digital Divide site, which was created by an ALA Carnegie-Whitney grant and is designed to provide an electronic bibliography on the topic (IPL 2014). But, due to the scope of these sites, these sites are gateways to additional information – not critical analyses of the Digital Divide phenomenon (abroad or global).

In reviewing this literature, it is clear that there is little discussion about combining the theory (and practice) of service learning principles in application to information literacy, technological access and competency, and the knowledge about the Digital Divide. While authors may have addressed the importance of service learning in LIS education, or the importance of understanding the Digital Divide through the lens of information literacy, few – if any – have combined this unique combination of knowledge into a collegiate credit course.

## Course Design & Implementation

*Overview of WWU Libraries*

Western Washington University Libraries is an academic library, featuring a main library encompassing two buildings totaling 200,000 square feet, a collection of over one million volumes and an acquisitions budget of just under $2 million. Library personnel include 15 faculty and 45 staff. Managed by the Instruction Coordinator, the Western Libraries Instruction program supports the academic programs of Western Washington University in addition to the Washington State goals of information literacy through an array of instructional services. Through a combination of one-shot instruction, credit-bearing courses, and unique First Year Experience programs, the academic librarians afford Western Washington faculty an array of educational opportunities. Furthermore, Western Libraries faculty has the freedom to design experimental courses and/or focus on Special Topics.

*Development of the Course: Practice + Theory*

Given the relevance of the topic (the Digital Divide) to the stated goals of information literacy pedagogy at Western Libraries, the possibility of teaching an upper division credit course on the Digital Divide was intriguing. After an illuminating conversation with a colleague, and a referral to the campus Center for Service-Learning, the author determined that incorporating SL into the curriculum would imbue a theory-based course with a practical approach to studying the Digital Divide in the Whatcom County region, where Western Washington University resides. The resultant course, LIBR 397C, was a ten week course organized into a series of weekly topics that draw upon a "toolbox" of concepts, some of which were drawn from scholar Karen Mossberger's text *Digital Citizenship: The Internet, Society and Participation*. The "toolbox" analogy was a useful concept to convey to students several foundational themes that are inherent in studying the Digital Divide, the first being the very concept of the Digital Divide (Indeed, the course began with an examination of arguments around whether the Divide really existed, or if ubiquitous technology had fixed everything).

Organized into weekly topics, the course covered how the Divide manifested on a global scale, and how the phenomenon affected the following demographics: age, gender, race and ethnicity, (dis)ability, prison populations, and more. Along with a midterm and a final exam, the students also had to craft a handbook, composed of ten chapters and with each chapter corresponding roughly to one week and one topic. In these chapters, students submitted their class notes (as evidence of their participation), and their contributions for the "Digital Divide in the News" segment, where students found a current news or magazine article that discussed issues of information and technology inequity. The purpose of this brief assignment was to train students to recognize the Digital Divide in "real life" settings. Lastly, students chronicled both their responses to assigned course readings, and reported on their field experiences while working with their Community Partner.

In addition to completing an individualized Handbook, students were required to complete a 15 hour service learning project with a Community Partner of choice.  The Community Partners were Whatcom County Library System, Bellingham Public Library, and the Bellingham Senior Activity Center. For some background, the Whatcom County Library System is composed of nine libraries, all located in largely rural locations throughout the county. In contrast, the Bellingham Public Library serves the small city in which Western Washington University is housed, and serves a more "urban" population, with a widely ranging skill set. Lastly, the Bellingham Senior Activity Center is a nonprofit organization devoted to engaging seniors in a variety of activities to improve overall quality of life. In regards to the services the student volunteers provided, both Whatcom County Library System and Bellingham Public Libraries sought Tech Tutors -- individuals who would station themselves in a community computer lab and be available to answer information technology-related questions. In contrast, the Bellingham Senior Activity Center sought volunteers who would create a one-time instructional activity about social media. Upon completion of the project, the volunteers would then teach the seniors through a hands-on workshop.

Once the students had determined which Community Partner they wanted to work with, they formed three small groups based on their mutual interests in serving the same partner. This was beneficial in two main ways. First, the LIBR 397C students could arrange carpooling efforts and alternative transportation amongst each other to alleviate the travel-related costs associated with volunteering. Second, the group formation eased the burden of managing new volunteers for their respective Community Partners. Every organization had a volunteer training process, and it was much easier for the personnel to marshal a group of students through the process than several individuals.

**Opportunities and Challenges**

Throughout the development, implementation, and aftermath of the quarter, several realizations about the unique nature of teaching a service learning course which focused on the Digital Divide presented themselves. Let's begin with the opportunities.

a. Learning about the Digital Divide.

As the content of the course was about the Digital Divide, students who enrolled in the course learned about the concept, from origins to current manifestations throughout the world. The knowledge that is foundational to this course – such as information literacy skills, and an understanding of the access and social justice issues – is especially useful in daily activities, particularly in a world where the need for these skills are crucial but often not recognized or acknowledged. Furthermore, several students indicated their interest in becoming either librarians, or other types of ICT professionals. Since LIBR 397 provided a combination of course credit, experiential education, and civic engagement at the undergraduate level, many of the students expressed a hope that this course would provide them a foundation for their planned graduate studies.

b. Reciprocity:

John S. Riddle's article mentions the element of reciprocity in service learning projects. The concept, when applied to service learning, is that everyone involved is both a teacher and a learner: Recipients in a service learning setting receive a new skill set; student participants also are provided with an educational experience that details unique insight into real world issues, in ways that neither a textbook or a lecture could hope to cover (Riddle 2003). And in practical terms, students also walk away from the course with a tangible product or work experience to include on their resume or vita. In conclusion, the LIBR 397C students gave their time and expertise to the Community Partners, and received a grade, a resume builder, and a (hopefully) more nuanced understanding of the Digital Divide phenomenon.

c. Building Community Connections:

Designing the LIBR 397C course required building partnerships between the University and the regional community, which began a relationship between the students, the community partners, and the campus entities that may continue well into the future. Several of the LIBR 397C students expressed interest in continuing to work with the community partners beyond the length of the quarter, while the community partners

expressed great interest in continuing to work with the Libraries in service learning opportunities. The goodwill and enthusiasm gained by LIBR 397C students provided a strong foundation for further partnership.

*Challenges*

a. Time Management:

Western Washington University operates on a quarter system, where the academic year consists of three quarters of ten to eleven weeks. Furthermore, faculty are required to provide two hours of educational tasks outside of class for every credit hour. When coupled with a fifteen hour service learning commitment, the LIBR 397 students ultimately agreed to take on a sizeable commitment – much more so than their peers. One challenge was to balance a respect for their time with the needs inherent in creating an effective project that would provide a valuable educational experience that prompted critical inquiry into the factors involved in the Digital Divide alongside their course content – and manage those requirements within a ten to eleven week window. This also has implications for future enrollment: Not every student desires to commit so much to one course.

b. Location & Transport:

Many of the LIBR 397 students were limited to bus, bike, or carpooling as a means of transportation.  Thus, attempting to partner with the Whatcom County Library System seemed an initial challenge for interested students (where the Community Partner had requested Tech Tutors in rural library settings). Providing in-class time for students to determine their preferred service learning project, and how they would get there, proved very beneficial. During this time, students with cars offered transportation to those without vehicles. Thus, carpooling was a successful solution to this problem.

c. Establishing Connections with Community Partners:

Meeting potential Community Partners, and establishing projects that could be completed in fifteen hours, would have been very difficult had it not been for the Center for Service Learning at Western Washington University. They provided a great deal of guidance in developing the project parameters, and in making the very valuable connections within the community of Bellingham, WA. Fortunately, since the majority of proposed partners were library or literacy organizations, marketing the course concept wasn't a barrier to initial understanding and/or subsequent desire to participate. For campuses without such an organization, try connecting with nonprofit organizations

such as VolunteerMatch.org – an organization that matches nonprofit needs with potential volunteers (2014).

d. Marketing the Digital Divide to University Students:

Though there was no course pre-requisite, the majority of LIBR 397C students were technologically savvy and understood the basics of information literacy prior to enrolling in the course. Thus, it was no surprise that they were attracted to taking a service learning course about a concept with which they had some familiarity. However, the bulk of university students are unfamiliar with the phrase "The Digital Divide," its use being limited primarily to the ICT fields. In addition to traditional marketing of the course through fliers, emails, and 'advertisements' throughout Western Washington University's virtual space, the Libraries distributed fliers with QR Codes that, when scanned by smartphone applications, would direct users to the virtual announcement of the course. However, only eleven students enrolled during the Fall 2012 quarter. With the benefit of hindsight, future marketing of the course will involve more accessible language about the Digital Divide, information inequity, and participation.

**Emerging Patterns**

Upon the culmination of LIBR 397C, the three student groups presented on their respective service learning experiences. Throughout their discussions, several patterns emerged:

*Diversity within Demographics*
Students who volunteered at the Bellingham Public Library reported their anecdotal evidence that individuals within a demographic (age, ethnicity, etc.) had widely disparate skill sets. For example, one young individual may be able to film and edit a short video on the computer whereas another patron of a similar age was unable to navigate YouTube. This disparity of skill sets among a demographic provoked thoughtful discussion about the other factors involved in the Digital Divide – language, socio-economic class, personal agency, privilege, education level, and more.

*The Rural vs. Urban Divide*
The students who worked with the Whatcom County Library System found that, on average, their patrons were middle aged (forty and above); that these patrons had very limited information technology skills; and few (less diverse) needs for information technology. The students reported that most of these patrons expressed dismay and/or embarrassment for not already knowing how to "...use the computer." Furthermore, several patrons attended the volunteer workshops for an express purpose, such as

setting up an email account or learning how to navigate Google. Students reported having to "slow down" in order to successfully teach these patrons. The skill divide between the college student volunteer and the patron was such that the college student needed to walk through the process step-by-step – sometimes even offering advice on how to use the mouse. Lastly, several patrons did not own a personal computer and wanted to learn how to run and/or manage a business using online tools such as email, social media, and more. This anecdote highlighted the financial repercussions of the Digital Divide, and prompted a great deal of discussion in class. *Note*: Despite being in the same 'position' of Tech Tutor as their Whatcom County Library System counterparts, none of the Bellingham Public Library Tech Tutors, based in downtown Bellingham, WA, reported these types of encounters.

*Age & The Digital Divide*
The students who worked with the Whatcom County Library System and the Bellingham Senior Center discovered that, on average, individuals over sixty-five reported not being convinced about the merits of social media, and/or cultural participation via online means. In their live workshop on the variety of social media, two students reported that they were queried about the relevance of social media in this abrupt question: "Why should I do this?" Upon completion of the workshop, the seniors had an improved understanding of what social media is but were at a loss about how to incorporate it into their daily lives. This precipitated a thorough in class discussion about participation on the Web, and cultural representation thereof.

**Conclusions**:

At the end of the quarter, the LIBR 397 students reported favorable experiences in the anonymous evaluations. Of the eleven students that enrolled, nine students completed the entire quarter. With the benefits of hindsight come knowledge of new changes to the course curriculum and management, which would enhance the holistic experiences of the students and community parnters. First, this course requires a more structured check-in time for students to report how they are working with their community partners. While students didn't overtly complain about a lack of class time in which to arrange group travel plans, such time would be valuable. Furthermore, connecting the coursework with some of the literature around the ACRL Cultural Competencies – which had not been published until mid-quarter of this course (November 2012) – may prove beneficial for a deeper understanding of information issues around the world, particularly with regards to Standards One, Two, and Eleven (Diversity Standards 2012).

Due to the unique nature of the course, LIBR 397 students were able to see firsthand the complexities inherent in the Digital Divide phenomenon. Incorporation of service

learning projects into a college course took additional effort, primarily around planning and communication, but it was an extremely useful strategy for combining practice and theory in an academic setting. Whether librarians offer standalone credit courses, or partner with other faculty to collaborate on a service-learning endeavor, academic libraries (and their personnel) are uniquely equipped to offer students the combined experiences of service learning opportunities that are focused on the theory of information literacy and access.

Furthermore, linking information literacy issues with SL need not be limited to the topic of the Digital Divide. Indeed, the possibilities are endless. For example, a librarian could have prospective students develop SL opportunities around cultural competencies in primary schools libraries (Please see Standard Five of the ACRL Diversity Standards). Or provide students a chance to develop programmatic curriculum for any library (Again, please see Standard Four of the ACRL Diversity Standards). Regardless of any specific focus, the combination of SL theory and principles with information literacy theory is a formidable tool that could result in increased understanding of these complex issues.

## Acknowledgements

## Works Cited

Ball, Mary A. "Practicums and service learning in LIS education." *Journal of Education for Library and Information Science* 49, no. 1 (2008): 70-82.

Barber, Benjamin R. *An Aristocracy of Everyone: The Politics of Education and the Future of America.* New York, NY: Ballantine Books, 1992.

Bennett, Stephen. "Why Young Americans Hate Politics and What We Should Do About It." *PS: Political Science & Politics* 30, no. 1 (1997): 47-53.

Blouin, David D. and Perry, Evelyn M. "Whom Does Service Learning Really Serve? Community-Based Organizations' Perspectives on Service Learning." *Teaching Sociology* 37, no. 2 (2009): 120-135.

Cuban, Sondra, and Elisabeth Hayes. "Perspectives of Five Library and Information Studies Students Involved in Service learning at a Community-Based Literacy Program." *Journal of Library and Information Science Education,* 42 (Spring 2001): 86-95.

Digital Divide. "Bridging the Digital Divide." The Internet Public Library. 2014. http://www.ipl.org/div/digitaldivide/

Eyler, Janet, and Giles, Dwight E. Jr. *Where is the Learning in Service Learning?* San Francisco, CA: Jossey-Bass, 1999.

Heiselt, April K. & Wolverton, Jr., Robert E. "Libraries: Partners in Linking College Students and Their Communities through Service Learning." *Reference & User Services Quarterly* 49, no. 1 (2009): 83-90.

Herther, Nancy K. "Service Learning and Engagement in the Academic Library: Operating out of the Box." *College Research Library News* 69, no. 7 (2008): 386-389.

Hildreth, R.W. "Teaching and Learning Democracy: An Analysis of Undergraduates' Lived Experiences of Political Engagement." *Journal of Political Science Education,* Vol. 2 (2006): 285-302.

Kaplinsky, R. *Globalization, Poverty and Inequality*. Cambridge: Polity Press, 2005.

Lewis, Tammy L. "Service Learning for Social Change? Lessons from a Liberal Arts College." *Teaching Sociology* 32, no. 1 (2004): 94-108.

Meyer, Nedean J., and Ielleen R. Miller. "The Library As Service-Learning Partner: A Win-Win Collaboration with Students and Faculty." College & Undergraduate Libraries 15.4 (2008): 399-413. *Library, Information Science & Technology Abstracts*. Web. 9 April 2014.

Mossberger, Karen. *Digital citizenship: The internet, society, and participation*. Cambridge: MIT Press, 2007.

Multicultural Center. "Briding the Digital Divide Course." University of Rhode Island. 2004. http://web.uri.edu/mcc/bridging-the-digital-divide-course/

Nutefall, Jennifer E. "Why Service Learning is Important to Librarians." *OLA Quarterly* 17.3 (2011): 16-21. *Library, Information Science & Technology Abstracts*. Web. 9 April 2014.

Overall, Patricia Montiel. "The Effect of Service Learning on LIS Students' Understanding Of Diversity Issues Related to Equity of Access." *Journal of Education For Library & Information Science* 51.4 (2010): 251-266.

Racial & Ethnic Diversity Committee of ACRL. "Diversity Standards: Cultural Competency for Academic Libraries." *Association of College & Research Libraries.* 2012.
http://www.ala.org/acrl/standards/diversity

Riddle, John S. "Where's the library in service learning?: Models for engaged library instruction." *Journal of Academic Librarianship* 29, no. 2 (2003): 71-81.

Shelley, Mack, Lisa Thrane, Stuart Shulman, Evette Lang, Sally Beisser, Teresa Larson, and James Mutiti. "Digital Citizenship: Parameters of the Digital Divide." Social Science Computer Review, 22 (2004): 256-269.

Stanford University. "The Digital Divide." *Stanford University, Project*. 2014.
http://cs.stanford.edu/people/eroberts/cs201/projects/digital-divide/start.html

VolunteerMatch.org. "About -- Nonprofits." *VolunteerMatch.org*. 2014.
http://www.volunteermatch.org/nonprofits/

Westney, Lynn C. "Conspicuous by their Absence: Academic Librarians in the Engaged University. *Reference & User Services Quarterly* 45, no. 3 (2006): 200-203.

Westrup, Chris, and Anita Greenhill. "Course Unit – Global Management, People, and the Digital Divide." *University of Manchester, Faculty of Humanities*. 2001.
http://bit.ly/1kUqTma