2011 Annual Conference Abstracts:

Juried Paper Proposals

**Juried Paper Proposals were presented during 13 sessions
at the 2011 ALISE Annual Conference.**

2011 Process Summary

Five representatives from four member institutions comprised the juried paper
proposals review panel. Abstracts of the papers were subjected to a blind review
process in which jurors were assigned five judgments:

1. Relevance to the conference theme.
2. Topic quality, a rating judging the research method or creativity in exploring
the topic.
3. Presentation quality, a rating judging the quality of writing.
4. Significance, a rating of the importance of the topic and/or findings.
5. Final decision for acceptance.
Of 81 unique abstracts, 39 juried paper proposals were accepted for
presentation, resulting in an acceptance rate of approximately 48%.

Using Technology to Prepare LIS Students for an Increasingly Collaborative Workplace

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The workplace is becoming increasingly collaborative, especially with the rise of online social networks for personal and professional use. To remain competitive in this highly collaborative workforce, today's students need to be able to use a range of technologies that support collaborative workplace behaviors (Johnson & Johnson, 2007; Parente et al., 2007). This movement toward an increased use of collaborative technologies is affecting library services in areas such as reference and information services, collection development and maintenance, program provision, curricular support, and more, making support of student collaboration and information sharing especially important in LIS education.

Beyond the practical benefits of teaching LIS students to use collaborative technologies, there are a number of learning benefits. These include advanced critical thinking and problem solving skills, increased domain knowledge, and a better understanding of how people interact in online information environments (Abrams, 2005; Du, Darlington, & Mathews, 2007; Lock & Redmond, 2006; Zach & Agosto, 2009). This paper uses data collected from students in two LIS graduate courses to test the effectiveness of expanding the use of a framework for maximizing student collaboration and knowledge sharing in online courses to face-to-face courses as well. It concludes with a discussion of techniques for promoting the effective use of collaborative technologies within LIS education.

Data Collection and Analysis

Data from two face-to-face courses held in the spring of 2010 were evaluated for this study: Adult Readers Advisory, with 28 students, and Introduction to Research, with a total 51 students enrolled in two course sections. A literature review revealed that a crucial factor in facilitating collaboration and knowledge sharing among students is building a sense of community (Lewis & Abdul-Humid, 2006; Hanna et al., 2000; McIlwraith & McDowell, 2008). With this goal in mind, the instructor required each Adult Readers Advisory student to create a personal blog using either Blogger (www.blogger.com) or Word Press (http://wordpress.org/) and to turn in all course assignments via their blogs. Students were encouraged to follow each others' blogs and to make comments on other students' work, as well as to use the blogs as spaces for collaborative work and information sharing. Introduction to Research students were required to use Zotero (http://www.zotero.org/),

an open source citation manager, to store all citations used for course assignments and to participate in two online group discussions.

Data from the students' blogs and Zotero accounts were aggregated into a database and analyzed according to Zach and Agosto's (2009) framework for maximizing student collaboration and knowledge sharing in online courses. The framework includes three main categories: 1) keys to success in teaching via increased collaboration and knowledge sharing; 2) educational benefits of teaching via increased collaboration and knowledge sharing; and 3) drawbacks to teaching via increased collaboration and knowledge sharing. Each of these categories is further divided into subcategories for facilitating the assessment of collaboration and knowledge sharing.

Results

Overall, the blogs successfully promoted collaboration and community building because students encountered few technical barriers and because the blogging was well-suited to sharing course-related knowledge. Zotero, however, failed in promoting collaboration and community building because of its dramatic technical learning curve, which led to student frustration and lost time.

Blogging about Reading

An important readers' advisory skill is the ability to match one's understanding of published works to a reader's desire for a particular reading experience. The better one is able to identify what readers want, the better one becomes at providing the service. The blogging platform promoted course learning outcomes by enabling students to share their reading experiences and their knowledge of genres, authors, and readers' advisory tools.

Zotero: An Exploration of an Open Source Citation Sharing Tool

Introduction to Research introduces students to the research literacy skills needed to analyze research articles and to the scholarly communication process. Of increasing importance to scholarly communication is the open access movement, which is supported by a diversity of open source applications. Zotero was used to encourage collaboration and exploration of open source technologies for research. A Zotero community was created for each course section, with a folder for each student, enabling students to see what others were reading in support of their research topics. Zotero also supports discussion forums. However, the forums were not well-developed, resulting in much student frustration and many complaints about the technology.

Conclusion

Gunawardena, Weber and Agosto (In press) explained that: "Collaborative teaching and collaborative learning are both means of providing students with early exposure to working in a collaborative paradigm" (n.p.). That "collaborative paradigm" is the modern workplace in general, and library and information service work in particular. As a result, it is important to continue to explore new ways to harness technology to support LIS teaching via collaboration, information sharing, and community building.

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Electronic Portfolios for Program-level Learning Outcomes Assessment

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Full abstract:

This presentation discusses the results of a student and faculty pilot study of the use of an electronic portfolio system to assess student learning outcomes for program-level evaluation While the use of portfolios for student learning and for individual-student or professional evaluation is well-established, using artifacts in portfolios represents a new way to approach program-level assessment.

All academic programs at U.S. colleges and universities are required by various levels of internal and external governing bodies to have effective assessment systems, by which they can determine student learning and draw information for program improvement: to "prove" and "improve" themselves. This is true for regional institution-wide accreditors and for professional program accreditors such as the American Library Association Committee on Accreditation (ALA-COA, 2008).

Program Assessment

Academic programs have always been interested in two important ways of understanding their success: assessment of individual accomplishment on specific tasks (papers, projects, tests recorded in grades) and the success of graduates (employment and subsequent accomplishments). Accrediting agencies now expect programs to become more interested in a middle ground: how the *program* is doing in terms of students' achieving learning outcomes. For example, individual students may pass or fail a general exam. If many fail, there is a program-level problem: an incorrect exam that does not measure what the program aims to produce (deficient measurement), or poor preparation of students (deficient education).

Each library and information science (LIS) program needs to determine its own outcomes for students in a particular program and decide how to collect information about those outcomes for use in program improvement. The process needs to be both valid and feasible.

Program-level assessment rests upon aggregations of data from direct and indirect measures of student learning. Direct measures provide specific, detailed and valid measurements of student knowledge and skills. Coursework incorporates these measures, such as tests, projects, and observed demonstrations (Suskie, 2009). Programs can add additional non-course measures, such as national exams, local comprehensive exams, or capstone presentations. Portfolios can be a combination of these: for each student, they can include course-generated work as well as non-course evidence. They aggregate information outside of individual courses, and thus represent the program and its goals as a whole. This aspect is particularly valuable for library science programs which often provide great flexibility, while still offering "coherent programs of study" (ALA COA: standard IV.4).

Portfolios

Portfolios have been widely adopted for a variety of purposes. There are three main ways to use portfolios—they are not mutually exclusive categories. These are for developmental learning, individual competency assessment, and showcasing. In the developmental type of portfolio, students preserve and reflect upon beginning, intermediate, and mastery-level assignments or accomplishments.   This process of reflection is consistent with a "constructivist" theory of learning in which this intense form of participation reinforces and deepens student learning. Assessment of individuals and their professional competency based upon how they present themselves and their work in portfolios is being widely adopted particularly in pre-service education. A variety of this is the portfolio or dossier used for evaluation of academic faculty (Billings & Kowalski, 2008). Finally, individuals often take advantage of current media to present their work to potential employers, with "showcase" portfolios. For people in creative or technology fields, there is little difference between a portfolio that shows proficiency to meet graduation standards and one that displays their competence to employers.

Portfolios for MLS Program Assessment

The School of Library and Information Science at Indiana University, on its two campuses in Bloomington and Indianapolis, has a set of program learning outcomes for its masters degree program in library science. With the help of an Indianapolis campus grant and using a university-created infrastructure, SLIS-Indianapolis faculty piloted an ePortfolio matrix. During 2009-2010 they collected data from student testers on the ease of use of the ePortfolio and their reactions to it as a method of assessment. In summer 2010, faculty reviewed collected artifacts to examine how they could be evaluated in light of program goals and how the process worked from the faculty and program perspectives. The goal for 2010-2011 will be to establish a working program-wide program-level assessment process.

The IU-SLIS test of using an ePortfolio structure faces important challenges and offers important benefits. It differs from other methods of measuring student learning outcomes. Many programs use standardized exams, capstone or cumulative projects, or final papers or theses as direct measures of student learning; none of these are requirements at Indiana University. It also is different from other methods of using portfolios. There are at present only a scattering of reports on the use of portfolios for program, not student, assessment (e.g. Fitch et al. 2008).

The ePortfolio system has three main benefits. At IU, it is housed within a familiar technology structure suited to a largely non-residential student body. Its flexibility reflects the existing variety in students' chosen program emphases. Finally, it preserves a rich diversity of source information about student learning, providing detailed feedback for program improvement. Evaluating this data is necessarily subjective and qualitative. Compared to objective measures like multiple-choice and specific-answer questions, however, subjective measures can tap more skill and knowledge domains (Suskie p. 33.)

This presentation reports the findings of testing the structure with students: their use of, reactions to, and perceptions of, ePortfolios as measures of their learning and potential aids to reflection on their program as a whole and preparation for job seeking. Qualitative email and in-person interviews were conducted with 40 students who tried the ePortfolio during 2009 to 2010. It then shows how faculty analysis of portfolio materials can take place. The authors welcome discussion of program administrative issues associated with adopting this or any type of assessment structure.

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The Landscape of LIS Curriculum: iSchools versus Other Institutions

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Purpose

The purpose of this study is to investigate the differences and similarities between the iSchools and other institutions in the curricula of their master's programs accredited by the American Library Association (ALA) in the United States and Canada.[1] The idea of the iSchools emerged as a result of the LIS program closures in the 1980's (Wiggins & Sawyer, 2010), and has been fuelled by advances in information and communication technologies (ICT) as well as recent developments of Web 2.0 and social networks. The iSchools was founded in 2005 to "promote an interdisciplinary approach" to advance the information field. Today it includes 21 institutions, of which 15 offer ALA-accredited master's programs. Among the criteria for joining the iSchools are an expected scale of one million dollars in yearly research expenditures, a doctoral program, and a modest membership fee (The iSchools Charter, http://www.ischools.org/site/charter).

In this study, we focus on the courses offered in the ALA-accredited master's programs in the iSchools and other institutions. We have conducted a quantitative content analysis to determine the topic clusters currently covered by these programs. The research question is: Are there any significant differences between the programs in terms of the courses offered by the iSchools and other institutions?

Background

In one of the first studies to map the curricula, Beheshti (1999) used the title and description of courses offered by the ALA- accredited programs to construct topic cluster maps. He measured the intensity of the coverage of topics with the frequency of keyword and term occurrences in the course titles and descriptions. He concluded that while traditional LIS concepts were covered in the accredited programs, many schools were in the process of shifting their curricula to include a wider coverage of technology, followed by topics such as management. Markey (2004) used similar types of data, i.e., course titles and their descriptions, to analyze manually the curriculum of the MLIS programs. Her study showed that the new trend in the programs was to focus on a user-centered approach to information delivery. She cautioned, however, that educators should not rely solely on this approach, as advances in technology may render the intermediary role of librarians obsolete.

Hall (2009) examined the required courses in the ALA accredited MLIS programs, but did not distinguish between the iSchools and other institutions. He focused on the core courses that every student must take, and concluded that while in certain areas like information technology the core courses have evolved to meet the "changing complexities of the information environment", in other areas such as information literacy and copyright issues the programs are not growing quickly enough (p. 66).

iSchools have been studied for different purposes, including anthropological (Seadle & Greifeneder, 2009), disciplinarity of the faculty (Wiggins and Sawyer, 2010), and the research impact (Bar-Ilan, 2010). Few, however, have examined the curriculum of instruction. Lyons (2010) investigated the inclusion of service science courses, while Wildemuth et al. (2009) examined the addition of digital library courses in the iSchool curricula. In this study, we investigate all the courses offered in the ALA-accredited programs in the iSchools and other institutions to determine the topic clusters in LIS education in these programs.

Methodology

Beheshti, Markey, and Hall used the websites of ALA-accredited programs to obtain information about the course titles and their descriptions. Following these researchers' methodology, we downloaded 3686 course titles and their descriptions from 55 programs, of which 15 are offered by the iSchools. Courses such as independent studies and practicum were excluded from the study. The ALISE LIS Research Areas Classification Scheme[2] was adopted to extract subject terms, which were then used to perform content

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[1] Although the ALA accredited programs may use different designations, for the sake of consistency, we use the terms library and information science (LIS) and Master of Library and Information Science (MLIS) hereafter.

[2] (http://www.alise.org/mc/page.do?sitePageId=55727&orgId=ali)

analyses on the course titles and descriptions. One additional class, *Project Management / Information Management* was added to the ALISE classification scheme to represent a new category of courses not adequately classified by the ALISE scheme. Approximately 50 percent of the course titles and 70 percent of course descriptions were classified.

Results

Figure 1 and Figure 2 show the results of the content analyses of the course titles and course descriptions. For comparative analysis the number of courses was normalized for both groups of institutions. The quantitative analyses show a significant difference between the iSchools and other institutions at the top level of ten topics for titles (x^2 = 45.56, *df* = 10, *p* < 0.000), and for the descriptions (x^2 = 88.96, *df* = 10, *p*< 0.000). The disparities between the two types of institutions are ranked based on the significant differences between observed and expected values in the x^2 calculations, and the number of courses offered. The content analyses of the titles and descriptions show a slightly different result, but the top three areas contributing to significant differences remain the same: information systems and retrieval, school libraries, and organization of information.
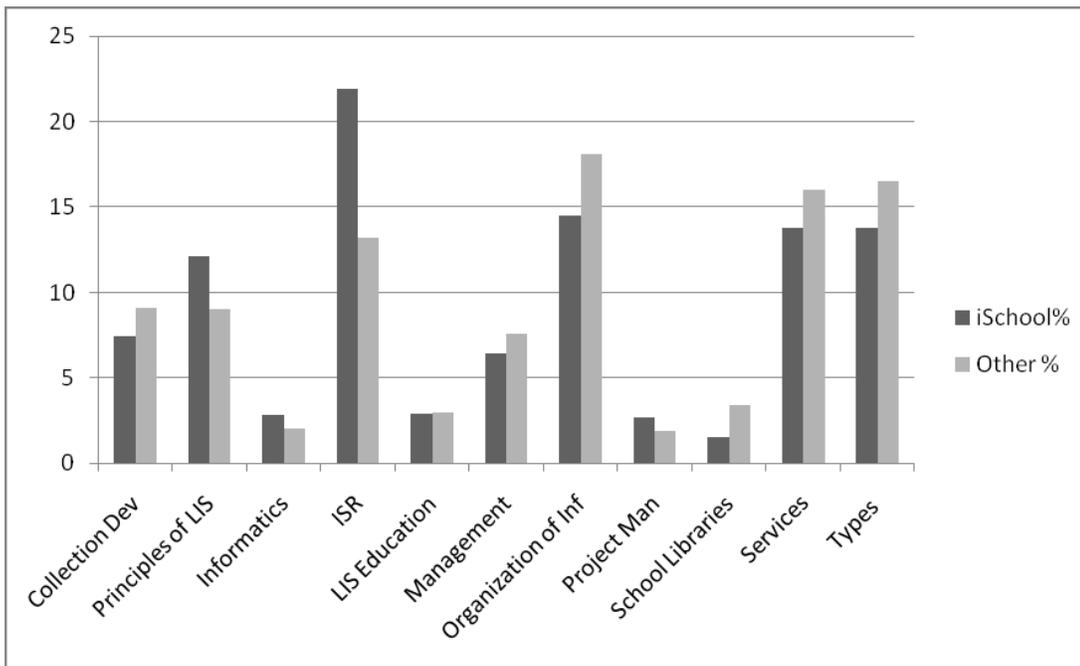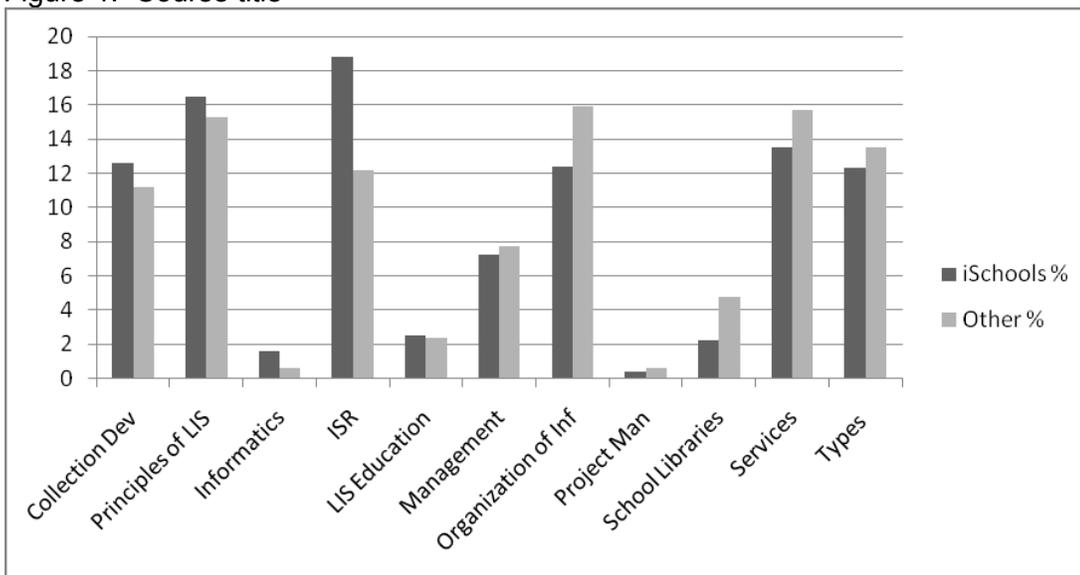

Figure 1. Course title

Figure 2. Course description

Conclusion

In this study, utilizing about 50 percent of the course titles and 70 percent of the course descriptions, and relying on a predefined framework proposed by ALISE, we determined the differences and similarities between the topic clusters offered in the accredited programs of the iSchools and other institutions. Three major topics may differentiate iSchools from other institutions. First, iSchools seem to focus more on information technology and cognate fields. Second, iSchools offer proportionally fewer courses in the area of school librarianship, which is not surprising considering that many non-iSchools offer certified school media specializations. Third, iSchools seem to offer proportionally fewer courses in the topic cluster of organization of information than other institutions. It may be advisable for the iSchools to increase the number of courses offered in organization of information, while other institutions may wish to focus more on technology.

While further research may be needed on content analysis, for instance, utilizing a clustering algorithm, which does not depend on pre-defined categories, the results of the present study may be used as a model for curriculum review and revision in all the ALA accredited programs.

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Innovating Approaches to Archival History: Bureau of Archives and U.S. Colonialism in the Philippines, 1898-1916

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During the first two decades of the United States' colonial rule of the Philippines, a purportedly innovative policy of "benevolent assimilation" was implemented; this policy both demonstrated to the world the United States' capacity for "good government" and provided the islands' natives with a social, political, and economic education that would prepare them for eventual independence. While the more spectacular aspects of this policy centered on education, sanitation, and public works, the less spectacular work of establishing the Bureau of Archives was nevertheless crucial to the United States' successful rule.

 First, this paper considers that episode in United States-Philippine relations as an object lesson in the politics and ethics of competition and innovation. More precisely, by analyzing the establishment of recordkeeping and archival systems in the Philippines between 1898 and 1916 within the context of a larger colonial project, this paper reiterates the obligation of practitioners and educators to remain mindful of the ultimate purpose of new technologies.

 When the U.S. acquired the Philippines at the end of the Spanish-American War in 1898, it also acquired the Spanish Crown's archives on the archipelago. The vagaries of war had resulted in the destruction of many of the colonial government's records, and those that had survived the upheaval were, in many instances, unsatisfactory to the officials of the newly-installed American government. Shortly thereafter, the Bureau of Archives was established to care for the existing Spanish records and house the inactive records of the American government. Over the next twenty years, the bureau became more than just the repository for inactive records of the two colonial regimes. It collaborated with the Bureau of Lands in attempts to register public lands, to settle natives on theretofore uncultivated arable land, and to settle disputes about privately-owned land. During this period, the bureau also managed the government's new system to register cattle brands, trademarks and copyrights, a crucial function in the islands' economic development. In short, the Bureau of Archives was far more than a passive receptacle for the government's unneeded documents; it was part of the undeniably political and ambitious project of American empire.

 Second, this paper, in taking the United States' rule of the Philippines as a "case study," presents an approach to American archival history that takes seriously the "colonial laboratories" in which new methods were tested. Building on the work of Jeannette Bastian and other scholars, this paper provides material with which educators may challenge aspiring archivists to think through the complexity and contradictions of our work.

 Thus, the second part of the paper serves as a launching point for a discussion of how library and information science educators, and archival educators in particular, can advocate for themselves and organize with allied disciplines in the humanities. Beginning from the premise that asking historical questions about the fields of library, information, and archival science—with a foundation in Library and Information Science—can enrich the research of LIS departments, this paper concludes with a discussion of how serious and sustained consideration of the history of archives and archival practice can have meaningful impact on scholarship in related disciplines.

The Rutgers MLIS ePortfolio Project

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Similar in nature to traditional paper portfolios, an eportfolio is defined as "a web-based information management system that uses electronic media and services. The learner builds and maintains a digital repository of artifacts, which they can use to demonstrate competence and reflect on their learning" (Siemens, 2004, paragraph 4). Eportfolios are designed to reflect best work and students' achievements in MLIS programs, as a vehicle to showcase learning, to improve writing, critical thinking and reflection skills, to establish a professional web presence, and to prepare students for professional library positions.

During the Fall 2009 semester a task force was convened within the Rutgers' LIS department to examine the possibility of implementing eportfolios into the current MLIS curriculum. The task force's goal was to investigate the use of eportfolios to document student learning, stimulate reflective learning, serve as a student advising tool, and ultimately as an internal and external assessment tool. The committee defined what was meant by the term eportfolio, discussed how they could be implemented into the curriculum, agreed on the content to be presented to the larger faculty at a future meeting, and put plans in place to move the project forward.

Eportfolios are used for a variety of reasons and in a variety of settings, but four common uses include: 1) Teaching and Learning, 2) Workforce / Professional Development, 3) Assessment and Accountability, and 4) Faculty Tenure and Promotion. The task force's goal was to focus on the use of eportfolios as teaching and learning, and professional development tools. As a learning tool, eportfolios would be used as repositories for students' selected work, work which has been reflected upon and appropriately characterizes and represents their academic progression throughout the MLIS program. The use of eportfolios will also serve as a professional tool, demonstrating content and technical mastery to potential employers when students enter the job market.

Traditional print portfolios have long been used in K-12 education and in various fine art and engineering programs, and they have made their way into use in higher education, in undergraduate and graduate programs (masters and PhD levels), in both on campus and online programs and are growing steadily in implementation and popularity. In addition to enabling students to codify their learning, eportfolios will enable better interactions between students and faculty, as their eportfolios can serve as advising tools. When students engage faculty for course advisement and requests for letters of recommendations, their accomplishments and potential will be in one central location allowing faculty to get to know students on a more personal level and be able to provide more substantive feedback and recommendations.

At its heart, eportfolio creation is about learning by doing, specifically from a constructionist perspective. However, a variety of other learning theories are applicable to the learning that takes place during the eportfolio process. Tapping into the fields of education, psychology and management, learning has two fundamental assumptions: 1) Learning involves two distinct processes, an internal psychological process in which new information is acquired and added to existing knowledge, and an external process where the individual's information acquisition is shaped and influenced by their interactions with their environment; 2) The learning that occurs during these internal and external processes encompasses three socially situated contexts, the cognitive domain of knowledge acquisition, psychological dimensions of emotion and motivation, and the social domains of communication and cooperation. All of these are applicable to the creation of eportfolios; if done correctly, students creating eportfolios will be employing cognitive, emotional, communication and collaborations skills, as they reflect and interact with others (Illeris, 2002).

Another primary component of the educational value of eportfolios is reflection. Reflection is a method by which students critically and thoughtfully contemplate the content they're learning and applying it to their lives and repertoires. In the case of eportfolios, students will hopefully reflect not only on their course assignments in an effort to select their best representative works, but will reflect on the educational experience as a whole,

from start to finish. Ideally, the practice of reflection, which has roots in the works of Schon, Mezirow, Dewey, Kolb and Habermas (Moon, 2004), will develop students as reflective practitioners and provide a sense of purpose to learning, promote awareness, self empowerment, self improvement and emancipation.

Perhaps the least straightforward and complicated dimension of eportfolios is their potential use as assessment tools in higher education, although the literature indicates that it's a burgeoning and necessary trend of action (Applegate, 2006; Lorenzo & Ittelson, 2005; Ruben, 2007; Klenowski, Askew, Carnell, 2006; Latrobe & Lester, 2000; Diller & Phelps, 2008; Seldin & Miller, 2009). The literature is beginning to document the results of eportfolio usage, through the use of rubrics and data aggregations; such results are drawn from the literature in LIS, information literacy, organizational communication, instructional technology and design, and higher education administration literature, and right now are presenting case studies and content analyses to demonstrate the use of eportfolios in graduate education.

The literature agrees that assessment of learning outcomes is imperative and will be an important demonstration and requirement for programs facing accreditation from the American Library Association (ALA) and The **Middle States** Commission on Higher Education.   Both ALA and Middle States issued specific standards for student learning and curriculum, and assessment of these outcomes is an important issue. Of the 62 ALA accredited MLIS programs, 22 (or 35%) of them have portfolios as part of their curriculum / graduation requirements.[3] Eportfolios are not only an important educational tool, they are a potential means of capturing a program's efforts and effectiveness in student learning.

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[3] 9 of those 22 have the requirement in the school library portion of their programs and 6 of the schools are iSchools.

Lester J. Cappon and Archival Education: An Exploration in Archival Working Memory

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Paper Abstract: Lester J. Cappon (1900-1981) holds an important position in the development of formal education programs for archivists, manuscripts curators, and documentary editors. Graduating with a doctorate in history from Harvard University in 1928, Cappon initially worked with Dumas Malone at the University of Virginia in preparing reference works on historical sources. Soon he became the university archivist, before moving on to the Institute of Early American History and Culture and the Colonial Williamsburg Foundation in 1945 where he became a leader in scholarly publishing, archival work, and documentary editing.

 Cappon devoted a considerable part of his career to teaching, and he used teaching as a means of promoting professional agendas and for supporting his own scholarship, including wrestling with his own professional identity issues. He ran a pioneering Radcliffe Institute on historical administration, with a focus on archival studies, from 1955 to 1960, one of the first multi-week seminars in this area before graduate programs were established. His major failure was his inability to get his book on historical manuscripts, developed as part of his Radcliffe seminar and based on his other teaching, published (although his commentary in his diary and personal papers about this never completed book is extremely revealing about the nature of archival education, research, and practice).

 Cappon throughout his career was a firm advocate for strong academic preparation, and he was opposed to anything resembling credentialism. He wanted archivists to be grounded in history, and he desired historians to be knowledgeable about archives and other documentary sources – and he took every opportunity to push these agendas. Cappon also extended his notion of teaching to writing about topics in the archival profession, urging archivists to be more active and productive scholars, as well as generally accepting offers to deal with controversial topics at professional conferences.

 Examining Cappon's career, especially his work in the 1950s through the 1970s, is a kind of cautionary tale about what happens when a profession seeks a higher disciplinary status but lacks a home within the university. Today, we have a number of robust archives programs, with multiple faculty specialists and doctoral students. within both history departments and LIS and I-Schools, not long after many archivists had given up on the prospects for such education and the contentious debates about whether such education ought to be in history or LIS programs. Cappon died just as Frank G. **Burke**, "The **Future** Course of **Archival Theory** in the United States," *American Archivist* 44 (Winter 1981): 40-46, arguing, with some skepticism, for the need for full-time regular faculty in archival studies, was being published (indeed, Cappon's last essay, published posthumously in 1982, was a response to Burke). Cappon's death and Burke's essay represent a critical benchmark in the development of graduate archival education.

 The archival profession and LIS community lack, with delicious irony, a strong working memory of the evolution of its own graduate education. When I proposed editing a book of Cappon's seminal writings on archival matters (published in 2004) to the Society of American Archivists Publications Committee, there was little recognition of who Cappon was despite his having been President of the Society just a generation before (1957). More recently, attending the Archival Education Research Institute, a conference bringing together fifty doctoral students and thirty archives faculty, I discovered that the present generation of archives doctoral students have little understanding of what has happened in graduate archival education in the past half-century. Examining a figure like Cappon enables us to build a better foundation in comprehending our own history. The present lack of knowledge about Cappon is at least partly due to his failure to publish a substantial book, either scholarly monograph or practice-focused manual, on archival studies.

 This proposal responds to the call by ALISE for "historical perspectives on competition and innovation in library and information science/ education for the LIS-archival studies-museum studies professional." The paper builds a long-term study of Lester J. Cappon, starting with my *Lester J. Cappon and the Relationship of History, Archives, and Scholarship in the Golden Age of Archival Theory* (Chicago: Society of American Archivists, 2004) and continuing with a new book in preparation, tentatively entitled "Pioneer Public Historian:

Lester J. Cappon." The paper is based on extensive research in Cappon's personal papers, especially his detailed twenty-eight volume diary.

Enhancing the Competitiveness of Rural Libraries in West Texas: A Community Outreach Approach

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Rural libraries are experiencing an increase in demand for resources and services. This paper explores how rural libraries from West Texas enhance professional competitiveness after creating and implementing individualized community outreach plans. A web-based resource center will be built to foster virtual communities and social networking interactions among rural librarians.

Introduction
According to US official report, eighty-four percent of land in the United States is rural with twenty-five percent of the total population living in rural areas (United States Department of Agriculture, 1995). Urbanization attracts young people to the metropolis to find better jobs, while at the same time, some city dwellers move to rural areas to enjoy retirement life. Rural libraries are experiencing an increase in demand for resources from social and civic service organizations that are attempting to meet the needs of their clients. Rural unemployed and migrant citizens also use libraries as a place they can turn to for help and resources. At the same time demand for service has increased, rural libraries are dealing with declining tax bases, lack of an educated workforce, decreasing funding, and an aging population (Senkevitch and Wolfram, 1994; Amberg, 2010).
In a majority of small rural areas, the library is underappreciated as a community asset. It is not unusual for the staff of the library to consist of one paid full time person or a paid part time person and one or more volunteers. Rural librarians are lack of social and professional assistance to seek support from communities. There is a strong need for libraries to take a leadership role in creating effective partnerships with local organizations, government agencies and social institutions in order to meet the demands of the range of library users they serve.
In this study, a "rural library" is defined as the one that serves a community of 25,000 or less and outside a metropolis area. This project seeks the answers to the following questions:
> To what extend will rural libraries increase professional competitiveness after creating and implementing individualized community outreach plans?
> To what extend can a web based resource center foster virtual communities and social networking interactions among rural librarians?

Previous Studies
Studies suggest challenges of library services in rural libraries are similar. Low population density means low local government support and limited professional development prospects for library staff. Amberg (2010) suggested the strategy is to engage in local communities, market library services, and develop partnership with other agencies.
Lower tax bases limit the financial ability that rural libraries can afford to employ high quality of librarians. Flatley and Wyman (2009) found 78% of rural librarians hold a degree of bachelor or under in 2007, slightly lower than 84% in 2000. Without enough professional trainings, rural library staff can be less competent than their city counterparts in identifying information needs of rural residents (Senkevitch and Wolfram, 1994) At the same time, factors such as distance to metropolis, travelling times, and geographic isolation are likely constraints to retain high quality librarians in rural areas (Haines and Calvert, 2009; Lee, 2009).
Today ninety-two percent of librarians use the Internet to answer reference questions; however most of the staff had received no training on providing reference services within the past five years (Standerfer, 2006). Library consortiums and regional conferences are effective ways to connect rural libraries, particularly on automation and technology consulting (Lee, 2009, p. 184), however, cost of travel time and payment to substitute may hinder librarians to fully benefit from this formal professional training.

Method
Rural libraries in west Texas will participate in this experimental research beginning Fall, 2010. Each year librarians from 35 libraries will formulate a cohort for a total of 105 libraries in three years. The libraries serve

communities with population 25,000 and under from four regional library systems: The North Texas Regional Library System headquartered in Fort Worth, TX, the Big Country Library System headquartered in Abilene, TX, the Texas Panhandle Library System headquartered in Amarillo, TX, and the West Texas Library System headquartered in Lubbock, TX.

The development of a peer group and virtual community among participating librarians will be accomplished by the creation of a rural library resource center. The resource center website will have social networking components such as wikis and blogs for the librarians to use and form virtual communities. The resource center website will be assessed to see whether it helps each participant to further develop their understanding of and expertise in using their community outreach plans.

The dependent variable is the change of confidence level on librarians with community outreach, and the independent variable is their engagement with peer groups and virtual communities. Pearson's correlation coefficient will be calculated to estimate how the program facilitates the community outreach by rural librarians in this study.

Preliminary Data

Twenty-one rural librarians participated in the first orientation sessions of this study in September, 2010, representing twenty-two rural libraries (one of the librarians serves two libraries). Among them nineteen were library directors or librarians, two were assistant director or director's assistant. The average years of library experience was nine and half years. Three of them had master's degree in library science, one in education, and eighteen of them had bachelors or associate degrees. Most of them reported that they rarely used Web 2.0 tools such as Wiki, Skype, and Blogs, and most of them suggested that most needed outreach programs in rural libraries are related to English as Second Language (ESL) and reading literacy.

Conclusions

Current technologies might provide viable solutions to break the barrier of geographical isolation of rural libraries. This project focuses on rural library staff's knowledge, skills, and/or confidence in developing and maintaining community outreach plans as well as the community partnerships on their own. It is expected that online teaching and learning techniques, virtual communities, and Web 2.0 applications will likely to connect the rural libraries together and increase their professional competencies.

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Long-term development of a learner-led infrastructure for an information organization course

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Abstract
This paper analyzes the development of an a/synchronous e-learning environment to foster knowledge co-creation within an information organization course, taking a critical approach to the pedagogy, environment, and materials.

Introduction
In almost any discipline or profession there is some essential part of the knowledge base that even enthusiastic learners will find boring, and that even motivated students will be reluctant to pursue deeply on their own. Creating a successful learner-led education environment for such material requires an instructor who understands—and is passionate about—the subject matter *and* the knowledge construction processes associated with it. Moving this learner-led environment into an online, hybrid, mobile, or ubiquitous learning mode also requires an instructor who understands the ways technologies affect and are affected by interactions between learner and material, among co-learners, and between learners and instructor –- in good and bad ways.

Learning context and content
Understanding any arguments about e-learning requires a description of the context in which they were developed. Many factors are important; some that will be addressed in this paper are synchronicity, interactivity, technology, and online vs. hybrid. This online learning context is also important because it shapes what students perceive to be "normal" in a school or program. While the e-learning environment shapes many instructional techniques, others are open to faculty innovation, and student performance and evaluations can be influenced by how "normal" a course is within its program.
Similarly, understanding arguments about e-learning requires some understanding of the content being learned. Of particular concern in this paper are the pedagogical implications of teaching required classes when compared with elective courses (Epstein, 1987; Kelly, 2000). When teaching required courses, it is sometimes difficult to get the students to engage in learner-led inquiry because there tends to be more resistance to, or lack of interest in, the course material (not universally, but more than in elective courses). The difficulty in engaging students is exacerbated when the course material is perceived to be difficult. Although empirical research demonstrating this within LIS is slim, there is a cultural zeitgeist in LIS suggesting that required information organization courses often fall into the "perceived as uninteresting and difficult" group.

Research methods
This paper takes an autoethnographic / personal narrative approach (Burdell & Swadener, 1999) to exploring critically the development of an a/synchronous (combined asynchronous and synchronous) e-learning environment to foster deep exploration and knowledge co-creation within a required LIS master's degree course on information organization. The paper provides an analysis that goes beyond a description of "how I teach my course" and takes a critical approach to the pedagogy, learning environments, and learner-co-produced materials and knowledge. The analysis uses as its primary data sources 12 evolving versions of the course syllabus from 2002 through 2010, 11 anonymous course evaluations including scaled and open-ended items, and the

instructor's reflections (Brookfield, 1995), to examine the combination of the following:
• student evaluation data (how evaluations reflect course construction and delivery, how they are used to inform subsequent course revisions, and how those revisions are evaluated by students)
• observations and reflections by the instructor of course outcomes and processes
• all iterations of the course syllabus
• ever-changing technology imposed by the university (including the learning management system and support for interaction via text, audio, and/or video)
• ever-changing technology selected by the instructor (choices within and outside the options sanctioned by the university)
• technology selected by, or available to, the students
• technological environments in which the students live (home, work, mobile, other)
• increasing comfort and experience of the instructor over the 9 years of course evolution
• changes in the textbook(s) used in the course
• ongoing commitment by the instructor to inquiry based, learner-led, constructive learning
The paper explores how the combination of these things has resulted in a tightly-integrated course design that, each semester, forms a largely-invisible infrastructure (per Star & Ruhleder, 1996) or scaffold (per Vygotsky, 1978) upon which the learners together produce and use knowledge iteratively (the combination of production and use is reflected in existing research narratives of "produsage" and "prosumption," and the full paper will include this literature). Throughout this process of knowledge production and use, the learners develop a network of social/functional ties between themselves and the knowledge, artifacts, and questions they use and develop. Those ties become part of the professional knowledge of the students and help to inform subsequent iterations of the course.

Findings: important factors
Preliminary evaluation of the data (listed above) indicates that important factors in the successful development over time of this scaffolded information organization class are as follows, organized into three categories.
Student confidence:

• Students feel confident and empowered by having co-created their knowledge and applied it together in "real world" technological and institutional settings
• Students were more confident experimenting with the **content** when they could rely on the **structure** of the class explicitly creating and following a set of norms
• Students appreciated the instructor's knowledge of the subject and having it to fall back on made them more confident in their own explorations into unfamiliar domains
Instructor inputs:
• Students strongly appreciated the flexibility afforded by the learning environment (a combination of available technologies and the instructor's flexibility) in allowing them to choose which media to use to contribute (text or voice; synchronous or asynchronous)
• Key to student success was the willingness of the instructor to engage in knowledge coproduction one-on-one with students (class size ranged from 25 to 58 students) through fast, detailed, iterative feedback on their knowledge performances
• Students frankly acknowledged and were demotivated by the inherent boringness and difficulty of the material in this course
• The instructor's personal enthusiasm and passion for the subject matter encouraged students to find it more interesting
Course evolution over time:
• Students strongly appreciate knowing (because they were told at the **beginning** of the semester, and again when they were completing course evaluations at the **end** of the semester) that course evaluations are used to make specific improvements to the course
• Reflectively incorporating student suggestions into subsequent iterations of the course led to direct and explicit improvement in course evaluations and student and instructor satisfaction

• The instructor's commitment to learner-led co-production of knowledge led directly to ongoing (although decreasing over time in amount and severity) "**negative**"1 student feedback with respect to description of assignments, expression of expectations, communication of ideas, and facilitation of learning (i.e., the exact factors that would be expected to suffer in this pedagogical model which requires learners to take the lead)
These factors, and their further explication in the full paper, will be of help to all LIS educators who are working toward a learner-led or otherwise constructivist model, especially one that includes online or hybrid learning environments and incorporates "real world" technologies and projects. The implications for course design and working with learners to create knowledge are not, as seen from the list above, restricted to courses in information organization. An additional goal of this paper is to encourage LIS educators to examine the pedagogical challenges associated with teaching required courses.

Competitiveness and innovation
1 *The idea of "negative" should not be overemphasized here. Of the individual course evaluations analyzed, ≥90% of students rated the instructor as "1=excellent" (the highest rating on a 5-point scale) six times. Examining all 11 available course evaluations, the total number of ANY scaled items rated 3, 4 or 5 (Good, Fair, or Poor) was less than 3%, and most of those ratings were on the four factors identified in the text. ALL other scaled items for this nstructor for all semesters were rated 1=Excellent or 2=Very Good.*
The paper proposed here is a good fit with the 2011 ALISE Annual Conference theme of "competitiveness and innovation," especially when we think about how collaboration leads to competitiveness in the sense of being extremely well qualified. Asking students to collaborate as learners, rather than fostering an environment of competition within the class, makes them competitive in a professional world where collaboration is important for success. By analyzing a long-term trajectory of innovation by an **instructor**, the paper also shows how students can be encouraged to learn more—and be more enthusiastic about learning—when the structure of the course also encourages the **students** to innovate.

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***Environmental Influences on Democracy: its Representation
on Web Interface Design***

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A country's democracy level is represented on Web interface design (Li,
2010). Wittfogel's (1957) Eastern autocracy states that two environmental
dimensions – rainfall and sea borders influence the origin of democracy. This
study is designed to examine if Wittfogel's theory is represented on Web
interface design. It investigates if a correlation exists between a country's
democracy level represented on Web interface and the country's level of rainfall
and its measure of sea borders. 156 college/university Web sites selected from 39
countries were coded and will be examined systematically in a multivariate
analysis. By examining Wittfogel's theory of hydraulic civilization on Web
interface design, this study will not only extend his sociological perspective to
information science arena, but also provide us with a better understanding of the
functionality of Internet in information dissemination and its cultural and
sociological aspects.

Democracy and Environmental Influence
Among the few theorists who examined the rise of ancient autocratic
empires, Wittfogel (1957) offered a general view of environmental influences on
the rise of Eastern autocracy. He states that rainfall is an important
environmental impact on democracy. Since in dry regions where rainfall is rare,
irrigation is required for hydraulic civilization. Thus, "demonstrative and total
submission is the only prudent response to total power. Manifestly, such
behavior does not gain a superior's respect; but other ways of proceeding invite
disaster. Where power is polarized, as it is in hydraulic society, human relations
are equally polarized" (p. 154). Secondly, centralized distribution systems are
necessary in dry regions for water and food distribution. This can give rise to a
more despotic regime. Furthermore, the scarce of rainfall contributes to the
inability to escape from a despotic authority.
Another dimension, sea borders, emerges as one of the influential
elements on democracy in examining the effects of war on democracy. Midlarsky
(1995), in his empirical study, speculates that land borders increase the threat of
war, which leads to the need of military training and autocratic leadership.
However, Wittfogel's theory does not limit to ancient civilizations.
Spanish dictator, Primo de Rivera used hydraulic projects in the 1920s to
generate maximum publicity (Malefakis, 1970).
The Representation of Democracy in Web Interface Design
Hofstede (2001) identified *power distance* (the mental relationship between
the subordinator and the superior) as one of his five cultural dimensions to
evaluate cultural differences. As computer-based communication has taken its
lead in global information exchange, Marcus and Gould (2000) extended
Hofstede's cultural theory to Web interface design by identifying cultural
indicators in Web interface design for each of Hofstede's five cultural
dimensions. Later on, Li (2009), in her pilot study, validated the ten *power
distance* indicators identified by Marcus and Gould. It established a measurement
for determining a country's democracy level represented on Web content and
interface design. She concluded in her later study (2010) that Web interface
design correlates with a country's democracy level and government-based Web
sites embody more of a nation's authority and supremacy than business-oriented

Web sites do.

This paper will serve as a further investigation on the representation of democracy in Web interface design. It will integrate Wittfogel's hydraulic civilization theory to the examination of democracy on Web interface design. The two environmental variables, rainfall and sea borders, will be analyzed to find out if Web interface design reflects Wittfogel's hydraulic civilization theory.

Research Design:

This study focuses on the following two research questions:
1. Do a country's level of rainfall and its measure of sea borders correlate with its democracy level?
2. Does Wittfogel's hydraulic civilization theory reflect on Web interface design?

The independent variables for this research are rainfall and sea borders. Average rainfall is measured by the annual average experienced by the city where the college/university is situated and the country's capital (McCoy, 2003). Data on sea borders are collected from CIA Web site (Central Intelligence Agency, 2010).

The dependent variable is the Web representation of democracy level. It is the sum of the scores derived from content analysis on each Web site for seven *power distance* indicators, which have been verified in Li's study (2009) as the indicators for a country's democracy level. They are:
1. Symmetric layout
2. Special title conferred on members of the organization
3. Monumental building
4. Authority figure
5. Symbol of nationalism or religion
6. Link to information about the leaders of the organization
7. Information arranged according to the management hierarchy

This study will use data collected in Li's study (2009) from 156 college/university websites selected from 39 countries based on the list of *Freedom in the World: Independent Countries 2007*. Each country is classified by the status of "Free," "Partly Free," or "Not Free" and by 13 freedom levels. Three countries were randomly selected from each of the 13 freedom levels. Four college/university Web sites were selected from each country based on Yahoo! and Google country directory search.

Seven *Power Distance* indicators were evaluated on each Web site from "Not presented" to "Presented to the most extent" on a 0 to 4 scale by two coders. One-way ANOVA will perform data analysis for each independent variable to find out if the means of the three freedom groups differ statistically. Post Hoc multiple comparisons will be applied to examine the location of these differences. Moreover, Pearson correlation coefficient will be applied to verify that the dependent variable and independent variables correlate with each other. The level of significance will be set as $p < .05$.

Implications:

The environmental influence on democracy has been the center of research and debate in the fields of sociology and anthropology. As the Internet has become the new medium for information gathering and dissemination, cultural dimensions inevitably become represented in Web interface design. This study, by linking Wittfogel's hydraulic civilization theory to Web interface design, will bring traditional research in sociology and anthropology into a new research field and thus bridge the gap between social science research and information science research.

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Text A Librarian: Delivering Reference Service via Texting

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Introduction

Today's technology offers new ways for librarians and users to interact. Tapping into this new technology enables libraries to pool their resources, expanding their ability to meet user needs during difficult economic times. One such technology is growing increasingly popular as a communication venue – text messaging, or the exchange of text messages on mobile phones. These messages can comprise of words or numbers or alphanumeric combination. Each message is up to 160 characters in length when Latin alphabets are used, and 70 characters in length when non-Latin alphabets are used. Texting is becoming a popular communication venue in the United States and around the world. A Pew research study (Pew Internet, 2008) indicates that 62% of all Americans are part of a wireless, mobile population that participates in digital activities away from home or work. The rapid growth in cell phone ownership in the past few years further demonstrates the popularity of mobile technology – the Pew Internet & American Life Project (Pew Internet, 2009a) shows that 85% of all adults had a cell phone or other mobile device by April 2009; for teenagers ages 12-17, the same percentage increases from 45% in 2004 to 71% in early 2008. In addition the astounding expansion of cell phone ownership among teens, the mobile world has witnessed a growing trend in their use of texting (Pew Internet, 2009b), both in overall likelihood and in frequency of use. In 2006, 51% of all teens, regardless of cell phone ownership, had ever sent a text message, while 58% had done so by 2008. Similarly, daily use of text messaging also increased, from 27% using text messaging daily in 2006 to 38% in 2008.

Indisputably, texting has become a significant avenue for communication and social activities in people's daily lives. Its growing popularity has drawn attention from the library community and a handful of libraries have started adopting it as a medium to offer reference service. Texting-based reference service, or text reference in short, is defined as reference service provided via the exchange of text messages on mobile phones. To use the service, library users send their questions as text messages to a phone number and receive answers in the same format. Librarians usually use a computer application such as email to receive questions from the users and send back answers.

However, due to the emerging nature of texting as a means for reference service, the literature mainly consists of news reports about a particular library beginning to offer text reference service (Altarama, 2009; Kohl & Keating, 2009). The only empirical study was a simple survey of six academic libraries' text reference services, examining their software, costs, staffing, hours of operation, service life, and use (Profit, 2008). As more and more libraries are joining the bandwagon of text reference, in-depth research is needed to thoroughly evaluate text reference service to help the library world better understand the affordance of the service medium and how to best deliver text reference service to fulfill library users' information needs. This study will investigate how library users are using text reference service in their information seeking process. The research question the study seeks to answer is: what information needs are fulfilled by text reference service?

Methodology

The study will be conducted in the context of InfoQuest, the first collaborative text reference service in the country. InfoQuest was launched in July 20th 2009, and offers service from 8 am to 10 pm Monday through Friday, 9 am to 5 pm Saturday, and 12 pm to 5 pm Sunday. It uses Altarama SMS Reference as the gateway software to redirect questions texted by users to a Gmail account, where librarians read questions and compose answers. InfoQuest was initiated by the Alliance Library System in Illinois and has 64 participants from all over the country, including 29 academic libraries, 20 public libraries, 9 volunteering individuals, 4 regional library organizations, and 2 school libraries.

The systematic random sampling method will be used to select a sample of transcripts for analysis. Then the selected transcripts will be analyzed for the following information:

- Length of transaction.

- Question types. Katz's (2001) reference question types will be used as the coding scheme for the analysis.

- Quality of answer. Measures will include completeness, correctness, sources cited, response time, tones and attitudes.

- Reference interview. Different aspects of the reference interview discussed in Kaske and Arnold (2002) will be included in the coding scheme.

The transcript analysis will produce a comprehensive picture of text reference practice and enable an in-depth understanding of this service. Results of this analysis will help identify the information needs fulfilled by text reference service, determine the unique characteristics of text messaging as a reference environment, and eventually, develop best practices guidelines for text reference service.

Significance
Texting is becoming a more and more popular communication tool and its value as a library service platform has been recognized by more and more libraries. However, library adoption of texting in service delivery is still at its infancy, and a systematic and thorough examination of this service venue is needed to develop a solid professional understanding of how to most effectively use texting to provide services to library users. Findings from the study will help libraries grasp the unique characteristics of texting and understand how to best use this venue to answer reference questions.

The theme of the conference is "Competitiveness and Innovation", and libraries using texting to deliver reference service is a strong embodiment of being innovative in serving library users. The author wishes to share results of the study with the community of LIS researchers and practitioners at ALISE '2011.

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Archival Representation in the Digital Environment: The Relevance of the Principle of Original Order

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Final Abstract

The principle of original order is a traditional archival theory adopted by archivists to arrange and describe archival materials for over a century. The principle states that archival records should be maintained in the order they are accumulated in the course of creation and use to preserve the original context and accessibility of records. Like some other traditional information organization theories, the archival principle of original order has been traditionally associated with the physical arrangement of paper records. Whether the principle of original order can be adapted for digital archives has remained an open question in the archival community for the past two decades. This paper draws on a recent study of the issue to discuss how archivists can be innovative in representing digital archives for access and stay competitive in the digital era.

This paper reports on a research that investigates whether the concept of original order continues to be a guiding principle for the organization and description of digital archival collections. The study focuses on whether and how archivists apply the principle of original order to the organization and representation of digital archival collections. Three research questions are to be addressed in the study: How is original order defined in digital environments? What value does original order contribute to digital archives? What role does original order play in digital archival representation?

The research method used in this study is a multiple case study design. Three digital archival projects have been selected as study cases. The cases are located in England, Canada, and USA, and cover private, subject-based archives as well as public archives at both national and state levels. Data have been collected from project documentation and onsite interviews. The study uses a three-step data coding process to provide descriptive, interpretative, and pattern codes to analyze data drawn from transcriptions and system/project documentation. The coded data have been analyzed and presented at three levels (within-case analysis, cross-case analysis, and the process of theorizing) to address research questions. Findings of the study are summarized as follows:

Original Order in Digital Archives: Definitions
- There is no single definition of original order in digital archives due to multiple electronic recordkeeping environments.
- In spite of a general assertion that records, if created and stored digitally, are interconnected and share multiple logical relationships, some electronic records that find their way to the archives are tied to one fixed order and are organized linearly like their paper counterparts.
- In circumstances where there is no perceivable fixed order among records, archivists may succeed in preserving original order to the extent of the order of context rather than the order of documents.
- Relationships among electronic records are defined logically at the item level rather than collectively at the aggregation level, which has pushed the archival expression of original order down to the item level. The archival control of item-level metadata may transform what archivists do and how and why they do their work.

Original Order in Digital Archives: Purposes
- The value of archival records will decrease if they are not preserved with their context as evidence of original creation and use. In digital archives, the organization of records at the lower level becomes better contextualized when associated with the higher-level description.

- Original order expressed in archival hierarchical representation continues to be an important tool to gain access to archival records as evidence of original creation and use. The introduction of item-level metadata in digital archives opens the door to direct access to information in digital archival records.
- Digital preservation management cannot take place at the aggregate levels because digital objects require item-level control. The item-centric methodology in digital preservation has contributed to the shift of the archival control of original order from the file level down to the item level.
- Original order in the form of file structure and record metadata plays an important role in digital archival appraisal, acquisition, and processing. Creator-generated record metadata automatically mapped into the digital archival system makes automated archival processing possible at the item and/or file level.

Original Order in Digital Archives: Representations
- Digital archival representation of original order is a multi-layer process in which original order has been created, identified, transferred, verified, normalized, processed, preserved, and finally incorporated into the archival representation system.
- There are two-level representations in digital archives. Higher level description (i.e., provenance and series levels) is supplied manually by archivists, and lower-level metadata (i.e., item and file levels) generated by records creators can be automatically mapped to the digital preservation system and linked to the archival representation system.
- Digital archival material can be discovered through a multi-level discovery system which may incorporate federated search function, archival search interface, item-level metadata search, and (possibly) full text search. The integration of item-level metadata into traditional archival representation will increase the chance of discovery for digital material in a multi-level discovery system.
- A mega series can be formed when electronic records are generated from similar business processes with consistent metadata established by multiple creating agencies to manage and access their records. The emergence of mega series may expand the definition of archival series in digital environments and establish a new representation model to enhance discovery in digital archives.

The study demonstrates that archivists have adapted the principle of original order to embrace the new features of electronic records to enhance the organization and representation of digital archives. The innovative approaches have expanded the definition of original order to item-level metadata, added the value of original order to records disposition and digital preservation, and introduced new representation models to achieve more flexible and granular discovery of information preserved in digital archival collections. The findings of this study have demonstrated the need for the archival community to be agile and innovative in order to stay competitive and relevant in the changing digital information environment.

LIS Education: Preparation for Ethical Decision Making and Organizational Competitiveness

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Abstract

In organizations of all types, managers are faced with a range of decisions, from the routine to the unusual and complex. Among the more challenging decision making circumstances are those with dimensions of ethics and intentional consciousness. While the research has addressed the lack of simplicity in choosing between what's right and what's wrong, the research also indicates that, in many cases, ethical decision making can be counterintuitive and that there are factors, based on competition and the perceptions of the widespread use of unethical practices by others, which increase motivation for individuals to engage in unethical behavior. (Callahan, 2004) However, the research also indicates that organizational success, or competitiveness, measured in various ways, is strongly correlated with ethical practice ("Is Ethics Good Business?" 2003, pp. 6–21) and tied closely to the ability to recruit top talent. (Graduates Drawn, 2002) Teaching faculty have acknowledged the need to ensure that academic curricula reflects the importance of preparing graduates, particularly graduates in fields, supported by professional education, for the complexity of the roles that they will face, with the range of ethical dilemmas and pressures. (Hutchison, 2002; Schneider and Sager, 2004) It has been noted that "In service professions such as LIS, ethical practice becomes even more significant as the individuals who receive service – customers or patrons – rely on the practitioner's judgment and reflective professional practice." (Winston and Bahnaman, 2008, p. 222) To a large extent, the research on decision making addresses the assumptions decision makers may apply to optimize the effectiveness of actions. The complexity of libraries, for example, in the 21st century means that the leaders of these complex organizations face a range of decisions regarding resources, personnel, facilities, technology, governance, users, and competition, among other issues. While some of the decisions are recurring, others arise at certain times, such as in relation to a fiscal downturn or an even more immediate crisis. In all of these instances, the decision maker must keep the library's purpose and vision in mind. The process of making informed, appropriate decisions, amidst competing priorities, and decisions that can be defended represents a constant challenge.
Reasoning and rationality do not imply "automatic" decision making; they entail the full range of data collection and analysis, interpretation (including possible interpretations by those other than the library leader), and weighing the implications of each decision for the other aspects of the organization.

Research regarding the role and challenge of professional education indicates that professional competence requires that an individual possess the ability to put the pieces together and apply the whole of what has been learned in practice. To accomplish this goal, professional education must include attitudinal and behavioral objectives, focus on process, emphasize the application of theory to practice, and prepare individuals to apply critical judgment in complex situations. (Delaney, 1997, p. 243)

Thus, for our purposes, we must emphasize that we begin with the premise that decision making is an intentional act of consciousness. John Searle's analysis of the definition of intentionality indicates that it is "that feature of certain mental states and events that consists in their (in a special sense of these words) being *directed at*, being *about*, being *of*, or *representing* certain other entities and states of affairs" (2002, p. 77). So intentionality is more than "meaning to do" something; it signifies a connection between our minds and the world around us. In fact, the connection is embedded in our being. Philosophers claim that each of us has a background that is shaped by our beliefs, educational, family, physical characteristics, and social milieu that is at least somewhat unique to each of us. The background is even more extensive, though, and we can add ideas, propositions, values, and fitting into a community.

In considering the decision making process as "intentional" and "conscious," Klein's research (2009) provides the basis for the study of LIS professionals and students. Klein provides a mechanism for assessing the effects of prevailing management thought on the consciousness of all decision makers. In his work he tests claims and assumptions that are frequently associated with the background of decision making. He (2009) writes, "I have identified ten [actually eleven] typical claims about how to think more effectively. In ambiguous and shadowy situations, I believe the claims are misleading" (p. 7). The claims actually represent assumptions that, Klein says, are widely held and taught. According to research that he and others have conducted, people tend to agree with the claims. However, the evidence and analysis suggest strongly that, when the complexities of organizational action are such that many factors can influence the future, the claims do not hold up. As the study of decision making assumptions has not been considered in the context of library and information services, the purpose of this inquiry is to investigate the strength of agreement with the claims in our profession. The applicability of the claims and Klein's critique will be assessed by measuring the perceptions of public and academic librarians. Klein's claims will form the basis of a survey. The results will be compared across environments (public and academic libraries, and professional librarians and students) and will be analyzed according to appropriate goodness-of-fit tests. The results will also be interpreted according to Klein's (2009) analysis of his own research. Our ultimate intention is to situate this research within the understanding of leadership and management, especially decision making, in libraries and information agencies.

Preliminary Findings: ALA Core Competencies, first year students and what they know

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Background of the study

In January of 2009 the American Library Association (ALA) adopted a set of core competencies to "define the knowledge to be possessed by all persons graduating from an ALA-accredited master's program in library and information studies (LIS)" (ALA, 2009). To date there is no literature in the LIS field that discusses whether students graduate with these competencies. Currently the accrediting arm of ALA is using the accreditation process and the information gained from an LIS program about its curriculum and faculty to determine whether it is likely that graduate students have gained the ALA outlined competencies during their course of study. There is little evidence so far correlating accreditation with the mastery of competencies.

Background of Competencies

In 1999 the ALA Executive Board created a core competencies task force at the recommendation of the Steering Committee of the 1st Congress on Professional Education. The recommendation consisted of two parts:

> 1.2 Identify the core competencies for the profession. A clear statement of competencies should be available to educators, practitioners and the public; while there has been concern expressed about lack of attention to particular core competencies, there is a statement of core competencies and of their importance for accreditation in the current [1992] Standards for Accreditation; these need to be affirmed and profiled, or reconsidered and revised; the resulting statement should be available separately as well; it may be necessary to specify the disciplinary base (e.g. organization of information and knowledge) and its application (e.g. classification, cataloguing).
>
> 1.3 Describe the competencies of the generalist of the future. It sometimes appears that each specialist association/division/group has defined the essential professional and personal competencies required to be employed, and effective, in the environment; while these statements are useful both for educators for planning education programs and professionals for planning continuing education, there needs to be a foundation set for the generalist librarian (Task Force, 2002, Background section).

After a challenging ten year process of committee work, public comment, and redrafting a list of eight core competencies was submitted to the ALA Executive Board at their fall 2008 meeting. The final statement was approved and adopted as policy by the ALA Council on January 27, 2009 during the Midwinter Meeting in Denver Co. (ALA, 2010, Core Competencies, para. 1).

Purpose of the study

The purpose of this study is to perform a program evaluation of the UWM School of Information Studies Master's of Library and Information Science degree to determine if three of the core courses required of all students in the program are providing a select number of the competencies deemed necessary by American Library Association. The results of this study may be used to inform curriculum organization and content among library schools. If there does not seem to be an appreciable gain in competencies between students entering the program and the completion of the core courses adjustments should be made to the curriculum to increase the levels of competency.

The related research questions are:

1. Is there a difference between the familiarity of the chosen competences between online and onsite students?
2. Do students with previous library experience score themselves appreciably better on their level of familiarity than those with no library experience at the beginning of their program of study?

3. Do students with previous library experience appreciably increase their level of competencies after having completed the core courses?
4. If an MLIS program does not contribute appreciably to the gain of the core competencies then is there a problem with the competencies, the measurement instrument or the program?

Methodology

This presentation will address the information obtained from the survey that all of the Fall 2010 incoming students were asked to participate in concerning their level of familiarity with the selected competencies. Demographic data, along with information concerning their experience with library work and plans for the future was collected at this time as well. A follow-up survey of these same students will be conducted at the end of the Spring 2011 semester to determine their perception of how well the competencies were covered in their core courses.

Significance of the study

The is the first study to take a direct approach in examining whether an MLIS program is successful in imparting ALA determined core competencies. If the program is successful in imparting these competencies then the program is meeting its objectives. If it is not successful in imparting these competencies then the program needs to be reevaluated, the competencies reviewed, and the accreditation process reexamined.

Hands on from a distance: Using community-embedded learning theory to contextualizean online course assignment

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FULL ABSTRACT

Context: Almost half – 28 of 62 -- the accredited graduate programs preparing Master's degree students for professional careers in the Library and Information Science professions (LIS) deliver program content in full or in significant part through online learning course delivery platforms (American Library Association, 2010). Many LIS graduate students set foot on their universities' campuses once or at most twice: for orientation and, perhaps, graduation. In the online learning environment courses may be delivered synchronously -- with enrolled students participating in live, regularly scheduled online learning sessions– or asynchronously – with students working through their readings, assignments, and threaded discussionsbut not interacting synchronously with instructors or classmates. It can be difficult for instructors to create controlled, measurable, hands-on experiential learning coursework for students who reside far from their educational institutions and take their classes asynchronously.

The most common vehicle used to facilitate experiential learning in online and on-campus LIS programs is a service learning project. Service learning opportunities in online LIS education typically include semester-long supervised internships, fieldwork or practica held at a site convenient to the student (Ball, 2008; Ball & Schilling, 2006; Grealy& Hall-Ellis, 2009; Roy, 2001; Yontz & de la Pena McCook, 2003). Internships and fieldwork are most commonly offered to students late in their programs of study after the students have successfully completed enough coursework to prepare them to perform successfully in the field. Online graduate students often do not have many opportunities prior to their internships or fieldwork to experience the professional environments in which they have chosen to make their careers even if they already work as paraprofessionals in their chosen fields.

The concept of service learning does not fully incorporate the prior life experiences students bring with them to graduate study. The recently developed theory of community-embedded learning (Haythornthwaite, Andrews, Kazmer, et al., 2007; Kazmer, 2005) recognizes that adult distance learning students draw on much more than their online learning social worlds and their course materials as they move through their academic programs. The theory demonstrates that adult online students interpret their academic experiences in the context of the communities in which they live and work. These students temper their course readings and assignments against the realities of their personal and professional lives. The theory of community-embedded learning recognizes that adult students bring a wealth of life experiences to their online graduate studies and may be well equipped to begin to meet the challenges of their chosen disciplines in the early stages of their academic programs.

This research project uses the theory of community embedded learning to interpret how graduate students in a fully online Library and Information Science program perform in a real world setting early in their academic programs. This paper presents preliminary findings from a qualitative analysis of 75 student reflective essays written at the conclusion of a semester-long multi-part assignment in which online learning students early in their academic careers act as management consultants in real world professional settings.

Methodology: The data for this study come from 75 reflective essays submitted by students in three sections of the required library and information center management course taught by the researcher in the academic year 2009-2010. The essays are first analyzed using verbatim coding (Saldana, 2009) to gather student responses to the assignment and categorize them using codes derived from the students' words. In the second stage of the projectthe dataare analyzedthematically to look for evidence of community-embedded learning theory and to test whether the theory is relevant to this group of students and helpful in contextualizing their experiences.

Preliminary Findings: Preliminary findings indicate that community-embedded learning theory provides a relevant context for interpreting these students' experiences of their field assignments.In turn, thesestudents' field experiences demonstrate the validity of the theory of community-embedded learningto a population with somewhat different characteristics from the original populations from which the theory was developed. The researcher anticipates that the theory of community-embedded learning will validate the design of the assignment and explain why online graduate students can productively be given a face-to-face, real world experiential learning assignment early in their academic programs – earlier than previously judged sound under the service learning model (Ball, 2008; Ball & Schilling, 2006; Roy, 2001; Yontz & de la Pena McCook, 2003).

Relevance to conference theme: Kazmer's(2007, 2005) theory of community-embedded learning is newly developed and has not yet been broadly applied to contextualize student experiences of computer-mediated distance learning beyond the populations Kazmer studied in developing her theory. This project will advance understanding of how Library and Information Science master's students negotiate the increasingly common online graduate professional learning environment by interpreting their work through the new lens of community-embedded learning theory.

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Use Rights, Scholarly Sharing, ILL and E-Reserves: A Longitudinal Content Analysis of Electronic Resource Licenses

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Scholarly resources are foundational to research and education, and expenditures on scholarly materials are increasingly devoted to electronic resources such as e-journals, full text and citation databases, e-books and databases of data. The license agreements that govern the acquisition and use of electronic scholarly resources are an important, but often overlooked, part of the research and education infrastructure.   In addition to determining price, license agreements determine how an electronic resource can be used once one has obtained lawful access. For example, an electronic resource may allow a user to make personal printed copies, but may forbid emailing digital copies to a friend at another institution (scholarly sharing).
 While licensing is an important governance tool in our research and education infrastructure, we have little cross-institutional data on licenses because publishers typically require libraries to hold licenses confidential. This confidentiality requirement limits systematic comparison of license terms across institutions (Librarians often informally discuss non-price related license terms). Because of this, existing licensing studies have described licenses from a limited number of institutions, at one point in time, or relied on unedited publisher model licenses. For example, Davis & Feather (2008) examined 35 licenses from five academic libraries. Stemper & Barribeau (2006) examined 40 licenses at one campus. Farb (2006, 2006a) examined 15 different publisher's "model" licenses posted on the web. Most licensing articles tend to focus on education for practice: providing definitions, explaining responsibilities, warning about major problem areas in licenses. Fewer studies, like those noted above, treat licenses and temporal changes in licensing terms, as objects of study. This project analyzes a large cross-institutional sample of licenses from the period 2000-2008. The data set of 288 discrete documents includes license agreements and addendums from 10 publishers and 52 different state institutions including 10 consortia.   Of the complete set, 153 of the documents represent consortia agreements, while 153 are from individual state institutions.
The data set was collected by Bergstrom, Courant and McAfee as part of a study on journal pricing (Bergstrom, 2009). Bergstrom et al. requested copies of university licenses with publishers using state open records laws from 28 states. Eschenfelder requested a copy of the data in 2009 in order to compare license access and use terms. Because Bergstrom et al. pledged not to use institution names in their research output, we do not name the included universities. Data will only be reported at aggregate levels. Bergstrom et al. post on their study website that the licenses originate from the following publishers: American Chemical Society, Blackwell, Cambridge University Press, Elsevier, Emerald, Oxford University Press, Sage, Springer, Taylor & Francis, Wiley and the post 2006 Wiley-Blackwell (which we count as a discrete publisher for data analysis purposes).
The research team will answer the following questions in analyzing the data:
Q1: Do license terms in the following areas change <u>over time</u>?
Q2. Do license terms in the following areas vary <u>across publishers</u>?
Q3: Do license terms in the following areas vary <u>by institution</u>?

- Personal use

    o Printing, downloading, storing copies, systematic reproduction

- Scholarly sharing

    o Giving copies to other authorized user, giving copies to non-authorized users, systematic distribution

- Interlibrary loan

    o Is a paper copy required as part of the ILL process? Is secure e-transmission permitted? Is sending to commercial users permitted?

- Electronic reserves

  - Is linking permitted or required? Acknowledgement of sources. Deletion of file after use is complete.

The study will employ a content analysis methodology to answer the above listed research questions about the full data set. A content analysis instrument was developed and refined by testing with standard publisher licenses posted on the Web. This testing developed a content analysis codebook to facilitate collecting data about how each license addresses each of the above research questions.

The codebook was finalized and the four authors trained themselves as coders by running tests on a stratified random subsample of license from the data. Acceptable levels of intercoder reliability (min 85% per question) have been achieved. The team is analyzing the full set of documents and analysis will be completed by December 2010.

While the results will not represent a random sample of university licenses, given the breadth of the dataset, one can argue that the results will be indicative of license terms agreed to by many public universities in the United States. By comparing earlier and more recent licenses, the results will show how access and use licensing terms have changed during the 2000's. Comparing across publishers, the results will show similarities and differences in access and use license terms across the ten included publishers. Comparing across university the results set show if universities differ in the terms of the access and use license terms they receive from publishers.

It is important that we have cross-institutional and temporal empirical data about license terms because an increasing amount of library materials are governed by license terms. Issues about access, use, ILL, and e-reserves will only become more prominent over time.   Knowledge of variance in license terms across time, publishers and institutions can help libraries in their collective efforts to change undesirable license terms.

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***Cooperative Inquiry as a Methodology and means of Consensus-Building for
School-Based Technology Integration and School Librarian Leadership***

Abstract

The research reported in this paper responds to the following question in relation to the 2011 ALISE conference theme:

- How do LIS programs, its research, scholarship, teaching, and service, remain competitive and innovative?

The intent of this paper is to provide an answer to this question, with emphasis on innovation in research. It describes six case studies that utilize cooperative inquiry (CI) methodology to explore how new school librarians can lead technology integration projects in their schools. Although CI has been used extensively by the Research Center for Leadership in Action at Robert Wagner School of Public Service, New York University (NYU) to affect organizational change in numerous nonprofit and nongovernmental organizations, it has never been used in LIS contexts. The paper describes CI conducted in school libraries in Florida through an innovative IMLS-funded partnership between the PALM Center at the Florida State University School of Library and Information Studies and the Wagner School.

According to experts at the Wagner School, cooperative inquiry is as much an educational and networking strategy as it is a research methodology. As an education strategy it is a structured process that facilitates learning from experience. As a networking strategy, it builds meaningful connections through the shared experience of exploring work and personal challenges. As a research methodology, it is a systematic process to generate new knowledge that is grounded in practice. Cooperative inquiry is also a political strategy. It is an intentional tool to democratize research by empowering its participants with decision-making capacity through out the process and by ensuring their ownership of the knowledge produced.

As a research strategy, cooperative inquiry differs significantly from traditional research. Rather than researchers collecting data from others, the cooperative inquiry group creates new knowledge based in participating members' personal experience, and this experience represents the only "data" collected during the cooperative inquiry. Also, because each inquirer participates fully in all decisions that affect the inquiry, there is both co-production and co-ownership of the knowledge produced.

In this paper, the researchers report the various means by which the school librarians were introduced to and engaged in CI; descriptions of their team meetings and facilitation process; and detailed examples of the school librarians' progress through the Cooperative Inquiry experience. The paper includes the experiences of six school librarians who are leading CI projects in their schools. Each of the participants is a recent graduate of Florida State University's School of Library and Information Studies Project LEAD school library leadership program, and in their first year as school librarians. All of the participants were responsible for selecting and cultivating their own school-based teams comprised of teachers, administrators, and technology personnel; the composition of each team was unique. Once the team was established, the school librarian facilitated CI-based discussions in which team members identified and agreed upon a project involving technology as a solution to a school-wide problem and made plans to execute the project. Each school librarian participant was then provided with a $6000 grant to implement the identified technology solution.

The significance of this research is not only that the innovative use of CI in LIS is directly relevant to the ALISE conference theme, but also the study reported in the explores previously undocumented educational, networking, and political factors experienced by new school librarians attempting to become leaders in their schools. An additional benefit of the is that the study has implications for the improvement of leadership training in LIS curriculum. As is the case in this IMLS- funded project, there has been support for LIS leadership initiatives related to the demand from the field for leadership. The rigorous follow-up involved in this study will determine the extent of the effectiveness of the participants' pre-service leadership curriculum in a real-world setting. This study will be extremely important for expanding the research base upon which leadership curricula can be built and should rely.

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Competition and Innovation: An Examination of How They Fit into the LIS Profession

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Competition and Innovation:
An Examination of How They Fit into the LIS Profession
"We are often drawn to this profession by its noble culture and tradition of service, learning, sharing, and cooperation --- all of which seem antithetical to competition."
~Correia 2006~

Abstract
This paper examines traditional understanding of competition and innovation and examines how these concepts fit into the library and information science profession. A glossary of terms related to competition and innovation is provided.

Introduction
Library and information science (LIS) is immersed in a global society that has forced the profession to reexamine its role and function in an increasingly demanding world. Of particular interest in this new society of information, technology, intelligence, and knowledge is the LIS profession's perception of competition and innovation (Johanessen & Olsen, 2010). Although competition and innovation are sometimes considered antithical to the practices of librarianship and at times have been met with criticism and a lack of enthusiasm (Berry, 2009), competition clearly has a critical role within the profession (Correia, 2006; Cronin, et al., 1994; Davenport & Cronin, 1994). Competition is necessary to ensure survival within a competitive society of marketing and production (Correia, 2006; Davenport & Cronin, 1994), and increases possibilities for LIS professionals to become more innovative (Webster, 2006).
But what is meant by competition and innovation within the LIS profession? And how do competition and innovation fit into a profession whose framework is based on collaboration and sharing (e.g., AASL & AECT, 1998; ACRL)? While certain aspects of competition and innovation such as academic competition, grant writing, and award

making are understood, it is not clear how competition and innovation are related to other LIS endeavors such as design of workspace (Davenport & Bruce, 2004) and teaching children 21st century skills (de Groot & Branch, 2009). The purpose of this paper is to define competition and innovation and to examine key influences from the corporate world that have shaped the evolution of LIS professionals' current conceptualization of competition and innovation. Distinct approaches to competition and innovation apparent in various sectors of the profession will also be examined, particularly those sectors such as information management (Cronin, et al., 1994; Davenport & Cronin, 1994; Davenport & Bruce, 2002) and others that have embraced competition and innovation. This paper argues that although many LIS professionals has reshaped traditional notions of competition and innovation to fit their particular culture and needs, the profession as a whole must understand the potential of competition to achieve greater value (innovation). The first section of the paper provides definitions that generally define competition and innovation in library and information science. Definitions include terms such as competition, innovation, value, competitive intelligence, and co-creation, collaboration, and dialogue. This section is followed by a discussion of influences from corporate models of competition and innovation. The paper also examines how LIS professionals have used concepts from corporate models such as competitive intelligence (Davenport & Cronin, 1994; Marin & Poulter, 2004) to promote competition and innovation. Next, ways in which distinct areas of the profession including academic, public and school libraries, and information management approach competition and innovation are discussed.

The Traditional Corporate Model of Competition and Innovation
A model of competition and innovation begins with understanding competition. Competition is considered an essential activity of U.S. society and is generally defined within the framework of commercial enterprises. Competition is closely associated with notions of profit, price reduction, and product variation (McNulty, 1968). Through competition, doors are opened thus allowing broad participation for institutions and groups to "show their wares" and race to the top (Gottinger, 2006). In corporate models, being competitive involves knowledge of what other corporations are doing by means of competitive intelligence (Cronin & Vakkari, 1992; Gottinger, 2006; Kahaner, 1998; Davenport & Cronin, 1994; Prescott, 1991), a way of acquiring outside information about what others are doing (Cohen & Levinthal, 1998), and analyzing the information (Kahaner, 1996) in order to create new products considered innovative. The corporation which succeeds in competition may emerge as innovative leaders. In this model, corporate knowledge is the engine which fuels innovation (Vella & McGonagle, 1988). While the model serves the corporate world well, it is less suited to the LIS profession. For example in the corporate world, the competitive edge achieved through competitive intelligence (CI), is often shrouded in secrecy and concern over protected information (Kahaner, 1998; Fuld, 2006), two unlikely elements of librarianship, which prides itself on openness of information and access (de Groot & Branch, 2009). Furthermore, "rising to the top" in LIS frequently involves collaboration in order to improve services, form partnerships, expand funding opportunities, and develop human capital (Drucker, 2002; Gray, 1989; Kanter, 1996; Mattessich & Monsey, 1992; Montiel-Overall, 2005; Senge, 1994). Collaborative practices in LIS are exemplified in innovations such as information commons (Schader, 2008), dual use libraries (Haycock, 2006), and digitization projects (Jacobs & McGregor, 2008). The synergy of collaboration is perceived to result in greater efficiency, less redundancy, and improved economy as well as more creative ideas leading to innovation (Ibid.).

Reshaping Competition and Innovation
A model proposed by Prahalad & Ramaswamy (2004) for the corporate world provides a key influence in LIS thinking about competition and innovation. The model, which focuses on the role users have in innovation, appears well suited to the LIS

profession's framework and philosophy. Consumers (users) are not simply recipients of innovation but active participants in co-creating innovation (value) by utilizing their knowledge and experiences in the process of innovation. Innovation occurs through close interaction-"co-creation" between provider and user through continuous dialogue and feedback, which engages individuals in innovative collaborative endeavors (Ibid.). The model fits within the culture of the LIS profession in developing innovative programming, services, space and design, library centrality, technology, policies, communication networks (Davenport & Bruce, 2002) and other facets of the profession. The model is also consistent with philosophical tenets of openness and transparency, which are often absent from corporate models of competition and monopoly (Vella & McGonagle, 1988).

Conclusion

This paper examines perceptions of competition and innovation within a profession built on a tradition of collaboration and value. The paper argues that current thinking about "co-creation" with users is a fit with the professions' long tradition of knowledge sharing to increase the value of library services and achieve innovation. Although competition and collaboration have often seen as radically different entities, there are multiple ways in which competition and collaboration work together in diverse areas of the library field (academic, public, school, information management, etc.) to achieve innovation.

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Glossary

Competition-offerings of comparable products and services (by companies) into the same target markets (audiences). Those provided services or products select between providers of services/products based on which is perceived to be the best or most competent/capable (West, 2001)

Co-Creation-used to describe equal partners working together to create something new. Co-creation is synonymous with collaboration (Prahalad & Ramaswamy, 2004).

Collaboration- equal partners engaged in shared thinking, shared planning and shared creation of something new. Collaboration is synonymous with co-creation. (Montiel-Overall, 2005).

Competitive Intelligence- systematic gathering and analyzing information about competitors' activities and general business trends to further your own company's goals (Kahaner, 1996).

Dialogue- productive interaction between equal partners (LIS professional and user) that fosters active engagement between partners for the purpose of action (Prahalad & Ramaswamy, 2004)

Innovation- generally defined as a new idea, practice, or object that has positive implications to society if widely adopted (Rogers, 2003).

Evidence-based design of information literacy instruction: Innovation in Pedagogy for the Library and for the MLIS

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Pedagogy in LIS education is influenced through a number of channels, by information professionals as individuals and via organizations such as the ALA Committee on Accreditation. In addition, teaching faculty make pedagogical decisions based on their own experiences, understandings of issues and trends, discussions with colleagues, and by examining others' syllabi. Rarely do we have the opportunity to develop systematic empirical evidence for our pedagogic decisions; the study described here provides such a prospect. Data gathered in a study of the information literacy (IL) experiences of undergraduates as they transition from high school to the post-secondary environment will be used not only to improve design of information literacy instruction in the university library, but also will be used to inform revision of an elective MLIS course in IL instruction.

Instructional practice in academic libraries tends to take as its starting point students' entry into the postsecondary context; examining students' prior knowledge, including previous IL instruction at the secondary school level, is not typically done. However, practices grounded in undergraduates' perspectives must explore their experiences with a view to building curriculum and designing pedagogy that have potential to increase the relevancy of students' learning for the digital context in which they live and work. It is with this goal in mind that a collaborative, longitudinal study of students in writing-intensive disciplines (i.e., humanities and social sciences) is being conducted at a major Canadian university.

Theoretical frameworks for IL connect instructional practices to competencies that enable learners at all levels and in all disciplines to locate, critically evaluate, manage and use information in a range of contexts and

learning environments. Development of these competencies is generally recognized as necessary for undergraduate learning and research in post-secondary environments. Government-mandated curricular documents at the Kindergarten-Grade 12 levels are designed to allow secondary students to become more information literate through appropriate use of technology. Other government curricular documents develop an inquiry-based learning model that emphasizes thinking about and using information within a problem-solving perspective or learning context. It is designed to be used within the information technology curriculum as well as with other core and optional programs. Most high school students in Canada and other countries are exposed to the information technology curriculum and inquiry-based learning model and can be expected to have developed appropriate information technology skills and competencies as a result. However, recent research suggests this expectation may not be met (Julien & Barker, 2009). The present study assesses the skill development of selected secondary and post-secondary students and explores their perceptions of how IL contributes to their academic engagement and success. The project also builds on previous research which examined undergraduates' experiences with campus learning spaces and students' use of information technology in completing their academic work (Given 2007).

Essay-style projects require specific skills for locating and critiquing information; thus, the focus on arts and social sciences students in this project points to the complexities involved in skills development for students engaged in this work. Although institutions across North America are concerned with (and have examined) IL skills development among undergraduates, very few projects examine students' perspectives and experiences longitudinally, at various points in their academic careers. Further, although students' formative educational exposure to knowledge required for critical assessment of resources and effective use of information technology tools begins in secondary school, research in IL typically does not draw links between activities in schools and universities. Research in education, however, notes a dramatic shift as students move from high school (where tasks are highly structured and students are provided a great deal of guidance) to university (where students must manage their own learning).

Study Design

This project examines students' experiences as they complete their last year of high school, to assess the preparation they have received for further study in post-secondary environments. The project then follows a select group of these students as they enter university and pursue the initial years of their first undergraduate degrees. The project is designed to document students' skills and their perceptions of readiness for appropriate engagement in their academic work. The study team, uniquely comprised of library and information studies and education scholars, and academic librarians, is following students on their journey from secondary school through first-year university and into the later years of their specialty programs.

The design of the project is multi-faceted: Approximately 25 face-to-face interviews with new university students in humanities/social sciences classes will be completed by the time of the ALISE conference. Information literacy skills testing (using the James Madison University "Information Literacy Test") with more than 100 grade 12 high school students in three high schools also is complete. These data will set a baseline for understanding students' familiarity and comfort with core skills and expectations. In addition, an audit of existing IL programs and practices at the university (both in the libraries and across campus, in academic departments/faculties) has been completed. The audit provides important contextual data for understanding the IL practices students encounter when they come to this university. Subsequently, a cohort of these students is being followed into their first two years of university, as their information literacy experiences evolve and mature. In these later phases, data will be collected via journals and focus groups. Results from the IL audit, skills tests and interviews will be presented at ALISE 2011.

The paper contributes to the conference theme of "innovation" as the collection of fresh empirical data to inform MLIS course design is an innovative approach to pedagogy in the field.

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Title: Leveling the playing field: Situating the discourse of accessibility in LIS
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Abstract:
Introduction
Bonnici, Mattta, and Wells (2009) surveyed library professionals working in libraries that provide resources and materials through the National Library Service. More than half the respondents felt that LIS school curricula insufficiently addressed the needs of persons with disabilities.
The concept of disability is a broad umbrella term defined by the United Nations (2009) in two parts. The UN first defines disability as a "long-term physical, mental, intellectual or sensory impairments." The second aspect of disability lies in how those with disabilities work "in interaction with various attitudinal and environmental barriers, [which] hinders their full and effective participation in society on an equal basis with others." Almost 36 million Americans and 4.4 million Canadians have a disability and the number of persons with disabilities is growing in both nations (Burns & Gordon, 2010; Government of Canada, 2005; Human Resources and Skills Development Canada, 2009; U.S. Census Bureau, 2008).
Persons with disabilities are also less likely than their peers to have post-secondary education (Canadian Council on Social Development, 2001). Related to educational attainment, persons with disabilities have a more difficult time competing in daily life. Employment, especially meaningful employment, is more easily obtained by persons without disabilities than those with disabilities (Kaye, 2003). Persons with disabilities start from an uneven position in relation to fellow citizens.
Libraries are often considered a leveler in terms of socioeconomic differences—providing resources or computers to people who might not otherwise have access to those resources (Russell & Huang, 2009; Epps, 2005).   However, they also can play an important role in the lives of persons with disabilities. Governmental and private organizations, like the National Library Service in the United States and the Canadian National Institute for the Blind, provide some library services to persons with disabilities, and the efforts of these programs work in combination with and are supplemented by the local schools, public, and academic libraries in individual users' communities.
The library profession is often a strong and vocal proponent of increased access for persons with disabilities. In Canada, a country with no nationwide legislation specifically concerning disabilities access, the Canadian Library Association has had guidelines in place since 1997. Additionally, Canadian library staff are playing a significant role in the implementation of the recent Ontario legislation, the Access for Ontarians with Disabilities Act (AODA). Along with a strong voice in matters of professional organization statements and being an active part of the discourse in developing new disabilities legislation, library service to persons with disabilities is a prominent topic in the LIS literature. This prominence in the literature provides the basis for the current research.
Study
How is the discourse on accessibility and disabilities situated within the discourse of LIS? The proposed presentation will cover a discourse analysis of the LIS literature on accessibility for persons with disabilities through a capability approach lens (Sen, 1992). The capability approach, as envisioned by Amartya Sen and Martha Nussbaum, is an ethical and political philosophy that takes an Aristotelian approach to Rawlsian distributive justice. The focus of a capability approach is not on an individual's achievement, but an individual's freedom to achieve. With this perspective, an individual's advantage and ability to compete is approached by examining "a person's capability to do the things he or she has reason to value" (Sen, 231).
The main focus for this research is the library literature from Canada and the United States, but significant trends in the library literature from such nations as Australia and the UK are also of interest. Two library and information science databases have been searched for articles focused on accessibility and disability issues in order to determine answers to the following questions –

- How are the concepts of accessibility and disability conceptualized in the LIS literature?

- What are the predominant discourses?

- What are these articles? (i.e. Who is writing these articles, what kinds of articles are they, what journals are they published in and from what countries do they come?)

Additional documents of interest are the statements on services to persons with disabilities released by the Canadian and American library associations. The Canadian Library Association has an association statement titled Canadian Guidelines on Library and Information Services for People with Disabilities and the American Library Association has a similar policy document titled Library Services for People with Disabilities Policy.
Findings
Among the preliminary findings are the following trends:
- Much of the literature is focused on the accessibility of libraries' web interfaces.

- There is a lack of the voices of persons with disabilities in the literature.

- Much of the literature is from the United States.

A significant presence of US-based articles is not surprising given the passage of the Americans with Disabilities Act in 1990. Canada does not have any nationwide equivalent legislation, but the province of Ontario is in the process of applying the AODA.
Findings have implications for both library education and practice. As the number of individuals with disabilities increases throughout North America it is not inconceivable that the number of persons with disabilities utilizing library services will also increase. This research will provide some guidance as to how the concept of disabilities is currently conceptualized in the literature and make suggestions for incorporating accessibility issues into library education.

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Marching Backwards into the Future:
Library and Information Science Education in Second Life
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Introduction

The world is undergoing rapid technological changes, and these changes are disrupting the ways in which knowledge and information are disseminated in society. At present, some educators argue that students are struggling to find meaning in the educational process (Wesch, 2008). Employers also state that graduates are not acquiring skills needed for workplace success – skills that can be acquired through active, hands-on pedagogies (Cassner-Lotto & Wright Benner, 2006). In an attempt to make the learning process more attractive and to prepare students for work in the 21st century, educators are exploring the use of three-dimensional virtual worlds such as *Second Life* (SL).

However, much of the utopian rhetoric surrounding educational technologies typically corresponds little to what is actually taking place. This paper will begin by examining the corporatization of education and the push toward the integration of technology into the curriculum. While SL is a visually rich space, its roots extend back to the two-dimensional, text-based Multi-User Dungeons (MUDs). Following a brief discussion of educational uses of MUDs, the paper will discuss the findings of a study that investigated SL-based library and information science continuing education courses. The concluding section will consider the implications of this research and the educational potential of virtual worlds.

The Corporatization of Education

Much of the literature on educational technologies argues that schools and institutions of higher learning must undergo a transformation in order to survive. While many individuals would agree that there is a push toward technology, not everyone agrees on its source. On the one hand, this move has been attributed to the "demands" made by today's students (e.g., Duderstadt, 2004). On the other hand, there are scholars who claim that this rhetoric is not coming from students, but rather, at least in some cases, from people outside academia. Moreover, there are concerns that the push toward new technological innovations is not about education; rather, it is about making money (Noble, 1998). Related to this is the appearance of stand-alone for-profit online institutions, such as the University of Phoenix, and their efforts to serve their consumer oriented "customers" – individuals who, according to Oblinger (2008), value convenience and expect academic success with minimal effort.

Educational Uses of MUDs

The design of today's three-dimensional, graphical virtual worlds was influenced by text-based virtual reality environments or MUDs. These environments were first developed in the late 1970s, and by the 1990s, educators such as Bruckman and Fanderclai began to investigate ways to make learning enjoyable by using MUDs for teaching, learning, and scholarly collaboration. MUDs are designed to encourage interaction – to be places where the "sage on the stage" lecture model is unproductive. However, some educators find it difficult to adopt a new teaching philosophy (e.g., Fanderclai, 1996), which can hamper the integration of innovative educational practices into the curriculum. As Bruckman (1998) and Fanderclai (1996) observed in MUDs, the instructors asked students to complete rote activities rather than allowing them to engage in activities that were more meaningful to them.

Curriculum Delivery in SL

With regard to virtual world teaching, many educational technologists promote the shift from teacher-centered methods that are more aligned with a behaviorist approach to ones that are more student-centered and democratic. These arguments are often made from a constructivist theory perspective. This study involved ethnographic and discourse analysis methods to examine the pedagogical practices of three, non-credit

continuing education courses at the beginner, intermediate, and advanced levels. Contrary to the claims that constructivist ideals are pervasive in virtual world educational initiatives, the SL instructors who taught the sessions observed for this research relied heavily upon a teacher-centered approach. While students indicated that they favored this type of lecture format, they responded favorably when the instruction involved more active and hands-on learning tasks.

Conclusion

Three-dimensional virtual worlds may support meaningful, student-centered learning experiences. However, this study found that the SL educational practices did not differ dramatically from the teacher-centered, physical world classroom. In fact, many of the issues and concerns associated with teaching and learning in MUDs were prevalent in the SL courses examined in this study. Thus, simply situating a course in SL will not automatically convert the teacher-centered classroom into one where constructivist ideals are the norm. Some scholars caution that the technology is not a substitute for the physical classroom (e.g., Wedemeyer, 1981). More specifically, SL alone will not enable students to overcome their "crisis of significance" (Wesch, 2008). While there is evidence to suggest that SL can be an effective learning environment, making the shift away from behaviorist ideals that remain prevalent in today's physical classroom is difficult, even when the instructors embrace the technology.

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A method to identify areas for faculty development using faculty self-assessment and student opinion of instruction in an online MLS program

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Final abstract:

The Department of Library Science in East Carolina University's College of Education offers an online Master of Library Science degree program, and integrated and systematic evaluation of the quality of online teaching is critical to overall program quality. This case example follows the development and testing of a method to compare the program faculty's self-assessment of teaching with student opinion of instruction in an online environment to determine 1) the level of agreement between faculty self-assessment and student assessment of instruction across dimensions of Chickering and Gamson's *Principles for Best Practice*, 2) areas of overall instructional strength and weakness with regard to the *Principles*, and 3) directions for individual and whole-group professional development in online teaching in order to improve overall program quality. Because this experimental study was performed for the express purpose of internal formative evaluation, no findings are reported. The paper describes the design and statistical methods used in the study, the process used to collect data anonymously and to ensure individuals' privacy, data collection instruments and sample matrices used for tabulations, and related statistical tests. Although specific findings are not presented, the design and method appeared to generate sound and useful results. Also discussed are limitations of design and method, along with considerations for others who may wish to explore similar comparative faculty-student assessments of teaching.

Items from the University's *Student Opinion of Instruction Survey (SOIS)* were mapped to the *Principles for Best Practice* and faculty rated themselves on their performance according to the *Principles*. Individual and aggregated self-assessment ratings were compared to student ratings to test the null hypothesis that there is no difference between faculty and student perceptions of quality of program instruction. Pearson correlations were calculated for individual faculty across the *Principles*, and for the faculty as a group. Tabulations determined which of the *Principles* and which of the individual *SOIS* items produced the highest and the lowest student scores for the faculty as a group. Analyses of aggregated data were used to suggest faculty professional development to improve the quality of instruction in the MLS program.

In common practice, student evaluations are of teaching delivered as online or paper-and-pencil surveys composed of items thought to represent the best principles of course design and college teaching, and may include opportunities for students to comment on aspects of the course and the instructor. Although teaching effectiveness surveys are commonplace in higher education, questions remain about their use. Major concerns include low response rates and subsequent sample bias, and the potential effects of intervening variables unrelated to teaching and learning, e.g. an instructor's personality, the amount of work or difficulty of work in a course, and a students' actual or anticipated course grades. Nevertheless, student surveys of teaching effectiveness remain a constant presence in colleges and universities.

Most student survey processes are mandated at the institutional level, but used at the individual faculty level. Survey results are used in part to make personnel decisions, including performance evaluation, merit pay, teaching awards, appointment to graduate faculty status, professional development, reappointment, tenure, and promotion. They have been used less frequently as formative assessments or to enhance faculty

development. Only rarely have they been used as a method to embark on systematically improving the overall teaching quality in a specific program. Most faculty would like to improve the effectiveness of their teaching, but may not know how or where to begin. In the online environment, student feedback may lack immediacy and there are fewer opportunities to observe student behaviors directly than in face-to-face teaching. End-of-course student surveys are the only opportunity faculty may have to generate feedback. Comparison of faculty self assessments with student assessments creates a shared basis of evaluation, identifies issues for individual faculty reflection on teaching, and can serve as a departure point for selecting professional development activities to improve instruction.

"How LIS Faculty Respond to Library Service Innovations: A Case Study."

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Final abstract:

Academic libraries function in a highly competitive environment. Information, personnel, and infrastructure costs continue to rise, while other campus units and programs clamor for more funding too. All too often, cost-saving innovations in academic libraries are greeted with dismay by faculty because they eliminate or displace traditional services or collections upon which faculty have come to rely. However, LIS faculty members are arguably better informed about the pressures on libraries today and might be expected to welcome innovation in library services or at least not to assume a reactionary stance toward change. Indeed, this was the case at the University of Illinois, Urbana-Champaign, where the Library & Information Science Library (a full-service library located within the Main Library building) was closed in May 2009.

The decision to close the LIS Library was reached after a series of discussions, open forums, and a user survey. Evidence of declining on-site use was a precipitating factor; the interdisciplinary nature of LIS inquiry and the rapid evolution of online information sources also influenced the decision. The Associate Dean of the Graduate School of Library and Information Science (GSLIS) served on the planning team for the transition, and several aspects of the plan were tweaked to accommodate faculty concerns. The faculty's attitude overall might best be characterized as "accepting." Some opposed the change; some applauded it; most accepted as an inevitable, albeit regrettable, change that would require them to alter some of their information-seeking practices.

The LIS Library's print collections were dispersed among other departmental libraries, the Main Library book stacks, and a high density storage facility. The LIS Librarian and her assistant began spending 10-12 hours per week "embedded" at the GSLIS building. The LIS Library's website was transformed into the LIS Virtual Library, a portal to LIS information with enhanced content and search features. The new service model was designed to be simultaneously more digital and more personal.

A year after the LIS Library closed its doors, faculty members were surveyed to determine how well the new service model is meeting their needs. Although several other libraries have closed or merged as part of the University of Illinois Library's New Service Models program, the LIS users were the first to participate in a formal post-closure assessment. A web-based survey was directed at the primary non-student users of LIS information: GSLIS faculty and staff; and University Library faculty and staff. Existing email lists were used to invite participation and send reminders. 105 responses were received. This paper analyzes the results, with particular attention to the responses from GSLIS faculty.

The survey instrument included multiple-choice questions intended to reveal how respondents identify and access LIS information, how they stay abreast of new publications in the field, and how (and how often) they turn to librarians for reference assistance. Questions measured the usage of the Librarian's Office Hours and elicited reasons for non-use. Additional questions gauged the frequency of use of the LIS Virtual Library and elicited feedback on it. Respondents were asked about the desirability of adopting social networking tools for LIS-related library services. Finally, a series of open-ended questions invited respondents to comment on the benefits and drawbacks of the new service model and to make additional suggestions for improving services.

The survey data will be extremely useful as the University of Illinois Library moves forward with the development of new services for LIS and other fields. The survey is a model for other assessment efforts within the University Library. In addition, the survey results will be of wider interest to the LIS community because the data serve as a snapshot of how LIS scholars access information, what they desire from the library, and their attitudes toward a major shift in library support for their research and teaching.

Innovation in Diversity Related Research:
An Examination of a Decade of Diversity Doctorates at LIS Schools (2000-2010)

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FINAL ABSTRACT

Many library services are designed to reach specific underrepresented populations –older adults, immigrants, non-English speakers, and persons with disabilities, among others. Given the fact that information professionals will work with individuals from many different populations, diversity and inclusion need to be conceived broadly in LIS. However, LIS schools still lack faculty diversity, do not offer a plethora of diversity courses and have a limited focus on research into diversity issues. To address lack of faculty diversity, diversity course offerings, and diversity research, the doctoral curriculum administered by LIS schools must be examined closely. It is vital that we investigate the extent to which diversity content is integrated into the doctoral programs and the spectrum of diversity research that is undertaken by doctoral students and faculty. As part of a larger study, we begin this exploratory study by examining the integration of diversity related elements into doctoral dissertations completed at LIS schools.

The purpose of this study is to determine the nature and extent of inclusion of diversity-related elements in dissertation studies completed at ALA accredited LIS schools in the last decade. By examining the populations (such as ethnic populations, older adults etc.) that have been studied, the venue (such as libraries, museums, etc.) of these studies, and the "universe" of issues of diversity being studied, this study will better illuminate the focus on diversity in the research of recent graduates of LIS doctoral programs. This study also examines the current affiliation, research, and teaching interests of these doctoral graduates that have included diversity-related elements in their dissertation to capture the evolvement of their research or teaching interests in diversity.

The research project consists of two distinct parts. The first part of the inquiry is conceptualized to uncover the nature and extent of inclusion of diversity-related elements in dissertation studies. Four questions guide the first part of the inquiry:
RQ1 – What diversity-related elements have been studied in dissertations that were completed at ALA accredited LIS schools?
RQ2 - What are the venues (such as libraries, museums) in which diversity is examined in these dissertation studies?
RQ3 – What were the reasons the authors chose to study these issues or population?
RQ4 – Is the diversity-related issue the primary or secondary component of the dissertation study?

The second part of the inquiry is driven by two additional research questions designed to examine the career paths of the dissertation authors. The following research questions guide the second part of the inquiry:
RQ5 – What career paths have the dissertation authors pursued?
RQ6 – Are these individuals still conducting research, teaching, service and work related to diversity? If yes, what are the aspects of diversity that they are working on?

We retrieved dissertation abstracts that were completed between January 2000 and January 2010 from the *Proquest Dissertations and Thesis* database that were classified as "library science" and "information science" dissertations. We then selected only the dissertations that were completed at ALA accredited LIS schools, and used diversity related words and phrases in the title or abstract of the dissertations. These dissertations were retrieved using 44 keywords and phrases that reflect or relate to diversity , such as "diversity", "race", "ethnicity", "multicultural", "minority", "accessibility" and others, that were carefully chosen by the researchers (all four researchers include research and teaching diversity as a pillar of their academic careers).

The first part of the inquiry was answered by using the following methodology. Conceptual and relational content analysis was performed to identify thematic elements of diversity (RQ1). The thematic element of diversity is reflected in a visual map of diversity – which includes the range of themes being studied, the populations studied and the emphasis given to each theme. Based on the information that we retrieved from the abstracts, we also present the venue of diversity dissertation studies in a visual map of venues of diversity (RQ2) – which includes museums, school libraries, academic libraries, special libraries, information centers, research centers and more. We analyze the relationship between the thematic elements of diversity found in RQ1 and the venue for these themes found in RQ2 by presenting a relationship matrix of diversity coverage. We underline the innovative aspects of diversity that are being studied in these dissertations. For RQ3, we established nodes for each of the theoretical concepts and key terms that emerged as the reason behind each author's choice to conduct research related to diversity. We also categorized the emphasis on diversity for each abstract as primary, secondary, tertiary or minor component (RQ4). Each abstract was analyzed by at least two researchers to ensure reliability. Coding memos were established and maintained an audit trail among the coders.

For the second part of the inquiry, using the retrieved dissertation abstracts, we located the authors of these dissertations by conducting web searches, by searching citation databases, or by contacting the schools from which they graduated for information to help address RQ5 and RQ6. We present our results of their current positions. To determine their continued interest in diversity, we browsed their web pages and curriculum vitas (if they have a web presence) or searched for their recent publications. From these sources, we summarize the aspects of diversity that they continue working with and the expansions or contractions of this interest.

This research provides visualization of research endeavors in diversity by the doctoral graduates from ALA accredited LIS schools and presents the gaps, emphasis and innovations on diversity research at the doctoral level. Encouraging diversity research at the doctoral level will escalate continuous momentum as these doctoral students become faculty members at LIS schools – and continue to educate the next generation of librarians, information specialists and researchers in meeting the needs of diverse populations.

Competition and Innovation: An Examination of How They Fit into the LIS Profession

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Competition and Innovation: An Examination of How They Fit into the LIS Profession
"We are often drawn to this profession by its noble culture and tradition of service, learning, sharing, and cooperation --- all of which seem antithetical to competition."
~Correia 2006~

Abstract

This paper examines traditional understanding of competition and innovation and examines how these concepts fit into the library and information science profession. A glossary of terms related to competition and innovation is provided.

Introduction

Library and information science (LIS) is immersed in a global society that has forced the profession to reexamine its role and function in an increasingly demanding world. Of particular interest in this new society of information, technology, intelligence, and knowledge is the LIS profession's perception of competition and innovation (Johanessen & Olsen, 2010). Although competition and innovation are sometimes considered antithical to the practices of librarianship and at times have been met with criticism and a lack of enthusiasm (Berry, 2009), competition clearly has a critical role within the profession (Correia, 2006; Cronin, et al., 1994; Davenport & Cronin, 1994). Competition is necessary to ensure survival within a competitive society of marketing and production (Correia, 2006; Davenport & Cronin, 1994), and increases possibilities for LIS professionals to become more innovative (Webster, 2006).

But what is meant by competition and innovation within the LIS profession? And how do competition and innovation fit into a profession whose framework is based on collaboration and sharing (e.g., AASL & AECT, 1998; ACRL)? While certain aspects of competition and innovation such as academic competition, grant writing, and award making are understood, it is not clear how competition and innovation are related to other LIS endeavors such as design of workspace (Davenport & Bruce, 2004) and teaching children 21st century skills (de Groot & Branch, 2009). The purpose of this paper is to define competition and innovation and to examine key influences from the corporate world that have shaped the evolution of LIS professionals' current conceptualization of competition and innovation. Distinct approaches to competition and innovation apparent in various sectors of the profession will also be examined, particularly those sectors such as information management (Cronin, et al., 1994; Davenport & Cronin, 1994; Davenport & Bruce, 2002) and others that have embraced competition and innovation. This paper argues that although many LIS professionals has reshaped traditional notions of competition and innovation to fit their particular culture and needs, the profession as a whole must understand the potential of competition to achieve greater value (innovation).

The first section of the paper provides definitions that generally define competition and innovation in library and information science. Definitions include terms such as competition, innovation, value, competitive intelligence, and co-creation, collaboration, and dialogue. This section is followed by a discussion of influences from corporate models of competition and innovation. The paper also examines how LIS professionals have used concepts from corporate models such as competitive intelligence

(Davenport & Cronin, 1994; Marin & Poulter, 2004) to promote competition and innovation. Next, ways in which distinct areas of the profession including academic, public and school libraries, and information management approach competition and innovation are discussed.

The Traditional Corporate Model of Competition and Innovation
A model of competition and innovation begins with understanding competition. Competition is considered an essential activity of U.S. society and is generally defined within the framework of commercial enterprises. Competition is closely associated with notions of profit, price reduction, and product variation (McNulty, 1968). Through competition, doors are opened thus allowing broad participation for institutions and groups to "show their wares" and race to the top (Gottinger, 2006). In corporate models, being competitive involves knowledge of what other corporations are doing by means of competitive intelligence (Cronin & Vakkari, 1992; Gottinger, 2006; Kahaner, 1998; Davenport & Cronin, 1994; Prescott, 1991), a way of acquiring outside information about what others are doing (Cohen & Levinthal, 1998), and analyzing the information (Kahaner, 1996) in order to create new products considered innovative. The corporation which succeeds in competition may emerge as innovative leaders. In this model, corporate knowledge is the engine which fuels innovation (Vella & McGonagle, 1988).

While the model serves the corporate world well, it is less suited to the LIS profession. For example in the corporate world, the competitive edge achieved through competitive intelligence (CI), is often shrouded in secrecy and concern over protected information (Kahaner, 1998; Fuld, 2006), two unlikely elements of librarianship, which prides itself on openness of information and access (de Groot & Branch, 2009). Furthermore, "rising to the top" in LIS frequently involves collaboration in order to improve services, form partnerships, expand funding opportunities, and develop human capital (Drucker, 2002; Gray, 1989; Kanter, 1996; Mattessich & Monsey, 1992; Montiel-Overall, 2005; Senge, 1994). Collaborative practices in LIS are exemplified in innovations such as information commons (Schader, 2008), dual use libraries (Haycock, 2006), and digitization projects (Jacobs & McGregor, 2008). The synergy of collaboration is perceived to result in greater efficiency, less redundancy, and improved economy as well as more creative ideas leading to innovation (Ibid.).

Reshaping Competition and Innovation
A model proposed by Prahalad & Ramaswamy (2004) for the corporate world provides a key influence in LIS thinking about competition and innovation. The model, which focuses on the role users have in innovation, appears well suited to the LIS profession's framework and philosophy. Consumers (users) are not simply recipients of innovation but active participants in co-creating innovation (value) by utilizing their knowledge and experiences in the process of innovation. Innovation occurs through close interaction-"co-creation" between provider and user through continuous dialogue and feedback, which engages individuals in innovative collaborative endeavors (Ibid.). The

model fits within the culture of the LIS profession in developing innovative programming, services, space and design, library centrality, technology, policies, communication networks (Davenport & Bruce, 2002) and other facets of the profession. The model is also consistent with philosophical tenets of openness and transparency, which are often absent from corporate models of competition and monopoly (Vella & McGonagle, 1988).

Conclusion
This paper examines perceptions of competition and innovation within a profession built on a tradition of collaboration and value. The paper argues that current thinking about "co-creation" with users is a fit with the professions' long tradition of

knowledge sharing to increase the value of library services and achieve innovation. Although competition and collaboration have often seen as radically different entities, there are multiple ways in which competition and collaboration work together in diverse areas of the library field (academic, public, school, information management, etc.) to achieve innovation.

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Glossary

Competition-offerings of comparable products and services (by companies) into the same target markets (audiences). Those provided services or products select between providers of services/products based on which is perceived to be the best or most competent/capable (West, 2001)

Co-Creation-used to describe equal partners working together to create something new. Co-creation is synonymous with collaboration (Prahalad & Ramaswamy, 2004).

Collaboration- equal partners engaged in shared thinking, shared planning and shared creation of something new. Collaboration is synonymous with co-creation. (Montiel-Overall, 2005).

Competitive Intelligence- systematic gathering and analyzing information about competitors' activities and general business trends to further your own company's goals (Kahaner, 1996).

Dialogue- productive interaction between equal partners (LIS professional and user) that fosters active engagement between partners for the purpose of action (Prahalad & Ramaswamy, 2004)

Innovation- generally defined as a new idea, practice, or object that has positive implications to society if widely adopted (Rogers, 2003).

Workforce Issues in Library and Information Science 2 (WILIS 2): Findings from a Shared Recent Graduates Survey

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LIS programs have generally lacked the time and resources to systematically survey their graduates. As a result, stakeholders lack an adequate understanding of what happens to graduates. Educators, in particular, do not have ongoing data about the extent to which their programs meet students' expectations, prepare them for the workplace or meet continuing learning needs. The goal of the Workforce Issues in Library and Information Science 2 (WILIS 2) study is to design and test a shared alumni tracking system that all LIS programs can potentially use. This IMLS funded project employs a community-based participatory research (CBPR) approach in which LIS program administrators, researchers and other stakeholders jointly engage in all aspects of research process (e.g., survey development, report design, sustainability).

The study includes a web-based survey of recent graduates of 39 participating LIS programs – 74% of which are ALA accredited programs. The combined total response rate for LIS graduates across participating programs is 45%. The methodology includes web-based survey with an email invitation and three email reminders. The web-based survey focused on the educational and work histories of the respondents, continuing education needs, satisfaction with LIS as a career, perspectives of recent graduates about their LIS programs and entry into the workforce and demographics.

This paper will present the results of the WILIS 2 survey from all three phases (39 programs). Some key findings are:
- Of those currently working, the vast majority of LIS graduates (89%) are working in jobs that use their LIS skills and knowledge. The three major employers for LIS grads are academic libraries (25%), public libraries (24%) and school library media centers (16%). Twenty-five percent are working in non-library settings.
- Nearly all (92%) LIS graduates are satisfied with LIS as a career. Only 6% plan on leaving LIS work within a year.
- LIS graduates are interested in participating in continuing education via traditional modes (workshops and training sessions) as well as online modes (webinars, courses).

- Most graduates (68%) report a job search that lasted 3 months or less. However, for 11% the job search lasted more than 6 months.
- The majority of graduates rated their overall experience with their LIS program as "good" (42%) or "excellent" (43%).
- More than half (63%) of LIS graduates took at least some of their courses online. However, for only 23%, half or more of their courses were held predominately online.

According to participating LIS programs, the data collected through the WILIS 2 Shared Recent Graduates Survey has been useful in terms of accreditation, strategic planning, internal institutional reporting and quality improvement projects. The recently IMLS-funded WILIS 3 project will build on both the WILIS 1, a comprehensive study of career patterns of graduates of LIS programs in North Carolina, and the WILIS 2 project. The goals of WILIS 3 are to 1) create publicly accessible de-identified datasets from WILIS 1 and 2 studies; 2) develop an interactive program-specific data system that will enable LIS programs to explore their own data and benchmark with other programs; and 3) produce a best practices toolkit for data archiving that can be used by other researchers.

Paper mini-abstract (max 30 words):
The goal of the WILIS2 study is to design and test a shared alumni tracking system that all LIS programs can potentially use. This paper will present the study results.

What is the Value of LIS Education? A Qualitative Study of Rural Librarians in the Southern and Central Appalachia

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Rural library and information professionals working in the Southern and Central Appalachia (SCA) are in a unique position to identify, address, and overcome the region's marginalizing social, cultural, economic, political, and environmental circumstances (Center for the Study of Rural Librarianship, 2008; Flatley & Wyman, 2009; Sanchuk, 2004). Their critical information needs and concerns experienced as a result of high poverty and low education levels prevalent in their local communities and a lack of effectual access to resources and information technology (IT) in the region (American Library Association, 2004; Appalachian Regional Commission, 2002; Oden, Strover, Inagaki, & Lucas, 2004; Simkin & Futch, 2006) have traditionally been inadequately represented in the library and information science (LIS) professions, and are only recently beginning to get some attention in LIS education (Mehra, Black, & Lee, 2010; Mellon & Kester, 2004). For LIS education to remain competitive and maintain its cutting-edge relevance as a professional entity there have to be greater efforts in integrating disenfranchised voices of librarians and others from the SCA into mainstream politics and practices as well as in balanced decision-making that insures the equitable sharing of resources. Not only is this an ethical and moral responsibility of LIS educators, moreover, such progressive efforts will help LIS programs become more diverse in their extent and outreach to educate and train future library and information professionals about the needs of rural communities so that they can develop more relevant information services and systems for rural patrons and other constituencies (Mehra, Black, Singh, & Nolt, forthcoming). There are, however, very few current and rigorous studies documenting the authentic experiences and realities of rural library and information professionals from the SCA (Dent, 2006; Hildreth, 2007; Kernicky, 2006). In order to address this missing gap, the current research documents the expectations of the SCA's library and information professionals regarding LIS education and training and explores how that feedback may inform the development of a more responsive LIS curriculum that is particularly geared towards integrating rural information needs and expectations. Specifically, this paper presents a qualitative analysis of the perspectives of SCA's rural librarians about:

- Their critical information needs and services provided to their rural clients;

- The value of LIS education in maintaining and/or improving library services to their rural communities;

- The future role of LIS education in the context of changes experienced in the SCA's rural libraries in the 21st century.

The paper reports on feedback gathered from 50 library and information professionals from the SCA who participated in 11 focus group interviews orchestrated during March/April 2010 via online and face-to-face meetings. Participant responses focused on provision of existing library services and information challenges experienced in their SCA's rural libraries. Participants also shared their expectations of LIS education to further their efforts to address local information needs and use of information resources and IT services. The participants were from Kentucky, Tennessee, and West Virginia and included: twenty-eight county or branch public library directors/managers, four regional library staff, two regional library directors, two medical and allied health librarians, two outreach or community librarians, two library assistants, one reference and instruction librarian, one information literacy librarian, one special library programs director, one technical

resource professional, one information services supervisor, one technology coordinator, one genealogy assistant, one library web coordinator, one public library assistant director, and one other library administrator.

Research findings indicated that there is an urgent need for professional library education and library continuing education for those working in the SCA's rural libraries, and specific training needs include IT competencies and management skills. Evidence gathered from the needs assessment focus group interviews also suggested that formal library education will help the region's information professionals to understand the broader context in which the local and regional events occur. A majority of research participants expressed a desire for greater practical training in IT and computers. The participants also expressed that more IT education will help them to better exploit the technology resources that exist in their communities which would enable them to enhance and extend existing services or to provide more innovative services specifically catering to the needs and wants of their rural patrons. For example, research participants indicated a desire to learn how to produce short instructional podcasts/videos in how to use their library's services that patrons can watch. These brief instructional videos can support patrons' feelings of mastery and self-sufficiency as well extend the amount of one-on-one services that the staff can offer (i.e. the use of instructional videos can help patrons learn to use computers where there is not enough staff to provide actual computer courses). Research participants also expressed a desire for greater training in management competencies in order to become more efficient in their daily tasks. This paper also shares some of the specific strategies identified by research participants that are currently being incorporated in LIS courses offered in the School of Information Sciences at the University of Tennessee to develop a more specialized curriculum that focuses on IT and management integration in rural librarianship. The vision is that with the emergence of newly graduating cohorts aware and trained in applying IT to develop tangible outcomes that are responsive to rural information-related settings such efforts will have a reach in multiple levels of impact including the rural community level, the educational program level, and at the national level.

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Remodeling "Relevance Work" for the LIS Curriculum

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The need for informational professionals in various intelligence sectors since the events of September 11, 2001 has led to increased interest in curricula that prepare for this type of information-intensive work (Berkien, 2006; Parker, Nitse, & Davey, 2008). However, within LIS, there has been little published since Shelfer & Goodrum (2000) on the specific value that such possibilities might offer towards strengthening and supporting existing curricula. This paper describes how separate classes in introductory reference and in strategic intelligence can be usefully viewed together as expanding the role of "relevance work" within the LIS curriculum.

Hjørland's recent (2010) reconceptualization of the foundations of relevance has important implications for the foundations of reference as well. Long before the creation of computerized systems, reference work was based on relevance: finding the "best match" for an individual patron's expressed need within the confines of a particular collection environment (Dana, 1920). Reference education is built on this foundational paradigm of the librarian as both guardian and gatekeeper for an individual collection, whose knowledge of the surrogates for specific items informs interactions over time with a succession of potential users of those items. Although suggestions of a shift towards reliability and community-based rather than authority and collection-based views of reference activities are being made (e.g, Lankes, 2008), the classic paradigm still obtains in most reference courses.

Intelligence work also rests on a relevance-related foundation: its goal is timely decision-making informed by "actionable intelligence" found through a variety of means (McGonagle, 2007). Rather than concentrating on a current collection of informative items, however, the emphasis is on discovery and analysis of highly pertinent information that may or may not exist in any organized form (Fahey, 2007). Actionable intelligence is ephemeral by definition: it has more in common with news items than with well-established facts (Luhn, 1958). Part of its contribution to the redefinition of relevance work lies in extending time continuum considerations beyond the usual focus on collection obsolescence (e.g., Line, 1993).

Dismissing the many previous definitions of relevance (e.g., Mizzaro, 1998; Saravecic, 1975, 2006), Hjørland claims that relevance should be viewed as a pragmatic approach to the overall information ecology, and that "documents" (in their broadest sense), wherever they may be found, are either appropriate or not appropriate to a given task relative to those goals, values, and interests. Although he stresses the importance of subject expertise and uses scholarly literature as an example of what he terms the domain-oriented view of relevance, clearly relevance and its domains can be construed as being broader in scope. Accordingly, reference and intelligence work become two facets of what we will call "relevance work," which offer opportunities to integrate other domain-oriented information activities into the LIS curriculum. This article will consider the re-envisioning of "relevance work" to denote a continuum of intermediated relevance activities, including what we will term "supportive reference work," which covers a variety of library environments, and "strategic relevance work," which covers what is called "strategic," "competitive," or "business" intelligence, depending on context.

Considering these two facets of relevance work in tandem creates opportunities for revised, stronger LIS curricula and more effective use of faculty resources. Replacing discrete courses in the two areas with courses that recognize and synthesize shared core concepts provides the opportunity for creating information professionals with a deeper understanding of information provision and a more transferable skill set. Having

provided a broad-based foundation, schools may then have the opportunity to offer a wider variety of higher level and more specialized courses. An expansive view of relevance work suggests that education in LIS schools can encompass a wider range of skills than is normally envisioned, providing both additional employment opportunities for graduates and avenues for research into the applications for intermediated "relevance work" in a variety of settings. This has become increasingly important since Miller's (1994) early review of the challenges and opportunities involved in offering LIS educational programs for intelligence professionals. Such innovative approaches to the LIS curricula appear even more necessary, given the gradual transitions projected in the employment market over the next decades (Davis, 2009).

This project stems from a content analysis (White & Marsh, 2006) of catalog course descriptions available on the Web from graduate level courses identified as focusing on introductory reference or strategic intelligence skills in the eight ALA-accredited schools of library and information studies that offer both courses. The relevance-related educational content was sorted into a dozen primary categories as shown in Appendix 1. The full paper further focuses on the specifics of each of the dozen categories, especially on how they can be used to enhance student comprehension of the wide range of "relevance work," their interrelationships, and the variety of competencies required.

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Appendix 1   Educational Content for "Relevance Work"

Categories:	Supportive Reference Work:	Strategic Intelligence Work:
Products	Relevant information (usually published information) or referral to other source	Actionable intelligence (often unpublished information)
Expertise	Search skills Expository skills Collection knowledge (service- or education-oriented)	Search skills Analytic skills Mission knowledge (industry- or government-oriented)
Ethics	Protection of user's privacy paramount Service orientation Respect for copyright	Refrain from identity misrepresentation Investigative integrity Respect for intellectual property rights
Environment	Transaction-based Varies: both regular and new customers	Interaction-based Usually regular customers (often managerial)
Needs Assessment	Reference Interview (initial and follow up as necessary)	Information Requirements (at different stages of "intelligence cycle")
Instruction	Often applicable (emphasis is on demonstrating search process)	Seldom applicable (emphasis is on providing final results)
Timing	Often time-sensitive; determined by nature of user need	Usually extremely time-sensitive; determined by nature of information and user need
Value	Effort is standardized (determined by library policies) regardless of value to user	Effort is customized (determined by organizational policies) based on value to user

Tools	Collection based:
	
	1st level: general audience reference sources both print and electronic
	
	2nd level: specialized databases & resources
	
	3rd level: referral to experts
	          specific publication sources
		Situation based:
		
		1st level: industry or political news sources
		
		2nd level: business-specific or government-specific news sources
		
		3rd level: human intelligence sources
		          signal sources

Query modes	Database: Keywords/SubjectHeadings/Tags Print: Abstracts, Indices, TOCs	Dependent on context
Evaluation	Of tools Of precision, recall, relevance of results Of customer satisfaction	Of credibility of sources/information Of usefulness and timeliness of results Of customer satisfaction
Distribution	Delivery of results to customer	Detailed analysis of results for customer

Information Literacy and Its Discontents: Lessons from College Students with Below-proficient Skills

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Introduction

This paper will describe a collaborative research project funded by the Institute for Museum and Library Services that focuses on developing effective and innovative information literacy instruction for community college students with below-proficient information literacy skills levels. The paper will focus specifically on the criteria for intervention. This intervention is innovative because it is based not on specific attributes of information literacy as defined by information professionals, but on qualitative data gathered through interviews and focus groups conducted with below-proficient students.

Background

In spite of the increasing emphasis on information literacy skills in the K-12 environment (AASL, 1998, 2007), many students continue to arrive at college with below-proficient information literacy skills levels. The Educational Testing Service (ETS), for instance, found that of 3000 college students and 800 high school students only 13% proved to be information literate, as determined through a test (Foster, 2006). Moreover, a longitudinal study at the University of California Berkeley discovered that college students often report much higher self-assessments of their information literacy skills than they are actually able to demonstrate through testing (Maughan, 2001). Competency theory (Kruger & Dunning, 1999) suggests that people who operate at a low skill level in a given knowledge domain may have difficulty in being able to recognize their skill deficit. Evidence indicates that competency theory applies in the domain of information literacy (Gross & Latham, 2007).   Understanding more clearly the discrepancy between some students' self-assessments and their actual skill levels can lead to the development of innovative and effective instruction to help ensure that below-proficient students will gain the knowledge and skills they need to become information literate and be successful in school, work, and their personal lives.

Attaining Information Literacy Project

The purpose of the Attaining Information Literacy Project is to identify first-year community college students with below-proficient information literacy skill levels and to develop innovative and effective instruction for those students.   The project is informed by three frameworks: competency theory (Kruger & Dunning, 1999), the imposed query model (Gross, 1995), and Bruce's (1997) relational model of information literacy. The project has been guided by the following broad research questions:

1. What are first-year community college students' perceptions of information literacy?
2. What are first-year community college students' views of their own information literacy skills?

3. What are first-year community college students' perceptions of how information literacy is best attained?

Methodology

Data collection has involved both quantitative and qualitative methods. The Information Literacy Test (ILT) (James Madison University, n.d.), a web-based, 60-question multiple-choice test, was used to identify below-proficient students. Fifty-seven of these students were recruited for semi-structured interviews in spring 2009. During the interviews, students were asked to describe an information-seeking task for school and one based on personal interest or need, and to compare the two experiences. They were also asked about the skills they felt were needed to be an effective information seeker, and were asked to assess their own skill level as well as that of their peers. In addition, they were asked how they have learned what they know about finding, evaluating, and using information, and how they would like to learn new skills.

In fall 2009, 64 additional below-proficient students were recruited to participate in six focus groups (three at each of the two participating community colleges). As in the interviews, these students were asked to describe an information-seeking task for school and one based on personal interest or need, and to compare the two experiences, and they were also asked about the skills needed to be an effective information seeker. However, the emphasis of the focus groups was more on experiences with and preferences for instruction. Accordingly, students were asked to describe an effective instructional experience they had had, to discuss their preferences for instruction, and to describe what would motivate them to attend information skills instruction.

Based on data gathered from the interviews and focus groups, the research team has developed criteria for an innovative information literacy intervention that will address the needs of non-proficient students.

Innovating IL Instruction

This paper will focus on the unique approach this project is taking in developing information literacy instruction for students with below-proficient skills. Specific innovations include:

1. **Using an evidence-based approach** in order to better understand the characteristics and needs of the target population. This has been accomplished through interviews and focus groups with students who have below-proficient skill levels. Data gathered from the interviews and focus groups has been used to inform the design of the information literacy instruction.
2. **Focusing on issues of perception**. Using Bruce's relational model of information literacy, we have investigated students' perceptions of information literacy. Using Kruger and Dunning's research on competence, we have investigated students' (mis)perceptions of their own IL skill levels. Evidence suggests that students do not see IL as a discrete skill set, and they have inflated views of their own skills levels. Successful instruction will have to address both of these issues.
3. **Questioning society's assumptions about the innate abilities of Millennials**. Our research suggests that not all Millennials are proficient in using technology and finding, evaluating, and using information. Widespread misconceptions about Millennials being sophisticated technology users and information consumers is, we believe, having a detrimental effect on the way information literacy is taught (or not taught) to these students.
4. **Developing instruction that is student centered**. Using Gross's model of the imposed query, we have designed multi-stage instruction that begins with self-generated information seeking and then attempts to bridge the gap between self-generated and imposed information seeking. Based on data gathered in the focus groups, we are incorporating the use of small groups, hands-on practice, and incentives into instruction.

Significance

The primary outcome of the project will be an effective and innovative information literacy intervention based on the needs, conceptions, and experiences of below-proficient students. This project has the potential to inform the way information literacy instruction is designed in academic, public, and school libraries, as well as the way instructional methods courses are taught in LIS schools.

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Information Seeking Experiences of the Post-Secondary Distance/Online Student

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This paper, based on a doctoral study, will present the findings and methodology used in an exploratory qualitative inquiry that investigated the shared and diverse information seeking experiences of post-secondary distance/online students. Emerging themes from the analysis are revealing rich, diverse experiences that differ from and challenge some previously held assumptions of distance learners and their experiences with information seeking.

Literature from the LIS discipline discussing distance learning tends to focus on effective service provision with little attention to information seeking behaviour, diversity of those experiences, or diversity of the learner. Although some research has investigated facets of the distance learning experience such as anxiety, uncertainty, information seeking behaviour, information literacy, online tutorials, (studies by Van de Vord, 2010; Brumfield, 2008; Boadi and Letsolo, 2004; Morrison and Washburn, 2004; and Collins and Veal, 2004, for example), the topic of information seeking as experienced by distance/online students is an under-studied area that invited investigation. While information seeking research conducted with post-secondary students might be generalized and applied to the information seeking experiences of distance learners, much of the distance literature emphasizes that learning experiences for the distance student is distinct from the traditional on-campus student, again suggesting that investigation is warranted.

With these assumptions: the participants are the knowledgeable informants of their own information seeking experiences, the distance/online learning environment is distinct from the on-campus learning environment, the information seeking experiences of distance learners are different, and the distance/online setting may contribute to a sense of isolation or create disadvantages or marginalization, the purpose of this study was to: a) investigate information seeking experiences from the perspective of the distance student; b) describe and interpret how the experiences are appearing in the information behaviour; c) describe and interpret the structures, and underlying themes and contexts of the essential experience; d) elucidate the barriers that hinder accessing and seeking information; and e) describe and interpret strategies employed in information seeking experiences.

This exploratory qualitative inquiry builds on existing LIS information seeking theory and research (Erdelez, Bates, Kuhlthau, Savolainen, Chatman, Mellon, Williamson, Dervin, for example) with a methodology drawn from ideas associated with hermeneutic phenomenology and communicative action (derived from critical theory). Phenomenology is a study of the lifeworld with the intent to provide understanding and a description of a lived experience from the perspective of the individual(s) living the phenomenon (see Budd, 2005 who makes a strong argument for applying this philosophy to information seeking research; and Van Manen, 1997, and Kvale, 1997, both of whom discuss approaches for phenomenological research). Hermeneutic phenomenology, a branch of phenomenology, emphasizes the interpretative role in the exploration, elucidation, and description of the everyday lived experiences of the individual(s) who share a specific phenomenon about which very little is known. Communicative action, derived from critical theory, assumes that certain groups in society are privileged over others and challenges social or cultural traditions (Benoit, 2002; Sundin and Johannisson, 2005, Hansson, 2005).

Within this context and taking this approach, information seeking behaviour is understood to include ways in which the informants approach information seeking, make sense of information seeking, acquire information incidentally and purposefully, strategies used, reactions, feelings, evidence of decision making,

uncertainty, anxiety; however, this did not preclude other types of experiences and/or behaviours that emerged. With this context, the concepts of "experiences", "everyday lived experiences" and the "experiences of the everyday life world" are understood to be the purposeful or incidental encounters, tasks, activities, practices, and occurrences involving interactions with information by distance students that are related to, but not necessarily restricted to, their academic lifeworld. The academic lifeworld is primarily understood to be the informants' engagement with academia, but also overlaps with and includes information seeking experiences related to employment and/or personal life. The academic lifeworld is also understood to be the physical setting, community, or environment within which the individual informant is operating.

Recruitment was purposeful and snowball sampling through two post-secondary institutions in British Columbia; 17 individuals of diverse backgrounds and situations participated. Data collection consisted of semi structured interviews, video-taping of an information seeking event that was discussed after the event (verbal protocol analysis, Branch, 2000, 2001), participant reflexive journals submitted within a few days to a couple of months after the interviews. Recorded interviews were transcribed and data were analyzed in an approach appropriate for the tradition of inquiry: iterative, use of textual methods, condensation of meaning, meaning through narratives, and interpretation of meaning, moving to and building conclusions.

The lack of research investigating the diverse experiences with information seeking of distance students represents a gap in the information seeking and distance library services literature. This study provides insight into the information seeking experiences from the perspective of the distance learner, promotes advocacy, informs policy and practice, and offers opportunities for further research. By focusing on the voice of the distance student and drawing on the ideas associated with hermeneutic phenomenology and communicative action, this qualitative inquiry contributes a new and unique perspective to the LIS information seeking literature.

1. Systems design as if information mattered

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Overview

The question of what constitutes proper computing skills for LIS students has been a core curricular issue for several years already. Both inside and outside the field, various concepts have been offered, including information technology (and digital) literacy, fluency, and skills (NRC 1999; AAUW 2000; ACRL 2000; Brandt 2001; Bawden 2001; Marcum 2002) . Furthermore, the pedagogical methods most appropriate to effectively imparting these concepts are similarly controversial, from courses in programming, to LIS-specific overview of the computing landscape. These experiments and discussions take place alongside debates within the computer science community over the definition of core dimensions of computing knowledge, and calls for broad dissemination of "computational thinking" across all disciplines. (NRC 2010).

This paper reports on the systems design course taught in the Department of Information Studies at UCLA. The course is premised on the ideal that *designbased research methods* can help students in LIS programs develop complex understandings of fundamental computing concepts, existing information systems, emerging technologies, and of their interplay with users in real-world situations.

Design-based research methods are particularly appropriate to the development of modern information systems and services, where the physical form of computing is no longer restricted to the mainframe or the desktop. Computing devices may today be directly and transparently embedded into the environment, gathering data from a wide range of sensor types, communicating wirelessly with users and with other devices. Given this much large space of design, it becomes essential to learn more about the networks of activities and relationships within which devices and services will be used, about how they will "fit" into the world around them, on multiple levels — ergonomic, cognitive, institutional, economic, etc. (Agre 2000). The skills necessary for this work of contextualization (including empathy, communication, and collaboration), are not primarily technical, and, in fact, quite compatible with the humanities background of many LIS professionals.

The course is structured around three key elements: a studio-based pedagogical framework, an emphasis on observing information "in the wild," and the technical ability to "read" information systems.

2. Studio-based pedagogy

In his critique of university-based professional education, Schön (1998) suggests the architectural studio might serve as an exemplar for invigorating professional education in other disciplines. Schön understood the studio as a site for a different kind of pedagogical practice, one that has managed to survive the dominant model of technical rationality that views professional education as the application to practical situations of abstract (scientific) principles. Instead, Schön argues the architectural studio "exemplifies a particular kind of inquiry, designing, which I conceive as a kind of making, a making of representations of things to be built." (Schön 1984, p. 2) For Schön, professional expertise is not reducible to abstract principles, but rather, is exemplified by "knowing-in-action, this capacity for intuitive and spontaneous performance, that comes into play in the uncertain, unique, and conflict-laden situations." The studio process thus

serves as a pedagogical vehicle for communicating this particular and largely inarticulate form of expertise.

The course therefore uses as its most basic vehicle the kind of critiques and discussions common in the design professions: the basic mode of delivery for the class is a series of group presentations and critiques based on an ongoing group design project in a broad domain that students have selected.1 At each biweekly presentation, group members present their framing of the design problem and their proposed solutions. Framing of the problem will typically rely on historical documents, photographs, interviews, and survey results, while solutions rely on sketches and prototypes. Each group receives a limited time to summarize their research and thinking, with half of each critique reserved for questions from the class and the instructor, who represent stakeholders and clients.

The result is that students are forced to master complex facets of the domains they have selected: they must explain quickly and completely how they might use technology to address the needs of users, how they have accounted for different use cases, what resources would be required to build the systems they propose, and how these would interact with legacy systems. Since every member of the audience is also a system designer, the critiques tend to be fast, intense, and revelatory, and designers cannot avoid addressing the messy, conflicting claims and information needs of multiple constituencies.

The course relies on *rapid prototyping* rather than finished mock-ups or elaborate software maquettes. This helps students think through the design problems and provides evidence of their thought to the larger group, without demanding investments in tools with intensive learning curves. Students use basic building blocks to visualize their proposed design, be it a graphical user interface, a new hardware device or a software component. The emphasis here is on strong

1 In the 2010 edition of the course, students designed information systems relative to home cooking, riding the bus, meeting new people, shopping for food, and annotations for Google books.

3

conceptual thinking first, followed by whatever technical research might be required to actualize a design, followed by further refinement of prototypes. The result is a focus on an iterative design process rather than a static, predictable solution.

Observing information "in the wild"

Buckland (1991) has noted "the literature on information science concentrates narrowly on data and documents as information resources." The course adopts a broad view of information resources, as potentially realized in a wide range of physical phenomena. For example, Hutchins (2003) describes "thinking strategies that involve the interaction of mental structure and material structure," such as standing in line for movie tickets: it is the organization of bodies in space together with the conceptual structure of linear order that together constitutes this familiar information system. One objective of the course is thus to sensitize course participants to the manifold ways in which information may be encoded in the environment, beyond the computers displays, signs, and documents that constitute the more conventional understanding of information systems. Routines as familiar as shopping in a supermarket demonstrate our ability to expertly decode vast amounts of such physical clues, and the fundamentally active nature of perceptual processes (Noe 2004).

Sketching furthers leverages action in perception, by providing an experimental method for visual cognition. Using the simplest of graphical forms—lines, arrows, text—sketches serve both as "an aid to thinking" and "a means of working through a design" (Buxton 2007). Students are thus required to sketch rough schematics, processes, flowcharts, or any other aspect of the information

systems they have conceived and to present these sketches to the class during their biweekly critiques. Expressing their ideas in simple visual terms requires students to refine and distill proposed designs to their most relevant dimensions. This avoids the tendency to focus on aesthetics or finished designs at the expense of experimentation and tinkering.

"Reading" information systems
Systems design never proceeds from a blank slate, but rather, must contend with the existing hardware and software infrastructure, including operating systems, network architectures, and metaphors for human-computer interactions. The enormous complexity of this infrastructure is managed through the principle of modularity, a design strategy that breaks down complex systems into independent units that communicate in prescribed ways through their interface (Ulrich 2007). The development of new information systems and services thus requires the essential ability to "read" the existing software and hardware architecture, and identify opportunities for innovation that leverage this infrastructure.
In addition to developing their abilities to analyze the current technological state of the art, students also develop their forecasting skills, the ability to identify the likely technological state of affairs five or ten years in the future. This involves
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not only the development of computing resources (processing, storage, communications), but the more subtle process of infrastructural evolution.

Conclusion
Design-based research methods provide an alternative strategy for imparting essential computing skills to students, and stimulate their capacity for innovation. Given the complex contexts for the deployment of modern information technologies and services, such methods provide students with complex and nuanced understandings of how systems have addressed the needs of users (if they have at all), where confusion arises, where new technology might be helpful, and where it might be intrusive, inefficient, or biased.

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Driven Adaptation: A Grounded Theory Study on Licensing Electronic Resources

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Compared to many other established areas of library practice, licensing electronic resources is relatively new: it became a common practice in academic libraries in the late 1990s. As the amount of electronic resources increases, the role of licensing has grown increasingly important. In the past few years, more LIS education programs have added specialized courses on e-resources acquisition and management to their curricula. However, the current LIS literature is mostly anecdotal in nature and is not sufficient in explaining the organizational behaviors associated with licensing, which suggests that more theoretical research is needed to understand licensing work and improve future librarians' competitiveness.

This study aims to theorizing and generalizing the licensing of electronic resources as an emerging area of specialization in the library field, as well as librarians' major concerns with respect to licensing/ acquisition of electronic resources in the academic settings. In this study, licensing work refers to librarians' practice of reviewing license agreements and negotiation with publishers and information vendors. Licensing librarian, a convenient term, is used to refer to librarians who are responsible for licensing work in their institutions. The actual titles of these librarians may vary: electronic resources librarian, electronic resources coordinator, and electronic services librarian, to name just a few.

The classic (Glaserian) grounded theory approach is used in this study. The grounded theory approach applies inductive methods to generate theories (either substantive or formal) from empirical data. This approach is especially suitable for this research project because licensing is a relatively new research area that lacks theoretical and systematic analyses. Therefore, a good way to theorize licensing work is to systematically collect data from the field and use the collected data as the source for understanding, explaining, and generalizing the major concerns in the field, instead of forcing data into preconceived theoretical frameworks.

The data collection and analysis included three stages. In the first stage, a pilot study was conducted in a comprehensive research university in the Midwest with a large faculty and student body. The author interviewed five academic librarians whose daily work involved dealing with licensing issues. These interviews were conducted in a non-structured fashion, recorded with a digital recorder, and then transcribed manually into MS Word documents. The author then printed out and manually coded the transcript data. During and after the process of pilot study, the author conducted open coding and free memoing, in which many potentially useful codes emerged.

Based on these codes, the author generated a semi-structured interview protocol. The author then recruited participants from the Electronic Resources and Libraries (ER&L) conference, a specialized meeting where the electronic resources librarians gather every year. All the potential participants' job responsibilities involved licensing, and eighteen participants were purposefully selected to include representatives from public and private academic libraries with different FTE sizes and library budgets. While collecting data by conducting face-to-face and telephone interviews with these participants (each ran 30-70 minutes), the author first continued with substantive coding, and soon started theoretical coding. Coding, memoing, sorting, and constant comparison were conducted with the help of the qualitative research software NVivo7. In the data analysis process, a few major categories were discovered, which became the candidates for the core and sub-core variables.

The final stage of data collection and analysis focused on the already emerged major categories and variables. The author recruited potential participants from the 2010 ER&L conference. Nine of the volunteered participants were interviewed before the variables reached theoretical saturation. In this stage, existing literature was also analyzed as data. It was constantly compared with and then incorporated into the existing categories.

Through the data analysis, the core variable, driven adaptation, gradually emerged, which explains and theorizes the social process of licensing and the major concern in licensing work—adapting to the new, constantly changing library practice. The adaption process is both internally and externally driven. Adaption is also continually taking place because of the evolving nature of the licensing practice and the larger context of

organizational transformation. Driven adaption has five stages: imposed changes, coping, positioning, aligning, and expertizing. Driven adaptation first starts with imposed changes—changes forced upon a field by external factors. The licensing business model widely adopted by the information industry created conflicts between librarians and publishers. Licensing librarians has learned to negotiate for their patrons' interests. As licensing is still evolving, licensing librarians use multiple strategies to cope with changes and adapt to the new practice. While coping with specific challenges, licensing librarians also position themselves and recognize the status of licensing work in their own institutions. Realizing licensing work is a service to the institution and its user community, as well as a business with publishers and vendors, licensing librarians has to make the most balanced decisions when dilemmas appear. Licensing librarians also align with co-workers and colleagues, both in the same institution and in other institutions, to achieve adaptation. They seek peer-support, reach out to patrons and colleagues, and participate in library consortia to consolidate their work. As a result of all the efforts, licensing work becomes increasingly specialized, and licensing librarians gradually establish their expert status, and licensing work on the professional level is developing towards normalization.

The concept of driven adaptation explains the major concern in the licensing work: how licensing librarians adapt to the licensing work and how they handle the challenges in the relatively new area of library specialization. It identifies the behaviors practitioners engage in as they cope with licensing work. Findings of this study may help new electronic resources librarians adapt to licensing work more effectively and help existing licensing librarians improve their competitiveness. Understanding licensing work is also essential for LIS education: the findings may help LIS educators better design related courses for future licensing librarians. The concept has the potential to be expanded and generalized into a substantive theory that explains the creation and assimilation of new areas of library specialization within the context of constant changes and organizational transformations.

Government Information Librarianship Education in the 21st Century: Issues and Considerations

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The continued growth of electronic government (e-government) services raises many fundamental questions about the nature of government information, as well as its management, dissemination, access, and preservation in traditional libraries. Yet the rapid rise of e-government has left little time to consider how to reconcile the traditional approaches to government documents librarianship with the technologically-enabled capacities of e-government. This is particularly challenging given that traditional approaches to government information librarianship found in most Library and Information Science (LIS) graduate programs remain focused on a civic culture that still assumes a paper and print world (Jaeger, 2008).

The importance of widely distributed and accessible government information in a democratic society, along with an informed citizenry to actively participate in civic obligations, has been recognized since the inception of the American republic. In 1813, Congress authorized the first organized federal dissemination of printed legislative and executive publications to selected state and university libraries along with some historical societies. Over the next 150 years, through a series of refinements and expansions of the "depository library" concept, the Federal Depository Library Program (FDLP) grew to include more than 1,200 libraries that receive both digital and printed sources produced for the public by the federal government. And although nearly a century of bibliographic practice and tradition has helped generations of librarians include these important civic information sources in their collections, there remain significant new challenges to government information librarians who must practice in a digital world – and some recommend significant changes to the FDLP (Schonfeld & Housewright, 2009). Many of these challenges demand that 21st century librarians find new ways to resolve questions about the preservation, public access, authenticity, integrity, and privatization, with a wide range of laws affecting the publication of government information (Jaeger, Bertot, & Shuler, 2010; Quinn, 2003).

Any future program of government information education in LIS should provide a deep understanding of how e-government services challenge a coherent continuum of public access, authenticity, and integrity to ensure the same vibrant civic participation anticipated by the republic's founders over two hundred years ago. However, thus far, policies and education programs about e-government information services focus heavily on the facilitation of increasing the amount of information and expanding the services, and less on issues such as preservation or management. And, as announced by GPO at the 2010 Fall Depository Council Meeting, 97% of government documents are born digital.

The relationship between libraries and e-government has been debated over the last 15 years. In particular, since the GPO Access Act was signed into law in the early 1990s, the Government Printing Office (GPO) issued a series of reports that clearly outlined its goals and purposes for an increasingly electronic depository system (GPO, 1993). For libraries and GPO, technological evolutions allow for more flexible organizational structures through which the depository libraries could reach out to their users, organize digital information identified by GPO for inclusion in the depository library system, and shift the program's focus from one based on collections to one based on services. GPO issued a major analysis of these challenges, specifically addressing the opportunities for a digital environment depository libraries might share (GPO, 2008).

There are clear differences in approach to, format of, and context for government information in these traditions. The confluence of traditional government documents and e-government raises serious questions for government agencies, librarians, researchers, and LIS education programs:

- Should e-government librarianship serve as an extension of the traditional government documents approach, albeit one that provides more types of content than just information? Or

- Should e-government librarianship be subsumed by the older tradition, so that government documents are merely one aspect of e-government at this point? Or

- Are they co-equal and interrelated concepts that must be better understood within a mutual context of availability, access, dissemination, preservation, and service?

These questions pose tremendous consequences for the professional activities of government documents librarians and preparation of future librarians.

Recasting LIS Education Regarding Government Information

The College of Information Studies at the University of Maryland received a Laura Bush 21st Century Grant in July 2009 to develop an E-government Librarian program to address the questions and issues raised by the current context of government information librarianship. The first 20 students began coursework in the Fall 2010. The developed curriculum links the practice of librarianship and research challenges demanded by the changing government information formats and distribution schemes framed by governments that expect to reach out to their communities primarily through the World Wide Web. The program entails four key components that will educate the next generation of government information and e-government librarians:

- **Coursework**. The coursework will serve as the intellectual and conceptual basis for the evolving government information environment.
- **Practice**. Through internships with the GIO program participants, students will develop applied government information skills.
- **Professional**. By bringing students together annually to attend the spring Federal Depository Library Council meeting, students will become integrated into the larger government information community and engage key issues in government information.
- **Scholarship**. Through inclusion in the review and manuscript development process of *Government Information Quarterly*, students will publish government resource reviews, contribute to furthering scholarship in government information, and learn the publication process.

This paper will discuss the development of the curriculum, program structure, and implications for the future government information librarianship context.

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Mentoring the Future Professorate in LIS: A modeled approach

Maurice Wheeler, Elizabeth Figa, Janet Macpherson, Jeff Allen

Introduction

Higher education is soon expected to experience a large wave of retirements of faculty who began their careers as a result of the expansion of Higher Education and student funding in the 1970s. Despite having successfully completed the PhD, many of today's doctoral degree graduates may not be prepared to fill vacated and newly created positions in the professorate.

In 2010, the academic landscape faculty will populate is significantly different from that of their predecessors who educated and acculturated graduate students in a fashion similar to their own education. Thus, today's doctoral graduates will be required to possess a significantly different range of skills and knowledge. Notwithstanding tremendous evolution in globalized society and higher education, graduate education has not markedly changed the way that future faculty is educated and trained. In recognition of this deficiency, the Preparing Future Faculty (PFF) program was launched in 1993 by the Association of American Colleges and Universities (AAC&U) and the Council of Graduate Schools (CGS). (Adams 2002) Over fifteen years later, the need is still significant. In recent years, the U.S. Institute of Museum and Library Services has granted millions of dollars toward preparing the next generation of Library and Information Science educators.

Future Roles

Faculty of the future will be expected to work independently and assume the full responsibilities of research, teaching and service upon appointment. Research has clearly documented the growing impact of the mismatch between PhD graduate's training and the broad range of academic responsibilities new faculty face. (Austin 2002) Possessing in-depth knowledge of their field of specialty and strong research skills are no longer sufficient to assure the success of the next generation of faculty. The manner in which LIS education seizes the opportunity to address the preparation of its future professorate will have a significant impact on junior faculty success and advancement in profession.

Curriculum development for the future of the profession must engage innovative educational models that are useful across disciplines and facilitate the global mobility of future LIS faculty. Doctoral students who are broadly prepared with a strong subject knowledge base as well as solid teaching and research skills will find it much easier to locate positions where they can be successful in a variety of roles. Helping new faculty develop a cognitive model of the full scope of faculty life (from politics to promotion and tenure) is a skill set that can be learned to help them secure a faculty appointment and succeed. Educators must be challenged to reshape LIS graduate programs, curricula, and practical experiences to provide graduating doctoral students with a map for success.

Mentoring Model for the Next Generation of LIS Faculty

For many years the attrition rate of doctoral students has been in the alarming range of 50%. (Smallwood 2004). More troubling is evidence that women and people of color in doctoral programs leave at an even higher rate. Yet, Neetles and Millett report research results that indicate positive affects toward completing the PhD that result from a substantive mentoring relationship. Moreover, they reported that 70% of doctoral students who graduated had the support of a mentor. (Neetles and Millett 2006) There are many reasons why mentoring works, and centuries of evidence provide testament to the need for and the value of engagement on a deep personal and professional level. Effective development of the future professorate requires a more engaged and deliberate approach to mentoring that is based on goals and learning objectives, and is a recognized and expected part of the process of educating doctoral students.

Although prior to the mid 1990s there was not significant coverage in professional literature on the subject of training doctoral students for the professorate, there is currently a substantial theoretical and pragmatic basis

for establishing developmental practices that achieve the kind of preparation needed by future faculty. The academy has a long history of using the *apprenticeship model* for training and development of future faculty. That model, over time, has served the professions well, but with the passage of time has shown deficiencies.

The primary model emanating from the PFF initiative begun in the early 1990s addressed some of the deficiencies inherent in the apprenticeship model. Most importantly, greater emphasis was placed on recognizing the importance of doctoral students developing teaching skills. Many institutions also expanded their approach to scholarship, and thus to research, after Boyer published *Scholarship Reconsidered* in 1990. The definition of and approach to scholarship and research continue to evolve, currently embracing practical and applied research, interdisciplinary and collaborative research.

This paper presents a model for doctoral student development that reframes the traditional apprenticeship model and focuses on best practices and outcome-based formally structured mentoring processes. The model uses a holistic approach in that it is designed to address the full range of activities and developmental needs that will foster junior faculty success in the first few years of their careers as faculty. Particular emphasis has been placed on activities and experiences addressing areas that have proven to be the most challenging aspects of transition from doctoral student to successful faculty life.

The model is based on the University of North Texas College of Information community of practice and the collective experiences of the authors. The presentation will include:

- A formal presentation of the model

- An overview of the College philosophy of doctoral education

- Empirical data gathered from a faculty-driven study of doctoral students in the Department of Library and Information Sciences who participated in a "Professors of the Future" mentoring program

- Ethnographic reflections by a senior faculty member in the Department of Learning Technologies who has developed creative opportunities and pedagogical strategies for mentoring doctoral students for over 15 years

- Student engagement and student evaluation

- Programmatic strategies

- Lessons learned and summary

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Are We There Yet? Library and Information Studies Students' Perceptions of Their Level of Cultural Competence

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FINAL ABSTRACT
Library and Information Studies (LIS) professionals are increasingly called upon to serve individuals from diverse cultural, ethnic and linguistic backgrounds. In order to effectively provide services to these individuals, those entering the field must be adequately prepared via their LIS coursework and experiences to understand and address the information needs of various cultural groups.
As described by Patricia Montiel Overall, cultural competence as it relates to the LIS profession is:
The ability to recognize the significance of culture in one's own life and in the lives of others; and to come to know and respect diverse cultural backgrounds and characteristics through interaction with individuals from diverse linguistic, cultural, and socioeconomic groups; and to fully integrate the culture of diverse groups into services, work, and institutions in order to enhance the lives of both those being served by the library profession and those engaged in service (Overall, 2009, p. 190).
The purpose of the study is to collect data from students who have completed at least 15 credit hours in an ALA accredited LIS program. Questionnaire items were designed to allow research participants to reflect on the level to which their LIS coursework prepared them to become culturally competent library practitioners. The primary research question this study seeks to answer is:
How well do LIS students feel they are prepared to be culturally competent practitioners who can understand and serve the needs of ethnically and linguistically diverse library communities?
The related sub questions are:

1. How do these students describe their inward and outward perspective of their level of cultural competence?
2. What, if any, gaps can be seen in students' minimum, desired, and perceived expectation levels for being taught how to become culturally competent library and information science (LIS) professionals through their LIS coursework?

The researchers utilized Overall's conceptual framework to develop a survey instrument that called for LIS students to reflect on their inward perspectives (which refers to levels of development within the individual becoming culturally competent) and outward perspectives (which represents levels of development at the institutional level) regarding their level of cultural competence. Following development of the survey instrument, the researchers conducted a web-based survey. Items that appeared on the electronic survey instrument were designed to collect information about the extent to which the students felt that their programs had prepared them to effectively serve library patrons from a variety of cultural backgrounds. In addition to items that collected demographic data, the questionnaire contained items that allowed students to use a Likert-type scale to indicate:

1- The **minimum** level of cultural competence they expected (or would tolerate) from their LIS coursework,
2- The **desired** level of cultural competence they hoped to gain from their LIS program, and
3- The **perceived** (actual) level of cultural competence they experienced in their LIS program.

Data collected from the survey generated both quantitative and qualitative information that described the ways that two specific LIS programs are currently preparing students to become culturally competent. A gap analysis was performed on the data to ascertain the differences between how culturally competent students think they are personally and how well they feel their coursework prepared them to be culturally competent LIS practitioners. A gap analysis is normally used in business and economics to help a company to compare its actual performance with its potential performance. At its core are two questions: "Where are we?" and "Where do we want to be?" In the proposed study, a gap analysis was useful for helping to uncover pre-service LIS

students' perceived levels of cultural competency and identifying gaps in the LIS curriculum that students feel may have impeded them attaining a more desired level of cultural competence.

The researchers' analysis of the survey data yielded insight about ways that LIS programs might expand their curriculum in order to help students gain more skills in cultural competence. More specifically, study results presented LIS students' perceived levels of cultural competence and the areas or gaps in the curriculum that could be improved to help increase their current levels. This study adds to the literature that provides relevant data for LIS faculty, administrators and other interested parties to digest and disseminate with the objective of improving the curriculum of LIS schools with regard to building cultural competence among future library professionals.

Nurturing Competitive Competence from the Cradle: A Baseline Assessment of Early Literacy in Three and Four Year Olds

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Starting in the cradle, children must be exposed to specific language and literacy practices in order to improve their later competitive competence as readers (Kuhl, 2010). The National Early Literacy Panel (NELP)'s *Developing Early Literacy*, a synthesis of the most relevant early literacy research for children birth through age five, was commissioned by Congress in 2002 and was released by the National Institute for Literacy in January 2009 (http://www.nifl.gov/nifl/NELP/NELPreport.html). The results of this NELP study of early literacy research, during which more than 8,000 research studies were examined and reduced to the 500 most salient, provides solid data about what skills and abilities are most significant for young children who are emergent readers. These principles and those in the earlier National Reading Panel (NRP) *Teaching Children to Read* (see http://www.nationalreadingpanel.org/Publications/publications.htm) have been incorporated in innovative library training materials and storytime practices.

However, in its conclusion the NELP Report calls for substantially more high quality research to determine successful interventions to improve early literacy. Library related literacy research was not mentioned at all in the NELP report, largely because there is no research that meets its rigorous standards.

The research reported in this paper begins to fill this void. It brings together innovative early literacy practices in public librarianship and an innovative method to measure the literacy skills of preschool children and pinpoint need for improvement. It establishes a baseline of what the children in the study know without exposure to caregivers who are specifically trained in early literacy principles and it informs daycare teachers, parents, and the public library system partnering in this research where training needs to be focused. Ultimately it helps measure a type of competitive advantage that children do or do not have at a mid-point in their preschool years and provides information and opportunity for their public library to partner with their daycare workers and parents to intervene in a positive manner.

This study took place in Pierce County in the state of Washington in the spring 2010. It was funded by the Boeing Corporation and by the Pierce County Library (PCL). The Pierce County Library contracted with researchers from the University of Washington (UW) to participate in the assessment of the knowledge of early literacy principles of children studied. The children were three and four years old at the time of data collection, and all children were attending in-home daycare. The Tacoma-Pierce County Child Care Resource and Referral (CCRR), a nonprofit agency that registers, certifies and refers parents to licensed childcare in Pierce County, encouraged in-home providers to participate in the study. Children with in-home daycare workers were chosen for the study because evaluative research conducted through the American Library Association (ALA) shows that these children are the least likely of those in daycare to be exposed to early literacy principles that predict later success in reading. According to the Washington State Department of Early Learning, family childcare providers attend to half of all children registered in childcare in the state.

Forty-seven in-home daycare workers volunteered for the study. The researchers randomly assigned the daycare workers to experimental and control groups. Ninety-five children from the experimental and control groups were tested. Numbers of children attending the in-home centers in the age range tested ranged from one to ten with a median of two.

This initial study phase, reported and analyzed in this paper, surveyed daycare workers and parents of children involved to obtain potentially relevant data. It established a baseline of early literacy knowledge for each of the children. Six staff members from the PCL conducted the assessments of each child individually. The UW researchers trained those who collected the data; the training included a method that will be demonstrated at the conference to assure reliability of instrument administration.

The instrument used for the assessment is the ELSA (Early Literacy Skills Assessment) and was developed and is distributed by the HighScope Educational Research Foundation and is based on the early literacy skills identified in the literacy reports referenced above. HighScope provides information about the reliability and validity of the test itself.

The literacy principles tested in several ways were comprehension (prediction, retelling, connection to real life); phonological awareness (rhyming, segmentation, and phonemic awareness); alphabetic principle (sense of work, alphabet letter recognition, and letter-sound correspondence); and concepts about print (orientation, story beginning, direction of text, book parts). Twenty-four questions are embedded in a picturebook story read to each child. The assessor had a score sheet on which based on question-by-question scores were cumulated for each of the four principles. Scores were ranked as high, medium and low. Examples of the questions and score sheets are presented with this paper.

In this paper, an analysis of the knowledge that these children possess as reflected in the scores is examined in relation to their age, their daycare situation, the training their daycare workers may and may not have had, and aspects of their home situation. Comparison is made to establish baseline differences in the experimental and the control group. And an analysis of where intervention is most needed with these children is presented. The daycare workers in the experimental group will subsequently be trained in the early literacy principles and will receive support throughout the upcoming phases of the study.

The researchers have encountered intense interest among both LIS students and among professionals in the field in ways to assess the impact of a decade-long effort, spearheaded by the ALA Every Child Ready to Read initiative, to embed early literacy principles in storytimes and to train caregivers in these principles. Students want to demonstrate to employers that they can assess effectiveness; professionals want evidence to be competitive in applying for funding. And all concerned want to know if this effort has positive outcomes for children. This study concludes with a discussion of future research and of implications for use of this innovative technique and the information obtained in this foundational study. (985 words)

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From "Fun See" to "Tien Pao"—A Historical Study of Ethnic Chinese Competition for Representation and Voice in Multicultural Youth Materials

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The United States has come a long way from the absence of people of color in youth reading materials, through a period of stereotypical and caricatured depictions of these people, to today when every year only a small pool of titles are available for librarians to evaluate and to highlight in the various multicultural youth literature awards established by the American Library Association and its affiliates. According to the latest statistics gathered by the Cooperative Children's Book Center (CCBC), University of Wisconsin-Madison, of the approximately 3,000 children's and young adult books received at the CCBC in 2009, 80 had significant Asian/Pacific or Asian/Pacific American content, and 67 books were created by authors and/or illustrators of Asian/Pacific heritage. As the CCBC aptly points out, these still-alarming statistics confirm that books published for youth do not reflect the multicultural world they inhabit; in terms of quality, well over half of the books (of 2009) the CCBC examined about people of color are actually formulaic country-profile books.

This paper is part of my endeavor to fill the knowledge gap concerning ethnic Chinese competition for representation and voice in American youth literature. Nearly all existing scholarship on early Asian American writers focuses on literature for general adult readers (Kim, 1982; Ling, 1990; Yin, 2000), and research on multicultural youth literature is largely interested in works produced after the civil rights movement. Lacking an understanding of the little studied early Asian American youth literature prevents youth services and school librarians from putting contemporary works into a proper historical context. Constructing that history will allow us to see the legacy of pre-civil rights movement Asian American youth literature, and to gain insight into how contemporary works, given their merits and flaws, have negotiated the tradition and burden from the embryonic stage of that literature.

This paper delineates the sluggish development, from the gold rush to the eve of the civil rights movement in the 1960s, of American youth literature portraying ethnic Chinese people, as well as the even slower rise of ethnic Chinese children's authors telling stories about their own people. Using the representation (or lack thereof) of ethnic Chinese wartime experience—particularly the history of Japanese atrocities and war crimes—in postwar American youth literature as a case, I will demonstrate how political forces have contributed to Chinese American children's authors' lost cause in storying war at a time when American youth literature about World War II and the Holocaust continue to make the list of best titles recommended by youth services librarians and taught in school classrooms.

The immigration history of Asians, now the fastest growing race groups in the U.S. according to the Census Bureau, can be traced to the first arrival of Chinese laborers in California in the gold rush of 1848. In a Sinophobic society which preferred to be entertained by "***The Insidious Dr Fu Manchu***" (1913)—the type of characters fitting snugly into what the mainstream culture considered Chinese were like—there existed no ready market for literary creations about the pain, joy, feelings, and thoughts of Chinese as human beings. Nonetheless, youth literature featuring ethnic Chinese—by white authors and for young white readers—slowly emerged and heralded the body of what we define as Asian American youth literature today.

According to conventional understanding, the civil rights movement spurred the development of youth reading materials portraying people of color. However, my study shows that it was during the 1920s that American youth literature about different racial/ethnic/national groups received the first major spur. In the wake of World War I, there was a keenly felt need to bring up a new generation of Americans as respectful and friendly towards the foreign-born and "the people of other nations and races." The topic of the 20th annual conference on children's reading, conducted by the public library in Grand Rapids, Michigan, in 1924, was "National and race prejudice." Speakers and librarians criticized children's books that stirred up racial/national hostility, called for those that stressed "the oneness of the human race," and emphasized that a good public library should be "free from racial, religious and caste prejudice" ("Conference on Children's Reading," 1924).

The 1920s saw the publication of folktales translated from Chinese and fairy tales portraying Chinese people. Considering how Chinese immigrants had been condemned for their heathen belief system and superstitions, it was not a trivial gesture for the American market to welcome Chinese folktales, legends, and fantasy stories featuring Chinese characters. Arthur Bowie Chrisman's fantasy story collection **Shen of the Sea** (1925) even won the Newbery Medal, an award newly established by the American Library Association.

Until the 1940s, white authors dominated the earliest body of American youth literature featuring Chinese. As Imperial Japan's invasion of China increasingly threatened American interests in Asia, eventually uniting America and China as military allies following the Pearl Harbor attack, Chinese emigrants and Chinese American writers took advantage of the widened political space for Chinese topics and increased popular interest in Chinese affairs, publishing autobiographies, fiction and nonfiction about China/Chinese in general and about the war against Japan in particular. Yee Chiang (1903-1977), Mai-mai Sze (1910?-1992), Helena Kuo (1911-1999), Jade Snow Wong (1922-2006), and siblings Adet Lin (1923-1971) and Anor Lin (1926-2003) were among the pioneer Chinese voices in American youth literature.

Conversely, the way ethnic Chinese were (and still are) perceived as perpetual aliens in America made them a politically vulnerable group when U.S.-China relations went sour during the Cold War. Modern China became an ideologically risky topic, either silencing white and Chinese writers or forcing them to choose such "safe" topics as folktales and folk customs, topics devoid of the chaotic political reality of Chinese and Chinese American society. The shaping power of the Cold War on the subject matter of Asian American youth literature is still felt in the domination of the so-called four f's—food, festival, fashion, and folklore—books among contemporary works.

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When Will They Focus on MY Family?: Queer Families Competing for Equal Public Library Services

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Research suggests that it is important for children's self-esteem and psychological development to see representations of themselves and their families in the world around them. According to U.S. Census data, children with queer parents live in 96% of all counties nationwide (Urban Institute and Human Rights Campaign, 2000). Similarly, between 6 and 14 million children in the U.S. live with a gay or lesbian parent (National Center for Lesbian Rights, 2004; National Gay & Lesbian Task Force, 2003). These populations are rapidly growing throughout the country. Do these children see their families represented in the collections, programs, and services at their local public library? Compared to heterosexual families, are queer families receiving *equal* library services?

Recently, a growing number of preschool children have been identified as exhibiting gender variant behavior with boys choosing typical female toys/activities and girls choosing typical male toys/activities (Children's National Medical Center, 2006). These "queer" children, labeled sissies or tomboys by their peers and society, contradict society's gender expectations by choosing toys and play activities associated with the opposite gender. Do these children see representations of themselves in the collections, programs, and services offered at their local public library? Do these children receive *equal* library services when compared to other children?

As the number of children with queer parents and children identified as gender variant increases, the greater the need to learn more about the level of services, collections, and programs that U.S. public libraries offer these groups. Concurrently, the need for public libraries to have training on how to plan services, develop programs, and create quality children's literature collections that represent Lesbian, Gay, Bisexual, or Transgendered (LGBT) characters and families also increases.

Filling a void in previous LIS research, this paper examines the collections of public libraries in cities with large populations of queer parents and significant instances of gay adoptions to determine the library holdings of gay parenting books and children's picture books with queer themes (including gender variant behaviors). At the same time, the study surveys these public libraries to determine the level of services available to queer parents, queer adults participating in adoptions, or children of the aforementioned groups. The investigation further analyzes the implications of integrating queer children's picture books into storytimes and public library programs. This research was partially funded by an American Library Association 2008 Diversity Research Grant.

The Impact of Competitiveness & Innovation in the Development of Disciplinary Identity, 2004-2009

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Competitiveness and innovation are two variables that may affect the development of the intellectual landscape that comprises a discipline. In this paper, innovation is defined as evidence of emergent intellectual structures, and competitiveness as relationships that may affect (constrain or enhance) the development of emergent intellectual structures. We report on a subset of data collected as part of a larger author co-citation analysis (ACA), focusing on authors who are ALISE members and published actively between 2004 and 2009 in four journals with high impact factor rankings in both the area of Information Science and Library Science (LIS) and Computer Science and Information Systems (CIS) as indexed in the 2009 *Journal Citation Reports*. The four journals included in this analysis are: *Annual Review of Information Science and Technology* (ARIST), *Journal of Information Technology* (JIT), , *Journal of the Association for Information Systems* (JAIS), and *Journal of the American Scoiety for Information Science* and Technology (JASIST). Since the journals in this group have high impact across two intellectual areas that map to ALISE research interests, it is reasonable to assume that trends will coalesce here prior to coalescing in other journal groups, and that mapping will therefore reveal emergent intellectual structure(s) earlier than in other journal groups.

The paper compares ACA data for two overlapping groups: 1) the most salient authors selected from all authors publishing in the journal group (which includes some ALISE members), and 2) the most salient ALISE member authors publishing in the same journal group. Comparative analysis will interpret evidence of innovation and competitiveness within and between the two author groups.

White and McCain (1998) state that author co-citation mapping "suggests how authors are commonly viewed on two dimensions, often interpretable as *subject matter* and *style of work*. The poles of the latter might be labeled, e.g., hard–soft, quantitative–qualitative, more mathematical–less mathematical" (p. 329). In this research, we compare the *subject matter* (e.g., school media, information retrieval, digital curation, knowledge management, etc.) and *style of work* dimensions of of the two groups to better understand how competitiveness between clusters of authors may be affecting innovation and therefore the development of disciplinary identity.

According to White (1990), in addition to revealing the overall "cognitive" or "intellectual structure of a field" and the centrality/peripherality of authors to the field as a whole, "author maps show who is central and peripheral *within clusters* representing specialties or schools of thought" (p. 103). In this study, the category "ALISE member authors" is not exclusive since these authors may also belong to other formal organizations, such as the iSchools, ASIS&T, ACM, etc. and may cluster more saliently by *subject matter* and *style of work* with other authors publishing in the journal group than with each other. Therefore, ALISE member authors who are peripheral to the intellectual structure of the field as a whole may emerge as central within structures representing specialties or schools of thought. These authors may be interpreted as representing points of competition that have the potential of coalescing into intellectual structures, or innovations.

Competitiveness is explored through weighting the effect of factors that previously have been shown to affect the development new areas of study. Following White (1990), we examine the effect of nationality, temporal conjunction, teacher-student relationships, collegial relationships, co-author relationship, and common philosophical orientations

The following research questions guide this enquiry:

RQ1: Is there evidence of intellectual structures that may be indicative of an emerging disciplinary identity? (innovation)

        RQ1a: Are central and peripheral clustering evident among the ALISE member authors?

        RQ1b: When compared to all authors, does the position of ALISE member authors change from central to peripheral?

RQ2: Is there evidence of relationships that may affect (constrain or enhance) the development of an emerging disciplinary identity? (competitiveness)

        RQ2a: Are the subject dimensions or style of work dimensions congruent with nationality or temporal conjunction?

        RQ2b: Are the subject dimensions or style of work dimensions congruent with teacher-student relationships, collegial relationships, and/or co-author relationships?

The paper answers the research questions and suggests directions for future research to predict how innovation and competitiveness will affect the development of disciplinary identity in the next decade.