

Cultural Heritage Informatics Leadership Librarians: How An American Library and Information
Science Program is Changing the Course of Preservation in the Digital Age

Porchia A. Moore

University of South Carolina, School of Library and Information, USA

Author Note

Porchia A. Moore, School of Library and Information Science, University of South Carolina;
USA. McKissick Museum Management Certificate Program. University of South Carolina;
USA. This research is supported by a Laura Bush 21st Century Librarian grant under the
auspices of the Institute of Museum and Library Services.

Correspondence concerning this article should be addressed to Porchia A. Moore

School of Library and Information Science, University of South Carolina, USA, 29208.

Contact: moorepa@email.sc.edu

Abstract

An idiosyncratic relationship has always existed between libraries, archives, and museums to function as custodians of cultural heritage. This paper proposes that library and information science schools are uniquely positioned to train professionals with the multi-dimensional skillsets necessary to preserve cultural heritage in the digital age. The paper spotlights the initiative taken by the School of Library and Information Science at the University of South Carolina in the United States to establish the Cultural Heritage Informatics Leadership Librarians or (CHIL) fellows. The CHIL program is the first of its kind and is awarded under the auspices of the Institute of Museum and Library Services' Laura Bush 21st Century grant. The objective of CHIL is to advance doctoral study in the library sciences based on *The Responsive PhD* model developed by the Woodrow Wilson Fellowship Foundation.

The paper explains the advantage of implementing new curriculum in library schools which centers on the digitization of cultural heritage, interdisciplinary coursework, and full-time field placements. The addendum in curriculum provides exploration of convergence issues between museums, libraries, archives, and other cultural heritage institutions with an eye toward mastering subsequent digital technologies that support the development of creative and collaborative learning environments. The paper makes evident that, upon graduation, CHIL librarians are primed to lead innovative projects related to new digital technologies and the development of interactive learning environments in a wide variety of cultural institutions.

Keywords: Informatics, Digitization, Cultural Heritage, Leadership

Cultural Heritage Informatics Leadership Librarians: How An American Library and Information Science Program is Changing the Course of Preservation in the Digital Age

Introduction

It has been suggested that without libraries; we have no past and no future. As we continue to monitor the incalculable ways in which new technologies transform our memory institutions in the 21st century; we must also arrive at the realization that without specialized skillsets and strategies for conservation of cultural memory there will be no one to preserve, organize, and digitize our cultural heritage. Likewise, as we forge ahead into a digital future which is simultaneously, rich with promise and wrought with challenges; we must also arrive at the understanding that policies regarding preservation and conservation of cultural heritage must envision the long-range needs of an emerging workforce. In a 1791 correspondence regarding the urgency of preserving the cultural record and history of America's early documents, American President Thomas Jefferson advocated for widespread dissemination of the cultural record by writing, "Let us save what remains: not by vaults and locks which fence them from the public eye and use in consigning them to the waste of time, but by such a multiplication of copies, as shall place them beyond the reach of accident" ("American History From Revolution to Reconstruction", 2012). Digital technology represents that freedom of fluidity where technology becomes a kind of anti-lock and digital technologies allow memory institutions to preserve our culture so that access to cultural heritage information is multiplied in the infinite.

Nevertheless, while many libraries are focused on addressing *how* information will be accessed in the Digital Age or addressing user's information needs by exploring the efficacy and usefulness of new technological tools such as Virtual Research Environments or VREs; there are two questions which require more urgent attention:

1. Who will be qualified to preserve and conserve our cultural heritage objects in the Digital Age?
2. What specialized skills will be required of librarians and information scientists in order to keep up with the demand for digitization and preservation projects which memory institutions will surely need in the 21st century?

Because a unique relationship has always existed between libraries, archives, and museums to function as custodians of cultural heritage; innovative technologies and new media has exponentially created a synergetic blending between memory institutions, in that, the web serves as a cultural platform which functions as a bridge between these memory institutions. Indeed, in the last five years, memory institutions have significantly integrated their collections and forged innovative partnerships such as the California Academy of Sciences Connecting Content Collaborative Learning Laboratories or the Darwin Manuscript Project at the Museum of Natural History.

In response to the changes in how cultural heritage information in memory institutions is accessed; and the subsequent need for new strategies in providing cultural content to users because of the web, The School of Library and Information Science at the University of South Carolina (USC SLIS) in the United States has instituted an educational initiative called Cultural Heritage Informatics Leadership Librarians (CHIL) or CHIL fellows. The rationale for CHIL is the re-imagining of doctorate-level LIS education so that emerging library professionals address

the increasing convergence between memory institutions; especially those brought on by digitization through new paradigmatic shifts in curriculum. As such, it is the expected outcome that CHIL librarians will possess the multi-dimensional skillsets necessary to preserve cultural heritage in the digital age. The CHIL program is designed to implement fundamental changes in doctorate-level LIS education which trains the CHIL fellow in the acquisition of the following:

- Understanding the complexities and emerging trends regarding the digitization of cultural heritage
- Immersion in interdisciplinary coursework
- Full-time field placements or internships in museums, libraries, and other cultural heritage institutions
- Opportunities to explore digital technologies and social systems that support the development of creative and collaborative learning environments

USC SLIS professor, Dr. Jennifer Arns, and USC SLIS Director, Dr. Samantha Hastings, wrote the grant narrative and secured funding for the CHIL initiative under the auspices of the Institute of Museum and Library Services' 2009 Laura Bush 21st Century grant in response to Priority 2. Priority 2 appeals for advancing doctoral study in the library sciences with the end goal of developing faculty to educate the next generation of library professionals and increase the number of students enrolled in doctoral programs that will prepare them to assume leadership positions in libraries, museums, archives, and other cultural institutions.

The CHIL Program is developed on the experimental suggestions proffered by The Responsive PhD model which is based on action research developed by the Woodrow Wilson Fellowship Foundation. The Responsive PhD model seeks to strategize effective tools for innovation within doctoral education and is structured around four thematic principles:

1. **New paradigms**—which argues that academic research is central to the heart of doctoral education.

What encourages or discourages truly adventurous scholarship?

2. **New practices**—which interrogates how a doctoral education might revolutionize the concept of service as it seeks to make *the application of knowledge* beyond the academy integral to a doctoral experience.

By what means can we make all aspects of doctoral training, including pedagogy, truly developmental?

3. **New people**—argues for the goal of inclusivity in order to address the challenge of meeting the needs of the entire U.S. population, including current and historically underrepresented groups, in the doctoral demographic.

Beyond funding, is there a way to make the sense of the doctorate more socially responsive and less abstract, irrelevant, and more racially inclusive?

4. **New partnerships**—maintains that an essential and continuous relationship between those who create the doctoral process and all those who employ its graduates are connected.

By what means can doctoral education ensure collaborative relationships which extend outside academia?

CHIL: Training Preservationists in the Digital Age

Cultural Heritage Informatics Leadership Fellows complete the first year of study learning the fundamental pedagogy of library and information science which is heavily reinforced with coursework rich in the study of Informatics. In this way, the CHIL Program addresses new paradigms by transcending traditional disciplinary boundaries so that informatics in the context of library and information science examines the relationship between social and

cultural settings and information technologies (Kling, 2000). In addition, we observe CHIL LIS education as a fusion of academic disciplines which seeks to critically analyze information and technology and the way that users create social and cultural environments in order to manage and create knowledge (He, 2003).

In the second year, CHIL fellows satisfy the new practices principle of the Responsive PhD model, in that, fellows explore an interdisciplinary course of study that combines 15 hours of LIS doctoral foundations courses with 12 hours of College of Mass Communications and Information Studies electives and 12 hours of cognate courses selected from outside departments. These include courses offered by the University of South Carolina's McKissick Museum Museums Studies Graduate Certificate Program, the Moore School of Business, the Public Administration Program, and the Public History Program. Fellows choose cognates tailored to their specific interest. Examples of course offerings from these disciplines include:

- Management and Curatorial Practice
- Material Culture Studies
- Historic Site Interpretation
- Human Resources and Business Strategy
- Social Media and Marketing Management
- Administration and Management of Museums
- Museum Exhibition
- Museum Development and Interpretation
- Museum Management
- Collections Development

The twelve hours of College of Mass Communications and Information Studies electives concentrate on digitization, digital humanities, new media, public library service models, audience analysis, information needs and uses, and cross-cultural perspectives in regard to information management.

In the third year, CHIL fellows complete a one semester internship or field study. The field studies can be conducted in a library, archive, museum, or other cultural heritage institution.

CHIL fellows are expected to immerse themselves in digital projects such as 3D scanning, 3D printing, and digital preservation, as well as, identify challenges and problems at their institution with an eye toward thinking about ways that a CHIL librarian might solve these problems. During the second semester, fellows develop and lead a project that addresses problem(s) identified during their field placements. This end goal of this semester is to provide hands-on leadership experience within cultural heritage institutions. In particular, the field studies are important because the study of libraries, museums, and other cultural institutions is considered innately interdisciplinary as fellows attempt “ to analyze and understand the social dimension that emerges when advanced information technology is integrated into an organizational context” (Marty p. Marty, 1999, p.1084).

As a final condition, CHIL fellows are expected to: 1) Collect data for their impending dissertations which take up the real-world needs of a practitioner community and 2) Expose CHIL fellows to specific issues regarding cultural heritage institutions; in particular with an eye towards preservation and conservation in the Digital Age. In this manner, CHIL fellows are provided an alternative to academic employment and are able to seek positions in libraries, archives, or museums. Moreover, the field placements satisfies the fourth thematic principle of the Responsive PhD model; inculcating new partnerships. Finally, in the course of their fourth year, fellows may gain further experience as SLIS Teaching Assistants or chose to return to their field placements while completing their dissertations.

CHIL in Action

There are currently 8 CHIL fellows enrolled at the University of South Carolina. The selection of this cohort fulfills the final thematic principle of the Responsive PhD model; New People. Doctoral education must be cosmopolitan; curriculum must be open to the world, and

reflect the doctorate in totality while actively seeking interchanges with worlds and cultures beyond academia so that social challenges can be addressed with vigor. Furthermore, it is imperative that the selection of CHIL fellows ensures racial diversity. The current CHIL cohorts originate from the following countries: Russia, China, Iran, and Bangladesh. The four remaining fellows are American students of African descent thereby representing a historically underrepresented demographic of LIS doctoral education as the Responsive PhD model insists that doctoral education reflect the racial depth and breadth of the population. For Instance, in the United States, only 7 percent of all arts-and-sciences PhDs awarded by U.S. institutions in 2003 were awarded to U.S. citizens who are African-American or of Hispanic origin. Because those earning advanced degrees comprise one of the largest sources for the nation's future college and university faculty, the next generation of college students must include dramatically more students of color ("The Responsive PhD", 2005).

The 8 CHIL fellows present and attend conferences on the state, national, and international level across the realm of libraries, archives, and museums including: The Museum Computer Network Conference, the Museums and the Web conference, the Allied Media Conference, American Alliance of Museums conference, American Library Association conference, The Joint Conference of Librarians of Color conference, and the Special Libraries Association conference to name a few. In the past three years, CHIL fellows have presented well over two dozen posters and papers. CHIL fellows are published in diverse academic journals across disciplines . In addition, CHIL fellows serve on various boards and collaboratories; and are members of institutional organizations such as the Association of African American Museums, the South Carolina Libraries Association, and the South Carolina Federation of Museums. Moreover, fellows are active in a myriad of caucuses within the field of library and

information science and archives. To conclude, all CHIL fellows are actively immersed in a variety of digitization projects through partnerships with organizations such as the South Carolina Digital Libraries, The HASTAC Foundation, and projects involving 3D scanning and 3D printing.

Conclusion

Recent LIS employment searches reveal that preservation and digitization projects are progressively transforming roles and duties for librarians. For example, we have seen new job titles such as Internet Librarian, Cultural Heritage Librarian, Digital Humanities Librarian, and Digital Preservation Librarian. USC SLIS advocates that the implementation of the CHIL model for those academic institutions invested in the Library and Information Science discipline are poised more than any other discipline to boldly lead cultural heritage institutions into the 21st Century; especially given that the number of museum studies programs has increased (Finner, 2009) without the benefit of these programs being anchored in necessary theoretical underpinnings vital to memory institutions such as information seeking behavior, management, and information systems of which LIS education is intimately familiar.

The CHIL LIS educational model underscores the importance of acting now to develop the workforce of the future. While we know that books and other printed material are in flux in the Digital Age, information is not in flux; and library and information scientists possess the pedagogy, critical theory, and skills to help manage and preserve cultural heritage projects in the Digital Age. Technology is not hurtful to cultural heritage. In fact, as Jon Bertot, professor of Library and Information Science at the University of Maryland and co-director of the Information and Policy Access Center argues “technology has created other demands” (“Progress.org”, 2014) which allows the library to increase their digital services.

The conservation and preservation of cultural heritage as modeled by CHIL magnifies the librarian's ability to create digital stewardship. In researching doctoral LIS education Hastings and Arns (2009) uncovered the alarming fact that:

“The number of doctoral dissertations that draw from both disciplines appears to have numbered less than thirty over the last decade, and without improvements in this situation, the critical theories and shared objectives that unite museums and libraries, as well as the value to be gained through technological collaboration, are unlikely to be readily realized. The knowledgeable and experienced staff needed to analyze problems in these new areas and produce the knowledge base needed to deal with these dilemmas may also be inadequate”

Responsive LIS education empowers practitioners to action. The National Digital Information Infrastructure and Preservation Program at the Library of Congress, reminds us that “the participatory nature of the web has enabled a proliferation of the expression of [these] diverse cultures. As scholars increasingly turn to study this vernacular web, cultural heritage organizations responsible for collecting and preserving folk life and folklore need to develop plans and programs to collect and preserve records of these cultures and communities (“Digital Preservation”, 2014).

References

- American History From Revolution to Reconstruction. 2012. Retrieved April 3, 2014, from <http://www.let.rug.nl/usa/presidents/thomas-jefferson/letters-of-thomasjefferson/jefl88.php>
- Chu, F. T. (2007). Bridging the LIS-practitioner gap: some frames for research. *Library Philosophy and Practice*. Retrieved from <http://www.webpages.uidaho.edu/~mbolin/chu2.pdf>.
- Digital Preservation. Owens, Trevor. 2014. Retrieved May 1, 2014 from (<http://blogs.loc.gov/digitalpreservation/2014/06/register-for-curatecamp-digital-culture-july-24th/>)
- Finner, K. (2009). Review of the book *Museum Careers: A Practical Guide for Students and Novices*, by N. E. Schlatter. *Curator*, 52, 3, 307-309. See also <http://www.museum-employment.com/jobindex.html>.
- Hastings, S & Arns, J. CHIL grant narrative. 2009.
- He, Shaoy. (2003). Informatics: a brief survey. *The Electronic Library*, 21, 2, 117-122.
- Kling, R. (2000). Learning about information technologies and social change: The Contribution of social informatics. *The Information Society*, 16, 217–232.
- Marty, P.F. (1999). Informatics and collaborative technologies: The emerging socio-technological dimension of information science in museum environments. *Journal of the American Society for Information Science*, 50, 1083–1091.
- Sugimoto, C. R., Russell, T. G., & Grant, S. (2009). Library and information science doctoral education: The landscape from 1930-2007. *Journal of Education for Library and Information Science*, 50, 3, 190-202.
- The Responsive PhD. Innovations in Doctoral Education. 2005. The Responsive PhD. PDF Retrieved April 20, 2014 from <http://woodrow.org/news/publications/responsive-phd/>

Williams, Lauren C. How Libraries Can Survive in the Digital Age. Retrieved May 30, 2014
from <http://thinkprogress.org/media/2014/06/12/3447530/what-libraries-look-like-in-the-digital-age/>