

University of Michigan School of Information/Preliminary Proposal

Title: Library as Research Lab: Immersive Research Education and Engagement for LIS Students and Library Professionals

The University of Michigan is requesting \$485,020 in IMLS funds and contributing \$201,193 in Cost Share (Total \$686,213) for a Laura Bush 21st Century Librarian Program Grant. The project will run from October 1, 2017 to the end of September 2020.

Project Team: PI: Soo Young Rieh, Ph.D., Associate Professor and Program Director of Masters of Science in Information in School of Information; **Co-PIs:** Elaine Westbrook, Associate University Librarian for Research and Elizabeth Yakel, Ph.D., Professor and Senior Associate Dean for Academic Affairs in School of Information; **Senior Librarians:** Laurie Alexander (Learning & Teaching), Meghan Sitar (Connected Scholarship), and Alexa Pearce (Head, Social Sciences Team); **Junior Librarians:** Justin Schell (Learning Design Specialist), Alix Keener (Digital Scholarship Librarian), and Amy Neeser (Data Curation Librarian).

Project Objectives: We propose a three-year project to develop a new research lab model in LIS education and professional development, to be collaboratively facilitated by the U-M School of Information and the U-M Library. We plan to create three interconnected research labs on library assessment, library analytics, and design thinking for libraries, comprising of three lab directors (PI and Co-PIs), three senior librarians, three junior librarians, and 12 master's students every year. U-M Library will serve as research labs that provide research and learning environments in which students engage in a variety of research projects over the course of a full academic year. The members of the Library Assessment Lab will engage in various assessment activities across library services and collections applying mixed research methods. The Library Analytics Lab will focus on projects analyzing large scale library data to improve library programs and services. The members of the Design Thinking for Libraries Lab will engage in research projects through iterative processes of brainstorming, researching, prototyping, and soliciting feedback to develop solutions for complex library problems. The long-term goal of this project is to set up a new engaged and experiential learning model for preparing future librarians with research skills to conduct library assessments, explore analytic data, and enhance the design thinking process.

Statement of Need: The motivation of this project comes from two critical educational needs for librarians. First, academic librarians are increasingly expected to demonstrate library impact and value serving as a community anchor for higher education and contributing to the overall teaching mission¹. As a result, recent LIS graduates and current librarians alike need to develop research skills needed for demonstrating systematic evidence for data collection, analysis, and interpretation. Second, there is a need to learn a variety of research methods that can be applied to library work practices which includes analyzing existing administrative and data from library systems and generating new data through various research methods. Traditionally, librarians' specialized areas have been defined in terms of subject specialists who serve as liaisons for particular disciplines or departments or as format specialists (e.g. government documents, geographic information system (GIS), or special collections librarians). We believe that the next information professionals who have strong expertise in research methods would be better equipped to enter the workforce and contribute to their institutions in meaningful ways. The proposed project has great potential as an educational model for preparing participating LIS students to be 21st century librarians because the research process enhances students' capabilities for understanding problems in depth. It gives them experience considering an existing context systematically and reinforces students' evidential and critical thinking skills so they can develop solutions or make decisions using strong analytical and logical arguments.

Relevance to Project Category of Community Anchors: This proposal supports the strategy of libraries as community anchors by reconfiguring libraries as research laboratories to enhance the research skills of professional librarians and master's students. Providing experiential learning opportunities to complement classroom instruction for LIS students, a professional development program for junior librarians, and a mentoring program for senior librarians is the core purpose of this proposal. The promise of nurturing mutually beneficial relationships among lab directors, librarians, and students is a powerful strategy for building the necessary interpersonal skills for the workplace.

Proposed Work Plan

(1) Creating Library Research Labs: We will create three interconnected library research labs. Each lab is

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composed of the following members: PI or Co-PI, one senior librarian, one junior librarian, and four master's students. Rather than pairing up one librarian mentor and one or two students, we adopt the research lab model in which lab directors, librarians, and students engage in research projects collaboratively and mentoring occur across the lab members. Each lab will address a real problem in a professional library work context.

(2) Research Education for Students and Professional Development of Librarians: In each research lab, the PI or Co-PI, one senior librarian and one junior librarian will work as a mentoring team, mentoring each other and the students on research and professional practice. This will provide an opportunity for everyone to engage in the research process, to develop new research skills and improve their mentoring. Research labs will have weekly lab meetings, report out progress, work on research design or implementation challenges and ultimately produce research papers.

(3) Community-building: The entire cohort of student mentees and librarian mentors will meet monthly for two hours. In the first session, speakers to be invited will give a series of research seminar emphasizing approaches and strategies for data collection and analysis. The PIs will also provide hands-on instruction about responsible conduct of research and scholarship, writing IRB applications, developing research questions, research methodology, academic writing, poster presentation, and publication venues. In the second session, students from each lab will give a progress report about their research activities so that students can discuss their research, provide peer-to-peer mentoring, and build a learning community.

(4) Mentoring Training: The PIs will organize a workshop for librarian mentors so they understand their time commitment, roles, and responsibilities. In addition, the PIs will publish an electronic *Handbook* with policies and procedures that are important for cultivating and sustaining successful mentoring.

(5) Curriculum Support: The UMSI curriculum is well organized to support the master's students. Master's students will be guided to take at least four research methods courses: Statistics, Contextual Inquiry, Research Methods for Information Professionals, and Library and Archives Assessment.

(6) Symposium Presentation: Students will learn to prepare academic presentations by participating in a symposium, which provides a forum for faculty, librarians, and other communities to exchange ideas at the end of their program.

(7) Research Dissemination: Students and librarians are expected to present their projects in professional conferences or publish in professional journals. Both students and librarians will learn how to write academic papers for prestigious conferences or journals.

(8) Program Evaluation: The PIs will conduct evaluation throughout the project period to assess the success of each project activity by collecting and analyzing the data using questionnaires, individual interviews, and observing meetings and events. The focus will be on assessing the impact of this program on student experiential learning and librarian professional development. The assessment results will be included in the *Handbook* that will be updated annually.

Projected Goals and Outcomes: All participants will have opportunities to learn about ongoing research projects and gain a greater understanding of how professional practice and theories are connected. Upon graduation, participating students are more likely to collaborate, approach problems in depth, and be more confident about solving real world problems. Participating junior librarians will be also gain research skills to help them further their careers and subsequently mentor others in research techniques. Senior librarians will improve their mentoring skills and gain higher job satisfaction by having stronger professional identities as mentors and educators who can directly influence student and peers' learning.

Potential Impact: The potential impact of this project includes: (1) it will form a bridge between the U-M School of Information classroom and University of Michigan Library as research labs to build experiential learning opportunities for students; (2) it will develop, evaluate, improve, and iterate a support infrastructure in which students work closely with practicing librarians to conduct cutting-edge research to enhance their capability to become methodology experts; (3) it will produce an innovative and unique learning and mentoring model that is sustainable, applicable, and transferrable to other LIS master's programs and libraries interested in the professional development of librarians to enhance research skills and mentoring capabilities.

Estimated Budget: The estimated budget total = \$686,213. Direct Costs (\$102,417 salaries, wages & fringe benefits; \$7,400 PI/CoPIs travel; \$45,000 librarian incentives; \$3,420 supplies; \$270,000 student stipend; \$8,445 speakers & symposiums hosting) + IDC \$48,338 + \$201,193 Cost Share.