User Experience (UX) Labs: Fostering Innovative Academic Research (Panel Proposal)

Panel Organizer:
Ben Richardson
University of Missouri
303 Townsend Hall
Columbia, MO 65211 USA
Benjamin.Richardson@mail.mizzou.edu

Panel Co-Organizer:
Rong Tang
Simmons College
Graduate School of Library & Information Science
300 the Fenway
Boston, MA 02115
rong.tang@simmons.edu

ABSTRACT
User Experience laboratories (UX labs henceforth) affiliated with Library and Information Science schools support a wide range of academic research by faculty members and graduate students. Though their names vary (e.g., information experience lab, usability lab, Human Computer Interaction lab), these labs serve on the front lines to investigate the impact of shifting information behaviors by implementing innovative methods for conducting usability studies and analysis. This panel, represented by UX lab faculty/staff members affiliated with three different institutions, will focus on describing a variety of research projects conducted in their labs, discussing the benefits and challenges of conducting research, and introducing multiple usability research methods such as heuristic evaluation, portable usability lab for site research, and mobile usability testing methods and tools.

CONFERENCE TRACK
Track 1: Human Information Interaction

KEYWORDS
Usability and HCI research; Emerging User Research Methods

SPONSORS
ASIS&T SIG USE; Information Experience Lab of the University of Missouri; Simmons College Usability Lab; University of Western Ontario Human Computer Interaction Lab.

Introduction
In the past decade, several institutions of higher education have established labs to explore users’ experiences with digital technology. The founding principles in many of these labs are in accordance with ASIS&T’s goal to improve access to information and to provide positive user experience. At various UX labs, research has been carried out through both academic and client related research. These labs are identified by various titles such as HCI, usability, and information experience. The term user experience (UX) may be used as an umbrella term that embodies a variety of labels. To date, there are over 100 UX labs worldwide associated with institutions of higher learning.

The establishment of UX labs offers several benefits to students and faculty. Although each lab has its own unique missions, all labs provide educational outreach services and the tools for students and faculty to engage in research. UX labs serve as a mechanism for putting theory into action and utilizing innovative usability methods and devices.

Students gain real world experience and are provided with an environment to conduct academic research that can lead to participating in academic activities, such as presenting at conferences or authoring articles.

This panel primarily seeks to foster conversations about the undertakings of research at UX labs and to elucidate the innovative tools and methodologies in this enterprise. The panel will address the logistics of running a usability lab in an academic environment and balancing student learning, service to clients, and research needs. It will also discuss a variety of innovative methods used in these research projects, ranging from heuristic evaluation, using portable usability lab for on-site usability testing, and mobile usability testing methods and tools.

The three labs included in this proposal represent a good range and microcosm of UX labs in terms of how they attract clients, manage projects, and engage in academic research.
Format
The session will be 90 minutes long, comprised of presentations, Q&A, and a lightning talk round featuring specific UX projects. During the first 40 minutes, the panel presentations will provide an overview of the labs’ endeavors to conduct academic research and also highlight projects and methodologies. Additional details about the presentations are included in the panelists’ descriptions. Then there will be a 30 minute lightning round that will feature short presentations showcasing various research projects conducted at the three UX labs. Six lightning talks will be given with each round lasting 5 minutes. The final Q&A session will last 20 minutes.

Benefits and Significance to the Conference Themes
This panel will inform ASIS&T members about the type of research conducted at UX labs and will initiate conversation about research methodologies. The partnership these UX labs have with their clients allows them to witness firsthand how various organizations and companies are reimagining their target audience and adjusting to new information boundaries. From an academic perspective, UX labs provide a basis to explore new research methodologies that tackle the themes of the ASIS&T conference and in turn advance the knowledge base of information science.

It is also hoped that a virtual collaborative platform can be developed to allow UX labs in the ASIS&T community to exchange ideas or collaborate on future innovative technologies and research projects.

Moderator
Michael Leach is a former ASIS&T president. He is the head of collection development, Cabot Science Library, Harvard University. He has worked in science libraries for more than 20 years.

Panelists

- Panel Presenters

Rong Tang is an Associate Professor at the Graduate School of Library and Information Science, Simmons College. She is the Director of Simmons Usability Lab. She also serves as the faculty advisor for UXPA@Simmons. Her lab supports a wide range of usability research projects including usability testing of Microsoft PixelSense (SUR40), mobile usability testing of EBSCO EDS, and using portable usability labs to conduct on-site tests for Harvard/Smithsonian Astrophysics Data System, SUR40 & Library Explorer software, and Harvard IQSS Dataverse Network. Rong will provide an overview of various academic research activities that she supervises and facilitates through the usability lab. She will then discuss the advantages and challenges of using a portable usability lab for on-site usability tests.

Lu Xiao is an Assistant Professor in Library & Information Science at the University of Western Ontario. She directs the Human-Computer Interaction Lab that focuses on user-centered design to support collaboration and learning. Her recent research projects are centered on fostering reflection in the group ideation and deliberation activities. Lu will showcase how the following UX methods were applied at different stages of design process in different projects: heuristic evaluation, cognitive walkthrough, paper prototyping and Wizard-of-Oz, field user study, and user testing. Example projects are: web design of sensor-based home monitoring system and development of group deliberation tool.

Borchuluun Yadamsuren is a user experience researcher at the Information Experience Laboratory of the University of Missouri. Her research focuses on user information behavior, serendipitous information discovery, and human computer interaction. She has managed numerous projects on the iterative design, user experience and usability evaluation of different information systems, including a news portal, college websites, and an academic library portal. At the moment, she is leading several projects on the evaluation of innovative health care systems, being developed by Cerner Corporation. Some of these projects include patient portal systems, patient engagement, and quality assurance systems. Yadamsuren will present about the lab’s efforts to combine research with client-oriented projects on usability studies.

- Lightning Talk Participants

In addition to the panelists, the following individuals will participate in the lightning talk portion of the panel session:

Dinara Sarpnova is a PhD candidate at the School of Information Science and Learning Technologies at the University of Missouri. Her current research agenda is information behavior of medical professionals shaped by their interaction with information systems. Dinara’s affiliation with the Information Experience Laboratory as a user experience researcher adds to her expertise of the application of most relevant principles for technology evaluation intended to improve user performance. Dinara will provide an overview of usability evaluation projects she has worked on in the field of medical and consumer informatics.

Ben Richardson is a PhD student in the School of Information Science and Learning Technologies at the University of Missouri (MU) and vice president of MU’s student ASIS&T chapter. His research interests include usability and emerging technologies with a focus on digital libraries and mobile applications. He has been a graduate assistant at MU’s Information Experience Lab for three years. Ben will share his experiences as a student and how his involvement with the lab has augmented his academic pursuits. Ben’s will detail a four phase usability study that assisted in the redesign of an academic library homepage.
Graham Herrli is a Master’s student at the Graduate School of Library and Information Science, Simmons College. He works as an interaction designer at AIR Worldwide and serves as an officer for UXPA@Simmons. He seeks a comprehensive understanding of how mobile device design and testing differs from that of desktop. Graham will review the research literature concerning mobile usability and use it as a framework to evaluate the tools and methods available for mobile usability testing.

REFERENCES
UXPA@Simmons. http://gslis.simmons.edu/blogs/supa
University of Missouri. Information Experience Laboratory. http://ielab.missouri.edu/#/lab/home