User-Centered Design and the LIS Curriculum: Reflections on the User Experience Program at Pratt Institute

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With its emphasis on users and their experiences with technology, User Experience (UX) is an emerging area of interest for many fields. It is especially relevant to the Library and Information Sciences (LIS) communities, as libraries, museums, archives and other information organizations become increasingly dependent on the web and digital technologies (Jeng, 2005; Condit Fagan, et al., 2012). Currently, many LIS education programs offer courses that are partially or exclusively about usability (Ameen & Erdelez, 2011), but a narrow focus on usability relegates information professionals to merely "after-the-fact evaluators" with minimal, if any, involvement in other phases of design (Whittaker, 2013). To prepare students for more prominent roles in shaping the digital tools and technologies of the future, LIS education programs must address the broader role of usability in the user-centered design (UCD) process (Bias, Marty, and Douglas, 2012).

With historical roots in Human-Computer Interaction (HCI), UCD is the foundation of the UX profession, a diverse, multi-disciplinary field concerned with the design and/or evaluation of websites, software programs, mobile or tablet applications, and other interactive technologies. Although usability was and still is a core principle of the UCD process (and the UX profession), a focus on the entire user experience presents a new paradigm that broadens the scope beyond task-centered user performance to the emotional/affective aspects of interacting with digital tools through multiple devices and in dynamic contexts (Hassenzahl & Tractinsky, 2006; Law, et al., 2009; Bargas-Avila & Hornbæk, 2011). The holistic nature of UX and the prevalence of mobile devices, cloud computing, and ubiquitous technologies have profoundly changed the information landscape, creating new opportunities, and new challenges, for educators (Churchill, Bowser, & Preece, 2013).

In response, faculty at Pratt Institute's School of Information and Library Science recently launched an innovative, multi-faceted program aimed at preparing students for careers as UX professionals, either outside or within LIS-focused organizations. The UX program at Pratt Institute consists of three components – a 12-credit concentration, an independent consulting group, and a student interest group – that build on the Master of Science in Library and Information Science degree. Although other universities offer UX-based courses and degrees (e.g., Kent State University's Master of Science in User Experience Design), a review of other LIS programs shows no similar initiative that integrates core UX concepts into the traditional LIS curriculum.

As a whole, Pratt's UX program blends traditional classroom learning with extracurricular opportunities to provide students with a mix of theoretical knowledge and practical application, a balance that is seen as increasingly important for preparing future UX professionals (Churchill, Bowser, & Preece, 2013). A common way to showcase this balance is through an e-portfolio, which serves as the core of both the UX program, since portfolios are commonly viewed as a prerequisite for professional UX positions (MacDonald, in press), and the MSLIS degree, which introduced an e-portfolio requirement in Fall 2012. By blending the two

portfolios, students are able to highlight their qualifications as information professionals (including expertise with research, communication, and technology) while also showcasing their knowledge and experience with common UX design and evaluation methods (including user testing, card sorting, wireframes, etc.). To this end, coursework in the UX concentration emphasizes the portfolio-building process while also teaching students the fundamentals of the UX profession. Added to this are the independent UX consulting group, through which 17 students have executed three usability studies for real clients (as of July 2013), and the UX student interest group, which solidifies students' connection with the professional community through networking events, an e-mail discussion list, and topic-based monthly meetings.

This presentation will report several institutional, practical, and pedagogical lessons that have been learned throughout the first year of the UX program. For instance, institutional lessons included gaining support and buy-in from the administration and faculty and leveraging existing courses and processes (i.e., the e-portfolio). From a practical standpoint, student involvement emerged as the most critical challenge, including marketing the program to prospective students, motivating current students to participate in extracurricular activities, and reaching out to interested alumni to act as mentors. Finally, pedagogical lessons mainly focused on finding the appropriate balance between educational and practical goals through, for example, introducing innovative in-class design activities to extend and enhance lecture material (e.g., rapid fire user research methods, iterative sketching exercises), breaking group projects into separate individual deliverables that can be added to a portfolio, and creating mini-lectures and tutorials that can be integrated into non-classroom practical experiences. Moving forward, the program will continue to evolve based on feedback from students, faculty, and members of the local UX community. In addition, future development efforts will include enhancing the program's web presence, increasing the involvement of local UX professionals, formalizing the independent consulting group, developing a state-of-the-art usability lab, and assessing the program's impact on placing students in professional UX positions.

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