Interaction Design Techniques Inform Digital Teaching Library Implementation

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Overview

This session presents an overview of how interaction design techniques have been used to support the transformation of a traditional university library into a Digital Teaching Library with a focus on the development of interdisciplinary learning commons. Current literature indicates that, to successfully meet the future, libraries must change from static resource centers to dynamic centers of instruction, exploration and learning, including:

> "new architectural spaces, rich with facilities for collaborative group study and social interaction as well as the more traditional individual engagement with collections; places populated with librarians, information technologists, instructional technologists, media specialists, and faculty that will work together to advance learning." (Race, 2004).

Achievement of this vision challenges many traditional conceptions of the library as a physical entity as well as a service provider. The relationships with various university constituencies and campus partners must be revisited and reframed, both internally from the library staff point of view, as well as externally from faculty and students' points of view. In order to accomplish the needed changes in perception and outcomes, we are using techniques from the field of interaction design (also sometimes called "user-centered design") to conduct projects that have informed the library's transformative design decisions. While the projects themselves vary in their individual aims, the overall theme concerns harnessing the potential of technology within a robust information-rich learning environment through sustained interactive engagement among library stakeholders.

The overall session will consist of a brief introduction to the theme described above, three paper presentations on particular aspects of this theme, and a wrap-up discussion on the transformative implications of interactive design techniques for furthering the meaningful integration of technology into campus teaching and learning activities.

The first paper, by David Gillette and Mary Somerville, titled, "Faculty and Student Usability and Focus Group Findings Inform Digital Teaching Library Interface Requirements" discusses application of usability and focus group techniques to reveal the differences in the worldview of the website builders and the website users. This

discovery process led to renegotiation of the developers' purpose(s) including improved support of faculty and student information-based problem solving needs. These insights, embedded in the Learning Commons' technology-mediated interface design for digital resources, better enable the advancement of relational information literacy learning outcomes. . Finally, we discuss lessons learned about how and why to integrate user-centered design into campus technology support and development practices.

The second paper, by Erika Rogers, titled "Student Usability Project Recommendations Define Information Architecture for Library Technology", demonstrates how interaction and usability evaluation techniques support the restructuring of information in a number of functional library areas. The paper describes three major projects conducted by senior level computer science students applying human-computer interaction principles. These students worked with library leaders to provide recommendations for design/redesign and development of a technology-mediated, Web accessible digital research portal, an interactive data visualization application and a student-centered learning management system.

In the third paper, titled "Soft Systems Methodology Results Transform Professional Roles in the Digital Teaching Library", by Mary Somerville and Anita Mirijamdotter, we discuss the application of Soft Systems Methodology to align the library information and instructional services and systems with campus learning outcome and assessment drivers. Using 'systems thinking' tools, library faculty and staff members continue to innovate, in partnership with Information Technology Services staff and academic faculty, to forge new collaborative strategies that place information and knowledge at the heart of the academic enterprise.

References

Race, Al., et al. (2004). "The Future of Libraries: six perspectives on how libraries, librarians and library patrons will adapt to changing times" [Electronic Version]. Threshold, Winter 2004, 13-17.