

Research Statement

Abstract

My research centers around social informatics, especially social, collaborative information behavior and the social contexts of information and communication technologies in communities and collaborative environments. My particular focus is on social digital libraries as boundary objects within and across social worlds, information worlds, and communities. I build on existing research and theory, including Star's boundary object theory, Strauss's social worlds framework, and Burnett and Jaeger's theory of information worlds. Digital libraries as boundary objects will succeed if they coherently reconcile the meanings and understandings of the multiple communities, social worlds, and information worlds that use them, allowing users to collaborate and supporting the creation or emergence of a broader community around the digital library. I look at (a) how digital libraries act as boundary objects; (b) whether and how they facilitate the interface between existing worlds and the emergence of new worlds; and (c) what role the social norms, social types, information behavior, and information values of existing information worlds play. I take a social informatics-based approach that uses multiple and mixed methods of data collection, including interviews, content analysis, and surveys. I also aim to build and test a theoretical understanding of social digital libraries as boundary objects and as used within and across social worlds, information worlds, and communities.

Research Interests

My research centers around social informatics, especially social, collaborative information behavior and the social contexts of information and communication technologies in communities and collaborative environments. My particular focus is on social digital libraries as boundary objects within and across social worlds, information worlds, and communities. I define a *social digital library* as (a) having one or more collections of digital content collected on behalf of a user community; (b) offering services, relating to the content, by or through the digital library to the user community; and (c) being one or more—or part of one or more—formal or informal organizations managing these content and services. All of these should be considered in light of the various contexts they inhabit, most of all the social contexts.

Unfortunately, many existing digital libraries offer weak support for the multiple, overlapping, and intersecting *communities* that use them and for *collaboration* that takes place within and across communities. Since one of the traditional roles of physical library environments is to serve as inherently social spaces, digital libraries need to learn more about and improve their support for social, collaborative information behaviors and activities. They should be well-integrated with groups and communities that use them within and across their boundaries, remaining part of these communities' ongoing conversations and ensuring social opportunities to seek, use, and share information and knowledge are not diminished or lost.

A social approach to studying ICTs and information behavior arguably extends as far back as Bush's (1945) famous memex, but most early information retrieval systems and most early digital libraries focused solely on technological aspects (see e.g. Borgman, 1999). The rise of social informatics has led to greater understanding of the importance of contextual views of information and information systems (Courtright, 2008; Kling, 1999), including digital libraries

(e.g. Lynch, 2005). There is still a great need for theoretical and practical research to see if and how digital libraries support and facilitate collaboration, communities, and other social contexts in light of the most appropriate conceptions of these contexts in theory and practice.

Research Agenda

My research moves towards solving this research problem and builds on existing research and theories, drawing on Star's boundary object theory (Star & Griesemer, 1989), Strauss's social worlds framework (Clarke & Star, 2008; Strauss, 1978), and Burnett and Jaeger's (2008; Jaeger & Burnett, 2010) theory of information worlds. Boundary object theory indicates digital libraries, as boundary objects, will succeed if they coherently reconcile the meanings and understandings of the multiple communities that use them, allowing users to collaborate, interact, and build a broader community around a social digital library. Through the lens of the theory of information worlds, digital libraries should support the emergence of localized and common social norms, social types, information values, and information behaviors shared—to varying and overlapping extents—by the different information worlds that use them. Through the lens of the social worlds perspective, digital libraries should act as common sites and technologies for users to engage in information-based activities. Digital libraries, as boundary objects, also mutually influence and are influenced by social and information worlds, and all three evolve and change throughout the lifecycles of each. I look at three overarching research questions:

1. *How do digital libraries act as boundary objects? What role(s) do they play in translation, coherence, and reconciliation? What role does flexibility play?*
2. *How do digital libraries facilitate the interface between the existing social or information worlds of their users? How do they facilitate the emergence of new social or information worlds among their users? To what degree are they successful as common sites and technologies for information-based activities across social worlds?*
3. *What role(s) do the social norms, social types, information behavior, and information values of digital library users' existing information worlds play in (a) translation and negotiation between existing communities, (b) the building and emergence of new communities, and (c) facilitating collaboration across community boundaries?*

I take a methodological and epistemological approach based in social informatics, examining and interpreting information behaviors and activities in a socio-technical context. I use multiple and mixed methods of data collection, including quantitative survey instruments, quantitative and qualitative content analysis, and qualitative interviews. I also aim to build and test a theoretical understanding of social digital libraries as boundary objects used within and across social worlds, information worlds, and communities. Such an understanding will expand knowledge of the communities, social worlds, and information worlds of digital library users; their social information behaviors and activities; and their reasons for using digital library collections and services in social contexts. Findings can inform the design and practice of digital library services and improve users' ability to collaborate, communicate, learn, and network with others within and beyond their existing communities and worlds. Broader research in LIS and in the areas of virtual laboratories, virtual communities, online learning, social networks, social information behavior, and knowledge sharing and transfer also benefits.

Research Experience

My current and former research experiences of relevance to this research agenda include:

- *Quality Evaluation of Health Answers in Social Q&A: A Comparison between Health Reference Librarians and Questioners: A research collaboration* (for academic credit from 1/2011 - 8/2011) with Dr. Sanghee Oh and her graduate research assistant, Yong Jeong Yi, investigating the influence of social media in and on health information seeking and sharing behaviors. We have compared health reference librarians, nurses, and questioners' quality evaluations of answers to questions on Yahoo! Answers, a social Q&A Web site. I have helped with reviewing literature, applying for human subjects approval, survey design, recruiting participants, collecting data, analyzing results, and publishing and presenting findings. I have broadened my research experience in online data collection and content analysis and furthered the mutual research interests we share. I also helped present our preliminary findings in a poster at ASIST 2011. The collaboration should also produce one or more published journal articles.
- *Virtual Scientific Teams: Life-Cycle Formation and Long-Term Scientific Collaboration:* I am currently a graduate research assistant for this National Science Foundation (NSF)-funded 2½ year project (#0942855), working with numerous FSU SLIS faculty under the leadership of Dr. Kathy Burnett (PI). The project aims to identify what social and organizational factors best support the transition from short-term, experiment focused, virtual scientific collaborations to long-term productive, innovative programs of scientific research; it uses Burnett and Jaeger's theory of information worlds as a basis. My contributions are wide-ranging, including observation sessions of scientific teams conducting experiments, transcribing interviews, helping with both quantitative and qualitative data analysis and coding (using NVivo), writing portions of papers and posters, taking notes during meetings, assisting with writing follow-up grant proposals, helping to organize our private project management site, and maintaining the Web site for the project (<http://voss.cci.fsu.edu>). My coding of information worlds concepts has especially helped strengthen the theoretical components of my own research agenda.
- *Supporting Community-Building in Digital Libraries: A Pilot Study of LibraryThing:* This individual project piloted a survey instrument to measure the level of support provided by the LibraryThing digital library for community-building behaviors and activities by its users, under the guidance of Dr. Besiki Stvilia, as a first step towards the goals in my research agenda. While only a pilot study with concomitant limitations, some interesting findings were nevertheless uncovered, discussed in a poster I presented at ASIST 2010. I intend to explore these further in future mixed methods research, including revising the survey instrument developed in this project in the context of my developing theoretical framework of social digital libraries as boundary objects.

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