Sponsor

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Organizers

Hamid R. Ekbia is an associate professor of Information Science at the School of Library and Information Science, an adjunct associate professor of Informatics, and a member of the core faculty in the Cognitive Science Program at Indiana University, Bloomington. In 2009, he became the director of that university’s Center for Research on Mediated Interaction. Ekbia is also a visiting professor of Computer Science at Ferdowsi University of Mashad, which is located in his birth-city in Iran. His current research focuses on how technologies mediate between individuals, organizations, and collections and so transform objects and meanings through hybrid networks of interaction. Ekbia published the book "Artificial dreams: the quest for non-biological intelligence" with another under review.

Howard Rosenbaum is the Associate Dean and an associate professor of Information Science at the School of Library and Information Science as well as an adjunct associate professor at the School of Informatics at Indiana University, Bloomington. Rosenbaum has been honored by the Committee on Institutional Cooperation with as an Academic Leadership Fellow in addition to receiving the School of Library and Information Science Teaching Excellence Recognition Award three years in a row. Recent contributions to the literature of the information science field include a chapter on social informatics in the Encyclopedia of Library and Information Science and the book Understanding and Communicating Social Informatics in collaboration with Rob Kling and Steve Sawyer.
Curtis Cain
Penn State
The underrepresentation of Black males in the Information Technology professoriate is a problem in academia and our society. This creates a gap in the amount of Black men that can pursue higher education to potentially enter the professoriate. Diversity and learning go hand in hand. People of different cultural, ethnic, religious, and societal backgrounds bring their various experiences with them when they come into a classroom. The more diverse the student, teacher and professor make-up, the more perspectives they can share about any given principle or concept. Therefore, heterogeneous classrooms contribute to diversity.

Post secondary participation and graduation rates of Black males within Science, Technology, Engineering and Mathematics (STEM) disciplines are declining rapidly. Black women, however, are realizing substantial growth in both of these areas and account for the majority of the increase in Black student college enrollment. The number of Black males who attend and graduate from the nation’s colleges and universities is steadily in decline and now at a critical and disturbing point. Although this trend started in the decades ago, it has recently captured more focused attention from educational researchers, sociologists, economists, and administrators in higher education. Increased focus and attention can be attributed to increasing concern for the declining number of Black male teachers and professors in STEM, which have an impact on how students perceive their identity and select career paths. Research indicates that this dilemma has roots that go back to elementary school and consequences that will influence future generations. Diversity is greatly needed across all backgrounds as diverse cultures need role models and mentors for its youth. The concept of identity and seeing oneself in a role opens the door to the possibility of one assuming that role. There is no lack of data supporting these claims. However, what is lacking is sufficient research to analyze and understand the problem, and provide the basis for interventions that could lead to the reversal of the trend. I am interested in analyzing one gap in the research literature: the underrepresentation of Black men pursuing graduate degrees and ultimately entering the professoriate in IT fields. I would like to explore the possibility of applying Dr. Eileen Trauth’s conceptual framework and methods, which have been successful in helping to understand the underrepresentation of women in the IT workforce, to a new domain: Black men in IT. In order to accomplish this, I would use Trauth’s Individual Differences Theory of Gender and Information Technology to analyze ethnic identity, masculinity within the STEM fields of IT, societal and environmental influences, and the role of mentors, guidance counselors and role models in obtaining a graduate degree and ultimately moving along the academic pipeline to becoming a professor. Having a more diverse professoriate can help with the recruitment and retention of minority undergraduate students through role modeling and mentoring. The findings from this research will add to the growing body of knowledge about interventions to address underrepresentation of certain populations in the IT field. But the particular contribution is that the focus is on minority males. Researching this topic at the undergraduate level would be a starting point, but future research would allow me to study graduate students and faculty in academia to further understand underrepresentation throughout the entire academic pipeline in IT.

Rachel Ivy Clarke
University of Washington
I have never considered myself primarily an artist or a scientist, but I have always considered myself a designer. Drawn to the library profession after working as a graphic designer, I deeply value the services that libraries provide and the principles they uphold. This perspective motivates my eager pursuit of improvements in these areas. Libraries pioneered many developments later adopted by other information providers, such as faceted classification, now adopted by many websites for navigation. But libraries now compete more and more with mass media, e-commerce, and other dealers in information, many of which short-change or ignore traditional commitments to useful organization of resources and equality of information access. Libraries continue to provide value in ways that commercial and mass media enterprises do not.

Equal access does not mean, however, that the same service works for all users. A text-based search interface may serve scholastic academics seeking peer-reviewed articles but leave an artist seeking images without help; users accustomed to browsing library shelves may struggle to translate their information-seeking tactics to an online access interface. My research focuses on improving lapses like these through attention to three main areas: bibliographic cataloging and metadata, information-seeking behavior (specifically browsing and serendipitous discovery), and user interface/experience design. My current research goals are to discover how library users of all types—but especially nontraditional users such as artists and other visually oriented people—find information when the free-text search box fails them, and how alternative methods may be better supported in both front and back-end user interfaces.
A first attempt at this research was a chapter I wrote for the Handbook of Art and Design Librarianship documenting bibliographic cataloging approaches found to serve artistic students’ information-seeking behaviors. Further investigations will address how information seekers respond to a browse-based interface. Conversely, how does a lack of support for browse-based information seeking impact scholarship, learning, and resource access? I am also interested in related questions about how back-end interfaces for metadata-creation may affect quality and presentation of information for end users. These research interests raise questions of design and its role in library studies, philosophy, and epistemology. The library profession actively designs services like information literacy curricula and artifacts like classification schemes, all based on research with deeply embedded traditions of science, both quantitative and qualitative. Why has the profession taken that position? Could a design-based approach to library education and services inspire a new way of knowing in the library field, supplementing or replacing current models? User interface and experience design need not stop with computer interactions alone—every handout, brochure, desk or sign is part of an interface, and every library embodies a user’s experience, from walking in the door of the physical library space to the virtual environment of the online catalog and website. I propose to think of libraries as complete user experiences, researching their effects and designing ways to improve outcomes.

Alex Garnett
University of British Columbia

My research interests lie in the mining and analysis of open data from social networks – and particularly social networks for education – in an ethically transparent way that respects the agency of contributors and other end-users. I am particularly interested in how the open availability of scholarly content (as in open access publishing) and of informal learning histories can support the goals of Computer Supported Collaborative Learning (CSCL) by providing richer and more broadly useful corpora from which to learn and to understand learning.

Although not specifically concerned with the design of environments in which collaborative learning takes place, I am interested in how the means by which we analyze data from existing sources reflects on the range of interactions available to the user. This can apply to within-system interactions such as weighting implicit feedback data against that which is gathered explicitly, as well as to cross-system analyses such as measuring the network currency of a given document (e.g. traditional citations of an academic article or PageRank relevancy of a blog post) against the individual network currency of its author (e.g. in Twitter or some other visible persona).

As these new channels reveal new opportunities for engagement with individual practice communities, formal learning is becoming less and less sui generis. This is very good, and the nascent “open education” movement has responded by redesigning curricula and in some cases making them freely available. However, this accounts only for the raw materials of learning. While research into the development of automated learning analytics and other methods of educational data mining has expanded dramatically in recent years, this work has so far been bounded by commercially available education technology, which fails quite badly to pick up the promise of “openness,” making it quite difficult, for example, to generalize any findings to or from the study of informal learning.

One of the major failings of past research in educational data mining, and perhaps especially Latent Semantic Analysis, has been the failure to look at documents in context, rather than in isolation. An approach that is grounded in social network analysis is, at least in theory, an obvious solution to this problem, but the finer points of doing so are still very much a matter of debate. There is a considerable amount of very good research being done on prototype systems which help to visualize and scaffold the research process, and likewise on authoring environments which provide constant feedback (some silent, some not) on an individual’s writing practices. Any of these, however, becomes too much a study of user behaviour – handily, if intriguingly, scuttled by users’ leaving for twenty minutes to walk their dog and opting to record their revelations on a post-it note on the way back to their computer monitor.

Because I am not much of a behaviourist, my interests lie in discovering what can be done with already-published documents, while acknowledging (and celebrating) the fact that “published” in this case entails “posted to a phpBB forum or PLoS article comment thread” or “committed to a public Google Doc and solicited advice via Twitter.” One might more appropriately call these document boundaries, which is something about which I believe social network analysis and hypertext data mining can readily agree. In a few words: if data about someone’s having learned something or contributed to some educational interaction is openly available in some context, I would like to understand whether it is done justice by being generalized to another.
Marc K. Hébert
University of South Florida
Local, state and national governments worldwide are increasingly adopting computer, Internet and mobile technologies as the media to provide public assistance. These electronic government (e-government) initiatives can vary from renewing a driver’s license to requesting social services. In the US state of Florida, there is a single online application for food and medical assistance, known as “the Automated Community Connection to Economic Self-Sufficiency (ACCESS)” program. ACCESS provided me the lens through which to observe peoples’ experiences with and perceptions of an e-government application process using publically available computers in Florida libraries and nongovernmental organizations (NGOs). This ethnographic fieldwork occurred over the course of 12 months. I then compared my findings of the program with those of the Florida agency in charge of ACCESS.

Two conceptual frameworks guided this research. The first is anthropological treatments of public policy [3-8], which recognize that evaluations of government programs are not value neutral. They are, rather, culturally contingent and deployed strategically for political economic purposes. Moreover, this framework includes ethnographic research at the “street-level,” such as in libraries and NGOs where many people experience public policies. These factors shape how the results of e-government evaluations will be interpreted and subsequently used or discarded by e-government program managers and their subordinates, the legislatures funding such initiatives, and the general public.

Design and design anthropology offered the second framework for my research by identifying limitations in the way the ACCESS program has been created and maintained and the manner in which applicants’ experiences with it are assessed. For example, ACCESS appears to be created around the “average” user. “Average” here means someone who is technologically, educationally, physically, cognitively and financially capable to complete an online application process for public assistance. Rather than being oriented towards these users, design research suggests that creating e-government programs around the needs of historically marginalized populations can make access easier for the overall population. Concentrating on these populations to improve accessibility for more people is based on one of the “universal principles of design”. Moreover, doing so upholds the democratic values articulated by national governments, including the United States to guarantee access to everyone entitled legally to public services.

The following dissertation findings are explained through these frameworks: (1) library and NGO employees are increasingly serving as providers of public services through an unfunded mandate, shifting state government responsibility for social service provisioning to local levels without the requisite funding and often times training, (2) the design of the official ACCESS survey to assess applicants’ experiences requires improvements, and (3) my perceptions of users’ main challenges with the ACCESS application process along with the observations of employees at libraries and NGOs appear to be more aligned with how applicants report other people’s main challenges with the application process rather than their own.

Peter A. Hook
Indiana University—Bloomington
I believe that there are basically two kinds of research: (1) development of theory and foundations, and (2) applied solutions to real world problems. I believe that the quality of research is improved when it is well-grounded in theory. I like the conceptual clarity that derives from having well-developed schemas for a particular knowledge domain. Conceptual clarity helps to contextualize applied research and assists in both obtaining funding and promoting results. However, I view theory as a means to an end. I most value applied research that provides significant benefits to humanity and solves real world problems. I believe that there are large advances to be made from the leveraging of existing data infrastructures, and the creating of new ones, in order to reveal relationships that would not be apparent otherwise.

Specific research interests
I am interested in either beginning or continuing research in the following areas.

Data Analysis, Data Mining, and Information Visualization
• I am most interested in utilizing knowledge infrastructures to obtain big picture, global perspectives (domain maps). These allow a novice to more quickly become familiar with a domain and experts to contextualize their research in a broader perspective. Domain maps reveal avenues of inquiry previously unknown to a researcher as well as opportunities for collaboration.
• I would like to conduct usability studies of domain maps and their constituent components. Very little work has been done in this area. The utility of domain maps has been assumed and hinted at anecdotally, but has seldom been empirically demonstrated. I am particularly interested in the educational use of domain maps.

• I have an interest in the use of domain maps as an additive feature of an OPAC. I am interested in systems that while still allowing keyword search and topical browsing, also (and perhaps simultaneously) provide for a spatial navigation of bibliographic data. I would like to demonstrate how the use of such visualizations unobtrusively conveys the underlying structural organization of the domain to the user.

Bibliometrics / Scientometrics
• Data mining information about authors, publications, and related subject information is often the means to produce insightful domain maps. However, the unvisualized metrics are frequently interesting in themselves and publication worthy. I am also interested in information diffusion.

Network Theory
• My interest in network theory includes using the network metaphor (node and link diagrams) for datasets that are not frequently conceptualized as networks. This is done in order to utilize the insights from network metrics (centrality, diameter, greatest connected component, clustering, etc.). My interest in networks also extends to social network theory.

Legal Information
• I am interested in all aspects of information production, organization, and use by the legal community. This includes legal bibliometrics, informatics, and bibliography.

Information Generally
• My jurist doctor degree and experience practicing law make me well suited to explore information policy, the legal aspects of intellectual property, and other legal issues associated with librarianship.
• I am interested in knowledge organization systems and how they can be optimized through data mining and visualization.
• I am interested in all aspects of the history of information. In particular, I am interested in the development of information infrastructures such as citators, taxonomies, and bibliographic markup (MARC).

Laura Jankeviciute
University Michel de Montaigne Bordeaux

A considerable part of leisure of new generation is occupied by media, especially digital practices. As digital practices are indeed a culture we must analyze them according to various scientific aspects. The focus of my research is pre-teens from 10 to 15 years old and their way of using Internet.

Firstly, I analyze representations of the Internet in the world of pre-teens and the way children use this sort of media. I’m using an anthropological perspective to show in which parts of environment the uses on the Internet unfold. Secondly, I analyze the content of these usages. I present a wide spectrum of examples of Internet usages of pre-teens in order to develop an interface between communication practices, consumption culture and leisure activities.

72 students from two schools of Bordeaux (France) participated in the research. My study was based on two phases. At first, children had to observe their Internet usages for period of 7-10 days and to make a collage or a drawing on a blank screen of paper-laptops we distributed to every child. Secondly, I conducted reflexive-interviews with pre-teens about the uses of Internet they demonstrated graphically. That methodological way was chosen to access to pre-teens experiences from their inside world and from their point of view. Reflexive-interviews allowed me to obtain useful and rich information about the pre-teens digital practices.

The aim of my research is to define and characterize the new digital youth culture. Why the Internet’s activities are so successful in young audience’s leisure and what are the most important components that make up a digital youth culture? What specific codes, rules and norms include pre-teens Internet’s uses? What moral, esthetic and interactional conventions exist in their world “online”? What ethics and values subsist in their digital actions?
The recent studies about new technologies and youth are central in my theoretical framework. They were conducted by researchers from various disciplines: sciences of information and communication, sociology, psychology, ethnology, anthropology, educational science. Therefore, my theoretical basis shows the interdisciplinary side of our research approach. This study is in the crossroad of researches about adolescence, leisure, family, child socialization, education, media etc. The meeting of our two objects, Internet and young people, opens many reflections and perspectives that affect different areas: sociology of childhood, sociology of cultural practices, anthropology of social and cultural uses, psychology of adolescence, etc. Putting all these approaches will permit me to show that the articulation of various origins concepts and assumptions is an originality of Sciences of Information and Communication.

Mohammad Hossein Jarrahi  
Syracuse University  
Trained in the field of information systems, my work has primarily focused on the use and consequences of information and communication technologies (ICTs) in organizational contexts. My research centers on two major areas: informal networks and organizational implications of ICTs. Over the past few years, I studied the ways in which informal networks serve as conduits of knowledge, facilitating technological innovations. Supported under auspices of National Science Foundation, my work with Dr. Steve Sawyer at Penn. State University investigated the social organization of technological innovation in the context of surface computing. Findings from this case study highlighted the salience of informal networks among several researchers of surface computing. Drawing on multiple theoretical frameworks such as invisible college, community of practice and actor-network theory, we outlined the role of physical artifact, innovative concepts and individual researchers within these informal networks.

Currently as a doctoral student at the Syracuse University's iSchool, I am interested in conducting research on the organizational change induced by ICTs. I developed this interest while I was a master student in the London School of Economics. In my master thesis project, I investigated how different social structures within an academic department interacted with the daily practices of the professors, and how this duality led to distinct uses of a course management system. My PhD thesis focuses on informal knowledge sharing and ICT-enabled organizational change. I am currently studying the interplay between different social networking technologies and informal networks within and across organizations. This study focuses on the organizational implications of these novel technologies by investigating how they are bound up with informal networks within organizations.

The sociotechnical perspective, including structuration theory, actor-network theory and insights from the sociomateriality literature, enable me to examine the mutual constitution of ICTs and organizing practices such as informal knowledge sharing. Consistent with most sociotechnical studies, I have conducted several case studies using qualitative approaches to the collection and analysis of empirical data. In terms of the research audience, my research spans several communities. My education has been in the field of information systems, and that has greatly defined my research interest and approach. I have also greatly benefited from the field of organizational studies. That being said, studying as PhD student in two iSchools (PennState and Syracuse University) has given me the opportunity to interact with other research communities in the information field such as HCI and CSCW. I found CSCW domain particularly relevant to my PhD thesis, since it offers valuable theoretical and empirical insights into the dynamics of social technologies. I believe that this interdisciplinary agenda, galvanized by the iSchool scholarship, will shape my future research.

Michael L.W. Jones  
University of Toronto  
Science, technology, engineering and math (STEM) disciplines are commonly recognized as drivers of economic growth in an economy that is increasingly based in information and its creative manipulation, generation and application.

While political and educational leaders are right to encourage excellence in STEM education, how STEM education is practiced remains a concern, especially at the post-secondary level. STEM education has traditionally been structured around basic science principles taught through an instructor-led lecture format. This runs against the interests of accrediting agencies who increasingly demand graduates with applied knowledge and "soft skills" (communication, information management, teamwork, etc.) and students who are increasingly disinterested by rote learning of fact without larger context.
STEM education disciplines have increasingly adopted problem- and project-based learning approaches in response to these concerns, inspired in large part from widespread adoption in medical education. In PBL learning environments, students learn their craft through engaging and solving authentic complex problems/projects in an independent manner, guided by faculty and tutors who play a mediating mentorship role. After a generation of PBL curriculum experimentation in medical education, the general consensus is that PBL leads to slightly positive results on standardized tests and measures, but positive effects on increasing student motivation and retention, and limited but generally positive results regarding career performance.

The same research points to various challenges in creating an effective problem-based learning environment. This research project suggests that successful PBL depends on understanding PBL as a complex web of individual and collective learning challenges. After reviewing the literature, the following four factors appear particularly salient in PBL learning environments:

1) maintaining a effective mentor/apprentice relationship among tutors and students to support independent scaffolded learning; 2) the role of creation and creativity in PBL learning; 3) fostering a longer-term learning environment based on serious leisure to tap students’ intrinsic interest; 4) negotiating information complexity throughout a team’s lifecycle to build a knowing organization.

Activity theory will be used to integrate an often complex web of information seeking practices as well as investigate the many tensions and contradictions learners face in realizing their core activities.

This research project will be centered on my previous research with PBL projects in engineering education. I have previously served as a participant observer and consultant for a Formula SAE engineering team, a student engineering team that designs, manufactures, tests and races a small formula-style racecar in international competition. My main role was to advise student leaders and faculty advisors with knowledge management and team development issues.

In the first phase of this study, I wish to analyze previously collected team reports and emails with the team to highlight challenges the team faced in this intense full-year PBL project.

In the second phase of this study, I will share these observations with users of FSAE.com, an international online discussion forum in which competing teams routinely share technical and managerial challenges and tips.

The third phase of this project, I will interview team alumni to see how FSAE training influenced their early careers as professional engineers. PBL research has historically focused on course-based evaluation with limited attention to long-term effects. I remain in contact with many alumni, opening up the possibility towards engaging in longitudinal research on PBL and its effectiveness.

Natascha A. Karlova  
University of Washington  
While the information science literature demonstrates a history and a diversity of thinking about information, according to Rubin and Zhou, et al., the understandings of misinformation and disinformation tend to be limited and understudied in information science (IS). However, even in IS, there is little agreement about misinformation and disinformation. Sometimes these terms are used interchangeably and treated as if there were no difference. Sometimes one is used as a variation of the other, but the reasons for that relationship are often unclear.

Understanding the distinctions between misinformation and disinformation is important because identifying credible information often presents a challenge, particularly in online environments, such as websites or games, that offer reduced or limited cues, such as a lack of body language or tone of voice. Cues to credibility may be different from cues to misinformation and disinformation; however, this difference can be a matter of expertise and experience.

Online games are strong candidates for an empirically-grounded investigation of misinformation and disinformation. Because games are social spaces, they are also inherently information spaces as well, as described by Nardi. Most online games require deep knowledge in a variety of literacies because they are saturated with information required to advance in the game: how to set up your character, how to choose a good team, how to cast spells, etc. These are all opportunities to spread disinformation, to become misinformed, and to buy, sell, trade, and steal information, misinformation, and disinformation alike.
Some researchers have been interested in games as artifacts or as narratives. I am interested in, however, games as social experiences. By providing shared experiences and creating memories, games can reinforce existing relationships between players, described as bonding social capital by Putnam. By providing a current event or objective, and topics of conversation, games can help foster new relationships, labeled bridging social capital Putnam. Teams are a rich expression of the social experience of many games, and examining their roles in shared information behaviors, such as disinforming other players, and in facilitating social bonding and bridging may illuminate the social complexities behind misinformation and disinformation.

This research will address questions of how self-organizing, virtual teams of online game players distinguish misinformation from disinformation with a focus on how such a team might identify the cues to deception used by other game players, how a team could come to agreement about what constitutes a cue, how individual team members might interact with the broader gaming community for assistance, and how the team may respond to misinformation and disinformation. In this effort direct and participant observation and interview techniques will be used to understand how players recognize and respond to cues to misinformation and disinformation.

Brian Keegan
Northwestern University

Wikipedia’s coverage of breaking news events attracts unique levels of attention; the articles with the most page views, edits, and contributors in any given month since 2003 are related to current events. Extant scholarship on Wikipedia has made little effort to unpack the ways in which collaborations around new knowledge operate as processes distinct from those of traditional encyclopedic content.

Wikipedians editing these topics collaborate under conditions unlike those found on the vast majority of other articles: volatile information, highly-coupled work from dozens of simultaneous editors, and synthesizing entirely new knowledge. However, these processes are also illustrative of how socio-technical systems can support novel forms of high tempo, distributed, and temporary organization for vital social needs like disaster response, journalism, and political reform.

Wikipedians collaborating around breaking news events face profoundly complex information processing and task coordination demands. The intense and transitory nature of these collaborations likewise complicates theoretical assumptions about peer production and participation being motivated by communities with stable membership, norms, and routines. What processes govern the self-assembly of hundreds of individuals co-authoring content in response to unexpected events?

I draw on scholarship about how organizations operate in high-tempo situations, peer production and knowledge collaboration, and roles ecosystems in social media. Using data extracted from Wikipedia’s revision histories and IRC chat logs, I use methods in trace ethnography, content analysis, and network analysis to trace changes over the histories of articles. In particular, I use methods in statistical network analysis called p*/exponential random graph models (p*/ERGMs) to develop statistical models to separate out the influence of collaboration networks structuring themselves and external attributes structuring the network of editors and articles. These models allow me to test hypotheses from the trace data and content analyses into a statistical model which can empirically test the influence of various theories operating at multiple levels of analysis [10]. Such an analysis can untangle whether expert editors prefer to work with other experts, breaking articles attract editors who’ve worked on other breaking articles, or if editors prefer to work other editors with a breaking article background.

More recent work-in-progress has attempted to examine how dyadic patterns of revisions among editors coalesce into distinct structures for breaking and non-breaking articles. Unlike the lack of centralized coordination in non-breaking articles, highly central and clustered editors emerge on breaking articles in the aftermath of an event but these roles disappear as the event becomes less immediate. My ongoing work uses p*/ERGMs to model Wikipedia coauthorship data about genres of breaking news articles such as plane crashes and earthquakes. These findings suggest that the structures of collaboration networks are strongly influenced by exogenous attributes of editors (e.g., expertise) and articles (e.g., event location) rather than endogenous tendencies of the network’s structure. Future work will incorporate other quantitative dimensions such as the sentiment of editors or articles and consistency of structural roles across collaborations. Because news is inherently temporal, these analyses will also have a longitudinal dimension about how structures, roles, and practices change over the course of an article’s history.
Tanya M. Kelley
Arizona State University

My preferred topic of study is complex systems analysis, particularly in how the communication, actions, and interactions of citizens and organizations effect government. Information is rarely the focus of study in public policy and administration but variations in content and delivery can impact the formation and execution of public service, all of which contribute to quality of government service. E-government is a developing area of public service and much can be learned about how citizens interact in online forums and what the developing role of E-government has in macro government operations. Of particular interest is the cross section of citizen participation in government and participation in online activities for entertainment. While people have limited personal resources such as leisure time, knowledge, and finances, they do engage in activities that interest them. My research with Dr. Erik Johnston regarding information has examined how the application of serious games within open governance platforms can improve public participation. We conducted an exploratory analysis of key characteristics of successful participation and games along with currently operating open platforms, some that included game dynamics and some that did not, and created a theoretical framework for developing serious game participation platforms. The framework includes structural elements such as engaging platform designs, a variety of challenges in scope and topic, feedback and potential for organizational uptake; engagement elements present in the framework included the importance of motivation in personal empowerment, the opportunity to participate in areas of interest, and the combination of competition and collaboration in creating solutions to public problems. This line of inquiry will be continued and expanded through study of Arizona State University’s problem solving participatory website 10,000 Solutions, made possible through a National Science Foundation RAPID research grant. I am a funded Research Associate working with five primary investigators from different departments in examining the effectiveness of the 10,000 Solutions site in creating and sustaining collective participatory action. The research team will map participation spread within the network, the impact of feedback, and the degree and quality of various forms of civic participation. The project allows for design of the participatory system from inception to allow for a variety of experiments to be conducted, and a variety of analytical methods can be used on the data generated from participant activity within the system. I foresee using quantitative methods such as OLS regression and simulation modeling such as agent based modeling to illuminate motivations for participation in an open platform system. I am interested in studying the effect of organizational feedback and uptake of participant contributions as opposed to peer feedback.

Jes A. Koepfler
University of Maryland

Connectedness and participation are important values in this age of online information diffusion and social networking, but there are certain contexts in which the stakes related to these two values are increased. Consider an isolating illness like cancer or a stigmatized social experience like homelessness. Or consider less severe examples like moving to a new city or transitioning from the role of corporate executive to a stay-at-home parent.

My research seeks to understand how connectedness and participation as human values are made more salient through potentially marginalizing and disconnecting experiences. I am particularly interested in the ways in which the design of social features in technical systems (e.g. “liking”, crowdsourced information gathering, and consumer reviews) support or discourage connectedness and participation for different users. This research brings together literature and ideas from the fields of information science, human-computer interaction, human values and ethics, and technology-mediated social participation.

Within this broader research context, I am currently exploring the use of social media for value expression in the context of Twitter use and in the life experience of homelessness. The research questions I am grappling with take on theoretical, methodological, and practical implications. Theoretical
  • What is the impact of the user and use context on the expression of human values?
  • How can social connectedness and participation be understood as values salient to social media use? How do measures of social capital, relational investment, Web skill, and social ties contribute to our understanding of these values?
Methodological
  • What mixture of methods provides the most valid and reliable insights into value expression in socio-technical systems?
  • What are effective strategies for combining generalizable quantitative methods with qualitative case studies to ensure that the human beings behind the data points are not lost?
Practical
  • What social features support or discourage value expressions and for which types of users?
  • What is social media “good” for? Whom does it benefit? And under what use contexts?
I have conducted a series of studies looking at the use of Twitter by individuals who self-identify as homeless online. To expand those findings, I have developed and deployed a web-based questionnaire that uses Schwartz’s Portrait Values Questionnaire, adapted items from the Facebook Intensity Scale and social connection items, and new portraits placing values within the context of Twitter use. The results from these three studies along with the work of others will support research to use a values-sensitive design approach for augmenting an existing resource tool (http://www.thebridgeprojectdc.org/) with social features. The goal of the project is to test each social feature with the relevant stakeholder groups 1) to illuminate and mitigate value conflicts that often arise when end users are given voice in a hierarchical social system, and 2) to identify what types of social features are most effective for improving health and human services systems overall.

HyunSeung Koh
Indiana University Bloomington

The rate of acceptance of ebooks – books in digital formats – is growing rapidly. Yet studies show that for intensive or active reading people still prefer to read on paper, and that they employ skimming strategies when reading from a computer screen, implying that currently available ebooks do not fully support active reading.

This study will employ reader-response theory as an overarching perspective that guides but does not dictate its parameters. The core tenet of reader-response criticism is that the meaning of texts is always constructed from an interpretive act on the part of the reader. Reader-response theory is appropriate for a study of active reading because of its emphasis on the active role of readers and the interactional/transactional nature of reading. From the theory, this study draws particularly on three representative but distinct approaches: structuralism, subjective criticism, and phenomenology.

- Structuralism emphasizes the role of the text in guiding interpretation
- Subjective criticism emphasizes the role of the reader in bringing meaning to the text
- Phenomenology emphasizes the transaction between the reader and the text

The broad research questions that will guide this study are:

- What types of reader interaction with texts occur, as viewed in terms of the three approaches of reader response theory?
- What types of reader interaction with texts occur, beyond the three approaches of reader-response theory? In other words, what factors, beyond readers or/and texts, play an active role in reading (i.e., meaningmaking)?
- What kinds of reader intentions, needs, and desires underlie the types of reader interaction with texts identified from the first and the second research questions?
- How can readers’ intentions, needs, and desires identified from the third research question be translated into “the design of interactivity, or form that changes and reacts to input over time” in ebook devices that enhance readers’ interaction with texts?

Taking a naturalistic inquiry approach, this study is designed for data collection to cause minimal interference in participants’ silent reading and require a minimum amount of effort beyond reading. The study will consist of five phases that are designed to collect a wide range of reader interactions with texts in relation to active reading processes (e.g., sequence of reading) and outcomes (e.g., annotations) using diverse reading devices (including paper, computer screen, electronic reading devices, and iPad).

A quantitative survey in the first phase will be used to identify a purposive sample(s) or meaningful target group(s) to be investigated in-depth in subsequent phases, using qualitative methods including annotation analysis, interviews, and video study. In other words, this design uses a quantitative survey to situate subsequent qualitative data in “a broader context” and identify “representative cases”.

The potential contributions of this study are theoretical, methodological, and practical. It will initiate theory-driven research into ebook use and expand reader-response theory in the context of ebook user research. Future ebook design research may benefit from the novel methodology, which is designed to collect a wide range of naturalistic data in real time, as well as from the study’s attempts to understand both observable and unobservable.
Hannah Kwon
Rutgers University

While research in human information behavior has begun to shed light on how people interact with information in a multitude of distinct contexts, it has yet to provide deep insight into basic information phenomena. Just as Georg Simmel introduced a formal sociology that isolates forms such as conflict, competition, and cooperation from the diverse content of human interactions throughout history and across cultures, a formal approach to information studies should identify the basic forms of human information interaction that occur across many different settings throughout space and time. Forms such as relevance, authority, trust, information encountering, and gatekeeping are present in the literature, but the research is generally limited to specific contexts rather than taking a cross-contextual view that reveals not the content of the specific user context, but the formal dimensions of the phenomenon itself. My research agenda is to identify and illuminate, using the methodology of social pattern analysis, the fundamental phenomena of human-information interaction.

The form that I address in my dissertation research is questioning. Questions are the functional interface of the inquiry process thus framing all interactions with information, but researchers in the information field have long been more concerned with answers than questions. As Kearsley reminds us, asking a particular question in a particular way conveys information as well as requests it. It is precisely the unstated aspects of the question – the questioners’ epistemological presuppositions – that reveal the parameters for how questions should be answered.

In order to better understand the relationship between stated questions and unstated presuppositions, my dissertation considers a single topic – the September 11th attacks – as investigated by researchers from diverse academic domains. What types of questions are posed by researchers from diverse domains? What are their epistemological presuppositions and how do they relate to the domains’ questioning practices?

A sample of dissertations will be coded according to: (1) the stated research questions, as comprised of subjects and queries and having linguistic, semantic, and pragmatic dimensions; and (2) the unstated epistemological presuppositions that are embedded in the dissertation as an epistemological object. Since epistemological presuppositions are, by definition, unstated, a methodological approach called “comparative optics” will be utilized, in which “each pattern detailed in one science serves as a sensor for identifying and mapping (equivalent, analog, conflicting) patterns in the other. A comparative optics brings out not the essential features of each field but differences between the fields.”

The subsequent analysis will reveal if and how question types are related to epistemological presuppositions, thus identifying the boundaries of academic domains (in the domain analytic sense proposed by Hjørland and Albrechtsen) and the nature of their questioning practices in relation to the topic of the September 11th attacks. Domain-general questioning practices will also be identified in order to illuminate the cross-domain aspects of questioning. Subsequent research will extend the study of the nature of questioning to non-academic contexts such as library reference services, professional and other occupational environments, leisure contexts, and everyday life information seeking topics such as contemporary politics and religion.

Andrew J Lau
University of California, Los Angeles

My research interests gravitate around the intersection of archival and information studies, contemporary art discourse, and socio-cultural studies of technology, with focuses on concepts of the record and of the document across form. Specifically, I am interested in documentation practices in the arts, and how these practices might challenge and ultimately enrich archival theory and practice and information studies. Studying documentation practices is crucial for projects in contemporary art that emphasize performative, participatory, and/or experiential dimensions, particularly for the event-specificity of such projects. What strategies might be employed to capture spatio-temporally specific aesthetic events? How might values of participation and experiential experimentation, which are threads of pervasive interest in contemporary art, be translated into its documentation, beyond mere description or representation?

My dissertation research consists of ethnographic research conducted with the Los Angeles-based not-for-profit artist-run organization called Machine Project. Operating both a storefront gallery in Echo Park and as a loose association of contemporary artists, performers, curators, and designers, Machine Project seeks to make “rarefied knowledge accessible” through workshops, site-specific installations and performances, lectures, and various participatory projects. Machine Project exists as but one instantiation of a larger movement in contemporary art around “alternative spaces,” or organizations
and projects that resist and/or refigure the discursive structures imposed on art by institutions of cultural heritage and the art market. These alternative spaces, which may be non-profit or artist-run or both, often operate with a Do-It-Yourself and independent ethos, and are often sustained by its communities of artists and the publics that support them. Many of the efforts of alternative spaces are process-based operations, whether as an exhibition space for experimental forms of contemporary art, forums about discussions in contemporary art, or other functions. This often leads to scattered and/or fugitive documentation about the events, programs, and operations of alternative spaces. This documentary problem was highlighted by artist Julie Ault in her critical analysis and chronology of alternative spaces in New York between 1965 and 1985. Historically, alternative spaces are invested in community building, the public circulation of aesthetic knowledge, the exposing of museums and other bastions of cultural heritage as discursive frames, and public participation. How does documentation serve to support such orientations? If an alternative space, such as Machine Project in my dissertation research, describes its socio-cultural functions in terms of values like community participation and relational aesthetics, how might such values be translated in the production, circulation, and preservation of informational objects?

For my research, I draw extensively from Niklas Luhmann’s social systems theory and Michel Serres’ theory of the quasi-object. While both are distinct in their respective epistemological and ontological scopes, both (particularly in concert with one another) overlap in their interests in collectivity, associations between subject and objects, and the problematization of the subject-object relation itself. Such investments are present in posthumanist discourses, which I consider to be integral to my research and its guiding methodological frameworks.

Lysanne Lessard
University of Toronto

My research interests centers on the use of conceptual modeling to support the design of relationships and activities within and among socio-technical systems; these systems encompass people, technology, information, processes and more. My particular object of study is knowledge-intensive business services (KIBS) such as information services, computing, and research and development services; these types of service activities are important sources of performance and innovation in industrialized economies, yet current literature on KIBS has rarely addressed how best to support their design. I thus draw from the framework of value cocreation developed within the field of service science to develop design tools for KIBS. This framework allows parties engaged in KIBS relationships to be understood as service systems - collections of specialized resources (people, technology, information, etc.) organized in a manner that enables value cocreation from their perspective. However, a full understanding of the value cocreation process has yet to be developed; moreover, this understanding needs to be transformed into design tools in order to provide practical design support to KIBS professionals.

Rooted in a Critical Realist perspective, my dissertation research aims to identify key mechanisms of value cocreation in KIBS, and express them through a modeling technique that can support KIBS analysis and design. Research activities are guided by a design science research (DSR) methodology, which aims to develop practical solutions that can be used by professionals in their field. In line with DSR, value cocreation mechanisms are identified through a multiple-case study of academic research and development service engagements as a type of KIBS.

Preliminary results provide empirical support of mechanisms currently proposed in literature and identify mechanisms that have not yet been accounted for. Mechanisms of value cocreation supported by this study include the creation of value propositions where service systems commit to apply their operant resources (e.g., knowledge and skills) to produce something of benefit to others. Results also show that these benefits are perceived as important only insofar as they meet a service system's high-level interests. In order to account for these mechanisms, service systems are conceptualized as intentional agents that form interdependent relationships as they try to reach their goals; this is achieved through i* (short for distributed intentionality), an agent-oriented modeling technique. i* models can represent and support the analysis of the relationships between resources and activities involved in a service engagement process, and the expected benefits and high-level interests of collaborating service systems. Current service-specific modeling techniques support the design of service activities, but are unable to link those to the benefits and interests that motivate KIBS relationships.
This research is a first step toward a KIBS-specific theory of value cocreation. It also has practical applications for KIBS professionals who could use this adapted modeling technique to analyze alternative ways of meeting the interests of their clients, suppliers, and third-party collaborators. Resulting models could also be used to design information systems supporting KIBS relationships. Further work will modify the modeling technique in order to account for aspects such as the adaptability of value propositions.

Karen E.C. Levy  
Princeton University  
My research uses a unique lens to examine socio-technical systems: the discursive frame of legal regulation. My background lies within the legal and social science fields. I earned my J.D. in 2006, and subsequently worked within the United States Federal Courts. I am currently formulating my dissertation within Princeton’s doctoral program in Sociology, in which I bring legal and sociological methodologies to bear on my study of sociotechnical systems.

In my research, I consider interactions among several overlapping systems of regulation: law (which I define rather loosely as rule or fiat, often but not always the pronouncement of a state body), the built environment, and technological systems embedded in everyday objects (e.g. “smart” systems). Each of these modalities constrains (and is constrained by) social behavior – by regulating action and interaction, shaping meaning and identity, and affording differential access and privileges. I posit that the regulatory power of the built environment, which typically serves as a fairly “blunt tool” for social control, is sharpened when it is technologically augmented in order to respond to electronic personal data and afford fine-grained differential privileges to users (and often to monitor their behavior). As such, I consider the technologically augmented built environment as an emerging social control modality that can effectively combine the selfenforcing nature of architecture - which law, needing to be externally enforced, lacks – with a fine-tuned ability to make distinctions among individuals, sharper even than that of traditional law enforcement.

I am particularly concerned with how individuals and groups conceptualize and negotiate regulation as it is deployed through various modalities, and how power is incorporated in different regulatory systems. How do individuals and collectivities construe their identities as “regulated” bodies? Are different modalities perceived as differentially legitimate – for example, are technological means of rule enforcement perceived as transparent, arbitrary, or discriminatory? How and why do individuals contest, resist, or reappropriate control by technologically-enhanced systems? In exploring these issues, I draw from a number of different literatures – primarily jurisprudence and sociology of law, architectural and urban theory, and the social construction of technology.

Within this frame, I am currently working on several projects (discussed in more detail in the Abstract submission). I am working to refine my theoretical and analytic frame in preparation for writing my dissertation prospectus. I am currently conducting fieldwork with independent and freelance workers in New York City about modalities of self-regulation – how they make use of the affordances and limitations of technological systems, the built environment, and self-imposed rules in structuring their work routines and practices. I am in the early stages of conducting dissertation research about the use of in-vehicle monitoring technologies in the long-haul trucking industry, with emphasis on the regulatory and organizational contexts within which the technologies have been developed and deployed.

I hope my perspective might add productively to the work of the 2012 iConference Doctoral Colloquium, and I would certainly have much to learn from the experience. Thank you for your consideration.

Jessa Lingel  
Rutgers University  
Information tactics and technological protocols of immigrants in urban environments  
A danger of coming to see a particular technology as ubiquitous is the assumption that its use is homogenous. As a researcher, part of the lure for studying information practices tied to and shaped within communities, particularly non-dominant groups, is the belief that close examination of marginalized communities yields rich and important insights into technological appropriation, improvised information practices and social construction of technologies. My dissertation addresses the acculturation processes of immigrants (also called migrational individuals) in urban environments. The specific area of inquiry for this project centers on the ways in which migrational individuals in
urban areas acquire, share and use information about new neighborhoods. As such, this project is guided by an interest in addressing the following research questions:
RQ1: What are the information practices of transnational migrants in urban environments?
RQ2: How, if at all, are these localized information practices used as either or both: A. Coping strategies for the navigation of unfamiliar city spaces? B. Appropriations of technologies and productive acts of social construction?

These questions are thus centered on understanding how social fabric shapes the practices and protocols of information and technology. In exploring the lived experiences of city newcomers, it becomes possible to think about and critique assumptions about how information and technologies are being used tactically, provisionally and heterogeneously.

A central theoretical framework for this project is taken from Certeau’s work on the relationship of individuals to structures of culture and politics, particularly in the context of cities. For my purposes, the most useful of Certeau’s constructs is the notion of tactics, or daily practices of dealing with the restrictions and apparatuses of dominant cultural institutions. To illustrate the division between tactics and strategies, Certeau describes the ways in which residents of urban spaces create singular methods (or tactics) of navigating space in ways that are individual, playful, mischievous and bear little resemblance to the planned, official discourses (or strategies) for organizing cities. In my dissertation, I aim to document and theorize the everyday tactics used by migrational individuals to become familiar with city space, particularly in terms of information and technology. At its most fundamental, the purpose of this research is to identify information practices and technological protocols used by migrational individuals to construct knowledge of new city spaces. Bowker and Star argued that systems of organization and infrastructure become invisible to those who use them most. By exploring and documenting the information practices of newcomers to an urban area, I hope to expose some of the practices and tactics used by city natives, but obscured by daily use. As well, I seek to contribute to research on migrational individuals, who are understudied even as they constitute a group that stands to benefit from increased awareness of publicly-available information services and resources.

Safiya Noble
University of Illinois at Urbana-Champaign
Google is mediating public access to information more than ever. In my current research, I foreground the issues of search engine monopolies and how they bias problematic racial and gendered representations of women in the first page of a web search. This research examines how keyword searches in commercial search engines are explicitly political and economically driven and need to be reconsidered in the context of information reliability, consumer safety and control or influence over identity. The goal of this research is to contextualize the environment in which search is being produced, and highlight the interplay between media consolidation and information quality provided by commercial search engines – especially the market leader, Google. This research is also intended to trace how gender and race are socially constituted and mutually constituted through science and technology, with a specific focus on how “neutral” technologies foster dominant narratives that may reinforce oppressive social relations, particularly the pornification of Black women and girls and more broadly, women in general.

Roy Nyberg
University of Oxford
Studying information and social change requires some careful thinking. Transition from the more manufacturing-oriented society to a post-industrial society might make one think that social life is all about information now, despite the obviously still-ongoing production of material goods, whether of everyday or of more specific use. Undoubtedly the attention on the role and use of information has intensified, e.g. any material product will carry large chunks of information with them, largely for logistical as well as regulatory reasons. Many a scholar have taken up Daniel Bell’s torch - e.g. one of the more prominent bearers has been Manuel Castells - and have taken it further by immersing observations and insights from the developments in information and communication technologies from the 1990’s onward. Generally speaking the argument of this set of writers has been that we are witnessing an information revolution, the coming of a radically new form of living and society. Yet, as Webster has pointed out, many such arguments take the increase in the quantity of information as a proxy for social change, i.e. as a change into an “Information Society”. Webster refers to Giddens, who has remarked that “modern societies have been ‘information societies’ since their beginnings” and therefore qualitatively and thus fundamentally little has changed in hundreds of years. Webster’s main argument therefore is that we ought to look for qualitative changes, as they are more appropriate evidence of how changes in the use of information have changed society and lives. A social scientist studying change then ought to track qualitative changes in the use of information.
However, studying a qualitative change in the flow of information in society might not be that easy. It seems to be easier to study information in quantities. Scholars from various backgrounds have adopted methods to measure the quantities of information by measuring quantities of bits, of network ties, of hyperlinks and so forth. Studying qualitative changes in society’s use of information appears to be more difficult. Traditional social science methods are still available and appropriate to investigate behaviour in social settings, and when the object of the study are individuals there may be little difficulty in orienting the study toward information exchange (as opposed to behaviour, thoughts, feelings, impressions, etc.). For studying organisations, i.e. information exchanges between organisations, these methods may be found inadequate or less than ideal.

My doctoral research focuses on social change that involves communication technology arriving in a new societal area. The empirical case of the study is mobile communication technology arriving into the area of health care. While there are many interesting questions one can pursue in this area, such as can we theorise about the relationship of this particular general-purpose technology and the accompanying administrative changes, information related questions are more or less at the heart of any research approach in this work. A large scale adoption of mobile technology into the processes in health care can have vast changes in the organisational arrangements for service delivery. In this equation between health care organisations, health care professionals and patients mobile technology is a carrier of information. How to capture that information, and how to think of it as data of organisational change, are questions that go beyond a more clear cut organisational study.

Lindsay Reynolds
Cornell University
In many group work situations, there is a division of labor for tasks which leads to differentiated roles. Members of a group hold role expectations, which are understandings of their roles as well as the roles of others in the group. However, sometimes these role expectations are not clear among members of a group, which leads to a reduction in role clarity. Role clarity has been argued to result in more enjoyable and effective group work.

Research on role clarity in collocated groups has identified ways in which group members establish role clarity, but often these strategies rely on a shared environment (e.g., public role enactment, observation of others’ activities in the environment). Since group members in geographically distributed settings are unable to engage in these strategies, technological systems must better support role clarity.

Visual awareness displays can be employed to help promote role clarity in distributed workgroups. These displays can help provide some of the contextual information about group members that is available in the environment in collocated settings.

Dourish and Bellotti describe the role-restrictive model [2] of awareness information, which allows for tools and activities to be divided among roles. However, role-restrictive awareness displays can instead filter information about the activities of others according to role. In situations where roles are more ambiguous, these types of awareness displays may be helpful in indicating to group members which roles they should fill.

Using visual awareness displays to promote role clarity can be explored by examining groups of players collaborating in Multi-player Online Games.

These games are an interesting environment for studying collaboration because players perform a variety of dynamic and interdependent collaborative tasks. Furthermore, they have applications to other activities, as they have been identified as spaces that are suitable for conducting teamwork training for real-life scenarios.

In these games, players have visual awareness displays which provide information about the status and activities of their group members. However, all group members receive the same information, regardless of their role in the group. While some role distinction is determined by the character a person plays (which they select when they begin the game), there is role ambiguity among many of the characters. Tailoring awareness displays by character may alleviate some of this ambiguity.

To explore this, I would first explore groups of players collaborating in a natural setting to determine situations and factors associated with role ambiguity. I would then develop a role-based awareness display drawing on the factors identified in the exploratory phase, and compare the role-based display with a traditional awareness display in a controlled, experimental game setting.
One challenge I envision with this study is determining the best way to sort information by role for an awareness display, as there may be multiple ways of doing so. For example, the group leader could set the roles at the beginning of the task, or the roles could be negotiated by the group and be open to reinterpretation over the course of the task.

**Sayaka Sugimoto**  
University of Toronto  
The rapid increase in the number of people suffering from clinical depression is a global concern. By 2020, depression is going to be the second leading cause of disability for all ages and both genders in the world. Today, depression affects 121 million people worldwide and 2.5 million people in Canada. However, less than 25 percent of patients access appropriate treatment due to a combination of lack of knowledge and stigma associated with mental illness. As a result, the majority of patients remain untreated and continue to suffer.

An increasing number of patients turn to the Internet to seek information and support. Online support groups, in particular, have shown a strong potential to foster supportive and resourceful environments for patients without restrictions of time, space, and stigma. However, many aspects of depression online support groups remain unknown due to the scarcity of research. For instance, little is known about how different kinds of users use and benefit from online support groups differently.

In order to contribute to filling the knowledge gap, my research aims to examine the nature of interaction in a depression online support group by analyzing what kinds of information are exchanged in the community and what the characteristics of users who request or give the information are. After examining those questions, I plan to explore the relationships between the characteristics of users and nature of their use. More specifically, I plan to examine how user characteristics, such as gender, ethnicity, age, illness severity, and treatment history, affect the way users receive or offer specific types of support. To explore those questions, my study employs mixed methods in three stages. First, a systematic random sampling will be conducted to select approximately 1000 postings made in a selected online community for people with depression. Demographic and clinical information of the users who made those posting will be recorded. Second, content analysis will be conducted to examine the type of support exchanged through those postings. The coding scheme developed by Bambina will be used with modifications to classify support types. Third, a set of statistical analysis will be conducted to examine the correlations between user characteristics and types of support they requested to and received from others in the community.

This research will contribute to the fields of health informatics and computer-mediated by providing empirical evidence about who use online support groups and what users benefit from online support groups and offer valuable insight on how different users benefit from support groups differently. Currently, people are using depression online groups without clear understanding of benefits and risks of participating in those groups. Due to the scarcity of literature, neither health care professionals nor administrators of those support groups know the advantages, disadvantages, or health outcomes of participating in the support groups. The findings from this study will help health care providers and caregivers whether they can encourage their patients to use online support groups and what kinds of benefits users can generally expect from their participation.

**Michael Wartenbe**  
University of California, Los Angeles  
My research is situated within three broad areas within or related to the field of Information Studies: Archival Science, Bioinformatics, and Science and Technology Studies. At the highest level, I am interested in the politics of information technology and records systems, in particular, how technology and documentation act as mediaries between subjects and institutions.

The dissertation project on which I am currently working (tentatively titles Digital Patients: The Politics of Personal Electronic Health Records) focuses on the institutional context of healthcare and is concerned with the politics of digital patienthood, particularly as they relate to electronic health records and practices of self-surveillance.

The dissertation project takes as its starting point the signing of the Stimulus Bill in 2008 and the billions of dollars of investment in Electronic Health Records (EHR) new regulations regarding health information it created.
The project provides extensive accounts and analyses of the constellation of personal, professional, economic and legal issues surrounding the impending/ongoing transition from paper medical records to Electronic Health Records (EHR) and the increasing trend toward personal responsibility for the creation, sharing and maintenance of health information. Of primary interest is understanding the relationship between the technical, legal, political, economic and professional frames of EHR and the subjectification of patients. This entails attention to the 1.) emerging dynamics between formal administrative records and personal records, 2.) Subjectification, digital self-surveillance and practices of recordkeeping and 3.) personal health information practices as both highly individual and broadly sociopolitical.

The project contributes to existing literatures theoretically, empirically and methodologically in the following ways.

a.) The project advances theoretical discussions within health informatics, electronic records management and medical anthropology by addressing the deeply political and personal issues surrounding electronic medical documentation and specifically self-documentation of health data. It draws on philosophical and sociological literatures on subjectification that examines how institutional formations both express underlying sociocultural dynamics and modulate (and are modulated by) individual and collective identities. The unique contribution of the project is its attention to the role of records and documentation and the emerging dynamics between formal administrative records and personal records.

b.) Empirically, the account produced will consist of data and observations that acknowledge and describe the inextricability of the technical, economic, professional and regulatory and individual aspects of personal health information from one another. The empirical account does not attempt to isolate these factors, but sees them as deeply and meaningfully connected in even the smallest details of everyday practice.

c.) The methodological contribution of the project consists in a combination of linked mixed-methods anchored by Structured Self-Observation as the primary source of observational data. This represents a relatively unique contribution to health informatics. By studying the relationship between medical documentation, recordkeeping and subjectification by employing an empirical method that calls on its subject (the researcher) to mimic the phenomenon that informs the research (personal health information practices), a dynamic is put in place that allows for a unique reflexivity and auto-explication with regard to the relationship between research subject and research object.

Laura Wynholds
University of California, Los Angeles

The digital curation of scientific research data has become a major topic of discussion in recent years. It has been a particularly complex issue to address, with deep implications for issues of scholarly work, merit, value, policy, publication, open access, public good, public accountability, privacy and so on. Within this discourse, digital curation is generally understood as bringing preservation, archiving, use, and access considerations into decisions regarding the long term management of digital objects. This research uses the term scientific data to refer to the organized documentation of evidence of a given scientific research project or scientific agenda, whereas the dataset is used to refer to a specific digital object or record.

The discourse around scientific data follows two major themes which are somewhat contradictory. On the one hand, with the dominance of the search engine paradigm in digital access in the larger digital ecosystem, many authors assume that continued growth in the algorithmic power of search will defeat challenges of poorly and variably structured data. One the other hand, scientists across a wide sweep of disciplines are finding the epistemic and structural heterogeneity of scientific data to be a major challenge to curation, aggregation, and reuse.

Epistemic and structural heterogeneity of data is the result of numerous complex and interdependent systems, such as research questions, domain norms, scholarly publication and merit systems, and tenure and promotion processes. Some practices are naturally divergent in terms of standards, formats, language and structure. Others are cohesive around standards, formats or languages is an active and constantly reinforced activity, rather than a natural progression.

Given that scientific data exhibit a high number of contextual, intellectual, and environmental dependencies on their validity, one should expect to see processes by which these dependencies are mitigated in order to render the data transferable from one context to another. Implicit in the transfer of scientific data in this context is the purpose of portability, namely use. This research has taken to referring to these processes of making data usable outside its original context of creation as
‘hardening’ data. This project examines the hardening processes by which scientific data are transformed from raw inscriptions to an object of utility and encoded information. The project asks, ‘What hardening processes do we see? How do hardening processes affect scientific data curation, especially in regards to heterogeneity?’

I am proposing a multi-sited, mixed methods, qualitative study of data curation practices by researchers associated with the Sloan Digital Sky Survey (SDSS) and the Center for Embedded Networked Sensing (CENS). These two projects represent instrumented small science with researchers localized around embedded sensor networks (CENS) and instrumented big science with researchers localized around large telescope projects (SDSS). Using a combination of interviews, document analysis, participant observation and social network analysis, I will focus on the ways that researchers document, describe, annotate, organize, and manage their data, both for their own use and the use of researchers outside of their project.

This study is designed to characterize hardening processes observed in major research grants, one data-driven (SDSS) and one technology-driven (CENS) with the goal of understanding how hardening processes affect scientific data curation, especially in regards to heterogeneity. This study will provide guidance for developing data selection policies, processes, and technological systems for future large-scale data and information infrastructure projects, and thus inform best practices for managing and curating research data.

Ji Yeon Yang
University of Michigan

Advances in enterprise search technology have allowed organizational workers to become more self-reliant than ever before in seeking information. However, complete reliance on technology for information is insufficient especially in transferring non-codifiable knowledge in organizations. Organizational workers, therefore, still heavily rely on personal contacts with their colleagues for the guidance toward credible information. Those colleagues assume the role of information mediators, those to whom information seekers turn for advice in finding, selecting, evaluating, or using information such that their opinions or first-hand experience may influence the seekers’ subsequent information behavior and, ultimately, their decision making.

While previous studies on information mediation have contributed to our understanding of who information mediators are and what they do, no study has examined with what intentions information mediators assist information seekers and how the mediators’ advice actually influences the seekers’ subsequent information behavior. One of the objectives of this study is to fill the gap in the research by investigating the intentions and influences that underlie the information mediation practices. Specifically, my study examines the trustworthiness of information mediators and the credibility of their advice as main determinants of their influence. The other objective is to examine the values that information mediation produces over time. In order to systematically support the information mediation, it is crucial for organizations to understand the values, not only positive but also negative, from the perspectives of both information seekers and information mediators.

To accomplish these objectives, I will conduct a case study at an R&D department in a large manufacturing company through which the information mediation practices can be explored in a natural setting. Data collection will include two phases: diary survey and in-depth interview. Online diary survey aims at capturing a variety of information mediation situations, both advice-giving and advice-receiving, over time. Once the diaries are collected, I will conduct semi-structured interviews with the selected diary participants according to who submitted the highest number of diaries. During the interview, the participants will be asked to recount each diary episode and provide in-depth narratives focusing on their trust of information mediators and its effect on their acceptance of advice. The study instruments have been tested through a pilot study at a small-size local software development company.

Insights gained from this research would contribute to developing a theoretical framework for understanding the social and interactive process of judging information credibility that occurs between information seekers and mediators. This study will also inform the design and implementation of workplace social media to better support the process of information mediation.