CONFERENCE PROGRAM

7th Annual Informatics
Spring Research Conference

April 27, 2012
8:30—5:45
WELCOME

Conference Planning Team
Amanda Danko
Catherine Dumas
Norman Gervais
Loni Hagen
Dima Kassab
Ethan Sprissler

Conference Supporting Team
Dr. David F. Andersen
Dr. Deborah Lines Andersen
Dr. Neil Murray

CCI Assistant Dean Jennifer Goodall
CCI Office Nan Carroll

Department of Informatics
College of Computing and Information
University at Albany
Schedule at a Glance  
April 27, 2012

8:30-8:45  Registration
Assembly Hall

8:45-9:00  Welcome Address
Assembly Hall  Dean Peter A. Bloniarz  
President George M. Philip

9:00-9:30  Keynote Speaker
Assembly Hall  Dr. Stacy Hobson

9:35-10:40  Parallel Session Presentations
Lenore Horowitz & Avinash Bachwani—Assembly Hall  
Ning Sa, Tianchi Zhang & Yanfei Chen—CC375

10:40-11:00  Break

11:00-11:30  Parallel Session Presentations
Sreekumar Nampoothiri—Assembly Hall  
Jeongyoon Lee—CC375

11:35-12:05  Parallel Session Presentations
Robert Ekblaw—Assembly Hall  
Djoko Sigit Sayogo—CC375

12:05-1:35  Lunch and Poster Sessions
Fireside Lounge

1:45-2:30  Keynote Speaker
Dr. Sreejit Chakravaty—Assembly Hall

2:35-3:05  Parallel Session Presentations
Stephen Lackey—Assembly Hall  
Xiao Liang—CC375

3:10-3:40  Parallel Session Presentations
Catherine Stollar Peters—Assembly Hall  
Minyoung Ku—CC375

3:40-3:50  Break

3:50-4:20  Parallel Session Presentations
Weiyi Sun—Assembly Hall  
Weijia Ran—CC375
Schedule at a Glance
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4:25-4:55 Parallel Session Presentations
Matt Frey & Darshan Shinde—Assembly Hall
Mohammed Gharawi—CC375

5:00-5:30 Parallel Session Presentations
Alex Trofimovskiy—Assembly Hall
Manabu Nakashima—CC375

5:35-5:45 Closing Remarks
Assembly Hall
Dr. Jennifer Goodall
The Department of Computer Science is proud to offer NTCS: a series of short talks given by its PhD students on topics related to their research
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Assembly Hall  Dr. Stacy Hobson

9:35-9:50  Ru Shen
Terrace Lounge

0:500-10:05  Ching-Sheng Lin
Terrace Lounge

10:05-10:20  Rohini Vabbalareddy
Terrace Lounge

10:20-10:35  Peter Hibbs
Terrace Lounge

10:35-10:50  Serdar Erbatur
Terrace Lounge

10:50-11:05  Kim Gero
Terrace Lounge

11:05-11:20  Chris Bouchard
Terrace Lounge

11:20-11:35  Paul Olsen
Terrace Lounge

11:35-11:45  Alan Labouseur
Terrace Lounge

11:45-12:05  Sean Spillane
Terrace Lounge

12:05-1:35  Lunch and Poster Sessions
Fireside Lounge
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## Schedule at a Glance
### April 27, 2012

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8:45-9:00 Assembly Hall  Welcome Address
               Dean Peter A. Bloniarz
               President George M. Philip
               Facilitator—Catherine Dumas
9:00-9:30 Assembly Hall  Keynote Speaker
               Dr. Stacy Hobson
               Facilitator—Norman Gervais

Presenter Bio:

Dr. Stacy Hobson is a Research Staff Member at the IBM T.J. Watson Research Center in Hawthorne, New York. Her research focuses on collaboration, information integration and business service solutions. Her prior work included the study of information sharing and integration in municipal governments, the use of cloud computing for smarter cities and cross-agency coordination of emergency response efforts.

Dr. Hobson was one of the lead researchers on the Municipal Shared Services Cloud project, a joint study with municipal associations in New York and Michigan to determine ways to enable efficient and customizable data sharing capabilities across disparate municipal applications in a loosely coupled manner. Dr. Hobson’s more recent research focuses on integrating data from multiple sources for systemic risk analysis for the financial services industry.

Dr. Hobson is currently the Chair of the Service Science Professional Interest Community at the Watson Research Center. In this role, she is responsible for shaping and promoting the research agenda in Service Science and fostering broad collaboration with the external academic community in this discipline.

Dr. Hobson received her B.S. and M.S. degrees in Computer Science from South Carolina State University and Duke University (respectively) and a Ph.D. in Neuroscience and Cognitive Science from the University of Maryland at College Park.

Dr. Hobson has 10 U.S. patents pending and has authored over 15 peer-reviewed publications.

Abstract: (next page)
Abstract:
Innovation That Matters: The Changing Face of Research

Over the past 20 years, there has been a cultural shift in many IT-based industrial research organizations from focus primarily on research for the advancement of knowledge to research that has a direct impact on businesses and society. This trend is apparent in IBM Research with our progression from isolated research, to open research collaborations with universities and clients, now on to research that utilizes the ‘world as our lab’. Many of our projects that started out as small, focused efforts later grew to gain worldwide recognition and application. For example, the IBM Watson research project began as an effort to compete in Jeopardy and is now being applied in the real world for medical diagnosis and improved customer interaction in banking.

Similar shifts in the applicability of research can be seen with advancements such as social networking and crowdsourcing seeing an extension to use in businesses and in crisis management, the transition of cloud computing from an IT business paradigm to a model for everyday personal use, and people-focused research in areas such as neuroscience, and cognition being applied in computing, e.g. artificial intelligence, and cognitive computing.

In this talk, I will describe how the research at IBM and other organizations have changed over time, how the emergence of this new research era ultimately impacts how businesses operate and how people work, and I will suggest implications for the focus of future research.
Abstract:
Exploring the Impact of Program Structure on Student and Faculty Scholarly Communities in Interdisciplinary Ph.D. Programs

The Information Science doctoral program at UAlbany has faced many of the same challenges found in highly interdisciplinary programs across educational institutions worldwide such as complex curricula development, abundant discipline languages and cultures, and stakeholders clinging to the traditional, single-discipline university system. In 2005 the Information Science Ph.D. program faculty redefined the program's structure in hopes of addressing the challenges it was facing. Three innovations in the revised program included the formation of student communal cohorts, the inclusion of a four-semester research seminar, and the incorporation of an annual, on-campus research conference.

The overarching goal of this research was to determine first if the implementation of the revised Ph.D. program structure affected, together, the development of a community of practice and the relationships of both doctoral students and faculty in the program and second, if the revised program improved doctoral student retention rates along with shortening time to degree completion. Drawing on data collected with both students and faculty present before, during and after the transition to the new program structure, a mixed-method research strategy, including content analysis, web-based surveys and semi-structured interviews, explored the experiences of program faculty members’ and doctoral students’.
Parallel Session Presentations
Avinash Bachwani—Assembly Hall
Facilitator—Norman Gervais

Presenters Bio:
Avinash Bachwani is a second year doctoral student in the Informatics program. His primary specialization is in Health Informatics and secondary specialization in Decision & Policy Sciences. His research interests are in engaging users through social media, developing open-source order sets for Computerized Physician Order Entry and implementation of various stages of Electronic Health Records to achieve “meaningful use.”

Abstract:
Social Media in Public Health Communication and Engagement
Public-health organizations that use social media constantly face two solipsistic challenges: (a) to continually disseminate high quality health-related information, and (b) to keep patients and their caregivers engaged meaningfully.

The vast majorities of patients do not attend traditional in-person support groups but instead, choose to mobilize their “social convoy of family members, friends, colleagues, fellow patients, and caregivers” (Fox, 2011). Members of this social convoy are in turn connected online via email and social network sites. By tapping into personal networks, social media leverages this crucial point of information sharing into a constructive dynamic that empowers people to make safe and healthier choices. The latter property serves to foster engagement rather than simply disseminating information.

The underserved Guyanese community continues to build a substantial presence in Schenectady county. They bear an unusually high prevalence of Type II Diabetes associated with earlier end-organ damage. In May 2011, Schenectady County Public Health Services launched a Facebook page as part of its overall strategy to engage users from this community in their fight against diabetes and disseminate high quality contextually relevant health-related information. The presentation will share data and knowledge gained from this campaign.
Presenter Bio:
Tianchi Zhang is a second year PhD student in informatics at SUNY Albany. His primary specialization is Geographic Information System (GIS) and also Knowledge Organization and Management (KOM). My research interesting is transportation information system. He obtained B.S degree in urban planning from Nanjing University, China and M.S degree from University at University in transportation planning.

Abstract:
BRT Development in Albany NY
Bus Rapid Transit (BRT) is generalized as an approach for using buses as an improved high speed transit system. By applying innovative technologies, e.g. signal prioritization, better stations or shelters, few stops, and easy-to-board vehicles, Bus Rapid Transit could provide faster and more stable service, compared with the regular bus service. Bus Rapid Transit has became a popular public transportation approach in many cities in United States, such as Albany, NY, which initiated BRT plans to improve public transportation service, enhance the community development and protect the environment. This paper reviews the main characteristics of the BRT system and the BRT funding sources. The BRT systems in Boston, Charlotte, Cleveland, Eugene, Hartford, Honolulu, Miami, Ottawa, Pittsburgh and Seattle are evaluated in terms of their facilities, services, project costs and travel time savings. On the basis of literature review and case studies in the ten cities, the BRT plan in Route 5 in Albany, NY is appraised and the potential funding, locally or federally, is evaluated. In addition, this paper also analyzes potential BRT station locations through the Washington/Western Avenue corridor in Albany, NY. Finally, a “network” BRT system is suggested for the Capital District.
Presenter Bios:
Ning Sa is a second year PhD student in informatics at SUNY Albany. Her primary and secondary specializations are knowledge organization and management (KOM) and also information in organizational environments (IOE), correspondingly. Her current interests lie in Information Retrieval (IR) and Human Computer Interface (HCI). She obtained B.S degree in microelectronics from Sichuan University, China and M.S degree from Peking University, China, also in microelectronics. Prior to her study at SUNY Albany, she worked several years in Keithley Instrument, Inc. as an application development engineer.

Xiaojun Yuan is an Assistant Professor in the Department of Information Studies, College of Computing and Information at University at Albany, State University of New York. Her research interests include information-seeking behavior, information retrieval, user interface design and evaluation, information visualization, usability testing, human-computer interaction, and digital libraries.

Abstract:
Social search in Human Computer Interaction and Information Retrieval

The emergence of Internet, mobile search, and social communities (e.g. Facebook, Twitter, and Delicious) is changing people's daily life and bring both challenges and opportunities. Search engines such as Google, social Q&A systems like Yahoo! Answer, and social bookmarking and tagging systems like delicious.com have been widely used by general public and researchers in the field of human computer interaction and information retrieval (HCIR). Web search could be categorized into fact-retrieval search and exploratory search based on (1) if the user is looking for a specific answer for a specific question or (2) if the user is exploring some new topic area. Compared with fact-retrieval search, exploratory search is much more complex. Social cues (the intelligence of majorities) have been used to assist exploratory search, and have become a critical topic in the field of social search. The current social search systems include social answering systems (e.g. social Q&A system) and social feedback systems (e.g. social tagging system). In this study, we did a systematic review on social search in the field of HCIR. Current research topics and factors affecting search efficiency and effectiveness were examined and research limitations and future design implications were discussed.
Abstract:
Tags or no tags? Why XBRL adoption in the US Lagged behind

In order to facilitate data transparency and data sharing, in 2009, SEC announced the final mandate for XBRL (Extensible Business Reporting Language) adoption in US. The previous literature has been very positive toward the attitude of XBRL adoption in the United States. The advantages of filings in XBRL have been mentioned and predicted by optimistic researchers. However, the progress of the adoption is slow and painful in the US. While the early adopters are enjoying the advantages brought by the XBRL, and moving from XBRL FR (Financial Reporting) to XBRL GL (General Ledger), the US has been passed by. This paper is concentrated on finding the factors and features that affected the adoption of XBRL in the US. Based on the findings, the suggestion will be proposed to smooth the adoption.
Presenter Bio:
Sreekumar Nampoothiri is a second year doctoral student in the Information Science program at University at Albany, State University of NY. He is an urban planner with more than 12 years of experience in transportation planning and urban development in India and the US. He is currently working as transportation planner for Capital District Transportation Committee. He has a Masters degree in Regional Planning from University at Albany – State University of NY and Bachelor's Degree in Architecture from University of Kerala, India. His interests are in the fields of information and public policy, GIS, organizational efficiency, social networks, and urban development.

Abstract:
Interaction of Transportation and Land use in the Context of Congestion Management: Themes from the Literature

Congestion management is one of the most important issues transportation planners and policy makers are grappling with today. There is a general agreement that this is due to increased use of individual automobiles and development pattern. However, the planners and policy makers differ on the solutions. The congestion is a result of a number of dynamic factors such as population growth, automobile growth, life style, urban development characteristics, alternate travel options, infrastructure, etc. Literature suggests that land use and transportation interaction is very complex. This paper summarizes the literature on transportation and land use connection and brings out research gap. It also addresses the need for looking the two sectors as one system for policy analysis and decision making.
Presenter Bio:
Jeongyoon Lee is a doctoral student in Public Administration at the University of Albany - State University of New York. She has a MA and a BA in Public Administration from Ewha University, Seoul, Korea. Her research interests include network and collaborative governance, IT-related phenomena in public sector, comparative governance, and quantitative methods.

Abstract:
The information rights-centered value conflicts in the public sector: a case study of Korea

Since the late 1990s, the use of information communication technology (ICT) for improving public management is widely acknowledged as one of the requirements in the public sector. In particular, potential of digitized governance for increasing the effectiveness of government policies and programs and quality of public services is discussed mainly based on the integration of information across organizational boundaries. However, information integration in the public sector is difficult to accomplish in practice because information rights-based claims are made by involved multiple stakeholders (e.g., different public organizations, individual public employees, service applicants and recipients, service contractors, property owners, involved civic communities, and etc.). Such a process of information integration without a doubt entails the information rights-centered conflicts of various social values. Therefore, this study will examine the information rights-centered conflicts of social values that are revealed in the processes of information integration by analyzing two cases in Korea: (1) National Educational Information System (NEIS) of Korea and (2) Korea Integrated Criminal-justice Information System (KICS). In doing so, this study will present the findings from the analysis and conclude with a set of propositions drawn from these two case studies for implementing information integration in the public sector.
Presenters Bio:
Prof Ekblaw has been an Adjunct in the Computer Science Department at the State University at Albany since January 2007. He received his Bachelors of Science at the University of Illinois and his Masters at Rensselaer Polytechnic Institute. He worked for IBM from 1986 to 1991, then began his own software consulting company. He is still involved in the business, doing freelance database applications for small businesses. Prof Ekblaw began his PhD studies in August 2010. His research interest is the sharing of information in educational technology; specifically, a system to allow teams of students in an online course (either fully online or mixed) to share work simultaneously.

Abstract:
Identifying Important Features in a Computerized Course Management System that Support Team-Based Learning
As colleges and universities have expanded their student body by providing online courses, and as even face-to-face courses have “gone green” by providing paperless resources, the use of online Course Management Systems (like Blackboard, for example) has grown. However, online Course Management Systems have proven difficult as more instructors are attempting to implement student work groups and Team-Based Learning. Simply put, online Course Management Systems were designed for individual student effort, and sharing coursework has been limited to instructor-driven group permissions and discussion boards.

This presentation offers the first relief for implementing coursework sharing and student interactivity into online Course Management Systems. As a precursor for creating a template for an Interactive Course Management System, a survey was distributed to students and instructors at various learning institutions, asking for the ease and frequency of use of various existing features of Course Management Systems. Students and instructors were also asked to provide feedback about what features they felt should be changed, and how. This presentation summarizes this research and discusses the findings.
Presenters Bio:
Djoko Sigit Sayogo is a PhD candidate in Rockefeller College of Public Administration and Policy, the University at Albany, SUNY. He is currently involved in the I-Choose research project in the Center for Technology in Government. His research interests include e-government, collaborative network, and data sharing.

Abstract:
Mapping the Sustainable Certification Processes to Support Interoperable Data Architecture: The Case of I-Choose
Interoperable data architecture that reduces information asymmetry across the supply-chain could beneficially support ethical consumer purchasing decision. One of the challenges in developing the architecture is assuring the trustworthiness of the information. Presently, one of the information strategies to generate trustworthiness in ethical consumption is through the proliferation of product labeling and certification. There are numerous labeling and certification initiatives available to support ethical purchasing decision in recent; the ecolabel index (www.ecolabelindex.com) specifies the existence of 430 ecolabels worldwide, each with distinct standard and principles. These diverse labels/certificates and their associated standards and principles are clouding and undermining the trustworthiness of the information available in the label/certificate. Consumers become confused in deciding which labels they could trust. A survey conducted in the Europe indicates that consumers associate the strictness of certification processes with trustworthiness of the label. In relation, to develop interoperable data architecture supporting trustworthy information, assessment on the trustworthiness of labeling and certification is necessary. This study argues that the trustworthiness of the label/certificate partly depends on the robustness of the certification processes. Using the case of I-Choose, a current research project in the Center for Technology in Government to build an interoperable data architecture for sustainable coffee produced and consumed in the NAFTA region; this study provides preliminary examination on the various dimensions of sustainable coffee certification and monitoring processes. This study aims to assess robustness of certification process for sustainable products by mapping and comparing three different certification processes. This study will describe the certification processes and identify the actors and resources by focusing on three major certifications for sustainable coffee, namely: Fair-trade, UTZ and Rainforest Alliance.
Presenter Bio:
Sreejit Chakravarty is currently a Distinguished Engineer with LSI Corporation where his responsibilities include Memory Testing and investigating new test methods to improve test quality. Prior to joining LSI, Dr. Chakravarty was a Principal Engineer at Intel Corporation and an Associate Professor of Computer Science at the State University of New York at Buffalo. He graduated with a B.E. in Electronics and Electrical Engineering from BITS, Pilani, India and M.S. and Ph.D. from The State University of New York at Stony Brook and Albany respectively. He was the first PhD student to graduate in the Computer Science Department here at SUNY Albany in 1986. His academic research was funded by the National Science Foundation and he graduated several Ph.D. students. He continued to pursue a close relationship with academia by mentoring several academic research projects funded by Intel as well as LSI Corporation. He has mentored research projects at the University of Virginia, Princeton University, University of Connecticut, Indian Institute of Science, University of California Santa Barbara, University of Iowa and Stanford University. During this period he supervised the thesis work of several resident Ph.D. students. He has authored one book, published over 125 papers, primarily in the area of VLSI Testing, in IEEE sponsored conferences and journals. He has numerous patents and actively serves on the program committees of several IEEE sponsored conferences and workshops. He is an IEEE Fellow. He is a certified yoga instructor and teaches yoga as a hobby.

Abstract:
Hardware Testing
After fabrication, an integrated chip goes through a variety of tests before it is delivered to the end user. In this talk, I will discuss the purpose of hardware testing, and the kind and purpose of such tests at every phase of the product development. I will also highlight some of the challenges resulting from the evolution of the manufacturing process.
Presenter Bio:
Stephen Lackey is a PhD Candidate at the University of Albany, State University of New York. He comes from a decade of industry experience including the Port Authority of New York and New Jersey and Columbia University. His experience and research focuses on Information System design, transportation, Personal Information Management, distributed, social, and mobile computing.

Abstract:
Improving Goal Completion: Tagging Locations and Tasks
A conceptual framework was devised to unify competing considerations in Personal Information Management, Activity Analysis, and Mobile ICT research. With an emphasis on task and goal completion, these attributes were examined with twin goals of reducing travel and improving goal completion. A simulation model sought to assess the value of managing time, task, and location data while avoiding the pitfalls of developing, deploying, and evaluating a Mobile PIM tool. Using existing survey data, the daily activities of a thousand student commuters were synthesized and simulated over the course of a college semester. Though enhanced information provided comparatively little impact on travel reduction, task completion and goal achievement was found to have improved significantly.
Presenter Bio:
Xiao Liang is a PhD. Student, concentrating in E-Government and Knowledge Organization and Management, in the Informatics Department of SUNY Albany. MA, Information Science, National Library of Science and Technology, Chinese Academy of Sciences, China.

Abstract:
Government Using Microblog as a Platform for Crisis Communication: A Lesson Learned from Chinese Subway Rear-end Accident
Managing communication activities between the government agency and the public is one of the important functions of the government, especially when there is crisis. During the time of crisis, the information communication activity has some special features compared with that in normal times. The public requires immediate information, at the same time; they need emotional support from the organization as well. Failing to provide appropriate communication could harm the organization’s image.
Microblog is a new media which receives much attention in crisis communication area. It is widely used by the public. It is concise, timely, and mobile. However, there is not enough research that has been done to provide the government agency a guidance to make use of microblog during the time of crisis. This paper aims at provides a theoretical framework for the government to use microblog as a communication platform in time of crisis. And then the paper uses Shanghai city subway rear-end accident as a case study to show how a government agency could use this frame work to communicate with the public on microblog.
Presenter Bio:
Catherine Stollar Peters is a Ph.D. candidate in Information Science at the University at Albany with a focus on managing, organizing, and archiving digital records and manuscripts. Her current research projects include investigating email preservation using XML and analyzing how scientists archive their data sets. She worked previously as an Archives and Records Management Specialist for the New York State Archives in the Information Services Unit specializing in information access, organization, and use. She also served on cross-organizational teams dealing with electronic records, appraisal, image creation and management, and access strategies. In her previous position as the first Electronic Records Archivist at the Harry Ransom Center at the University of Texas at Austin she specialized in electronic records preservation.

Abstract:
Email Preservation: Access and Use Considerations
Email is one of the most commonly used forms of electronic communication. 92% of online adults (according to a 2011 Pew Internet and American Life Project Survey) use email, but little thought is given to what happens to that email after it is sent and read. Current academic research into email archiving has focused on creating XML versions of email for preservation, but access to an XML encoded email archive is often only an afterthought. This research intends to analyze archiving strategies for email preservation and a creation of a proof-of-concept access system for email stored as XML. My research considers what previous research has forgotten: how to use preserved email archives and how use could effect which preservation strategies are employed.
Presenter Bio:

Minyoung Ku is a second year PhD student in public administration at Rockefeller College of Public Affairs and Policy, University at Albany, State University of New York. She earned BA and Master degrees in public administration from Sungkyunkwan University, Seoul, South Korea. Her primary research interest is in knowledge/information management, organizational behavior, e-Government, social networks and their impact on policy process, and the methods used to study networks and multilevel research.

Abstract:

The Impact of Information and Communication Technology on Interorganizational Knowledge Sharing Networks: A Multilevel Approach to Interagency Knowledge Sharing

There is no doubt that the key resource which can make the differentiation and thus generate competitive advantages in organizational management is knowledge (e.g., Grant, 1996; Hass & Hansen, 2007). Especially, scholars have emphasized the importance of successful knowledge sharing in which it can increase the functionality and productivity of organizational performance cost-effectively and promote the creation of knowledge resources. In this vein, many scholars have studied knowledge sharing networks at various levels, from the individual level to the organizational level, and suggested that the properties of knowledge such as tacitness, organizational context such as organizational structure, reward system, and information technology infrastructures and applications, and external environment surrounding organizations and its boundary spanners such as proximity and legal constraints have a significant effect on the effectiveness of knowledge sharing networks (e.g., Alavi & Leidner, 2001; Lane & Lubatkin, 1998; Szulanski, 1996).

However, the existing research has a critical limitation. The literature, particularly on interorganizational knowledge networks, assumes that the acts of a node - an individual who serves as a boundary spanner in the networks - are identical to the acts of its organization. That is, as Klein and Kozlowski (2000) argue, the current research have explored interorganizational knowledge sharing from the aggregational perspective on the basis of isomorphism or homogeneity between higher and lower levels of organizations, in particular, between organizations and individuals. In other words, they commonly assume that “an organization’s boundary spanners are homogeneous in their attitudes about and behaviors toward their organization’s interorganizational relationships” (Klein & Kozlowski, 2000). On top of that, they have ignored the need for revealing the mechanism of how facilitating or hindering factors of interorganizational knowledge sharing networks work. Therefore, this study will explore the answers to two research questions from the multilevel perspective, focusing on the impact of information and communication technology on interorganizational knowledge sharing networks: first, how does information and
Weiyi Sun

Abstract:

Detecting Community Influence Echelons in Twitter Network

We study the interactions in a coherent community on Twitter to examine its structure. In particular we examine if there exists a hierarchical influence structure induced by the interactions which reflect a ranked partition of the users in the community where users retweet (forward) only messages from other users belonging to an equal or higher ranked group. We extract such ranked partition of the community and show it to roughly align with independently constructed influence score of users in each echelon. Our research suggests that the relationship and forwarding behavior in online microblogging community is affected by the underlying social influence structure and the understanding of the structure may help us better predict the information diffusion on such online communities.
Presenter Bio:

Weijia Ran is currently a Ph.D. student at the University at Albany – State University of New York studying Informatics, with concentrations in Information and Government, and Decision and Policy Sciences. Her research interests include Elearning in the workplace, knowledge management, information systems in organizations, and sustainability.

Abstract:

Multi-stakeholder perspective on tourism policy making

Tourism policy making is a complex and dynamic process. This process is relevant to various interest groups and involves complex concerns including economic, political, cultural and environmental issues. To cope with the complexity and change, two different strategies for understanding and improving tourism policy making can be identified. One strategy puts the emphasis on policy objectives and roles of different stakeholders. The other chooses to concentrate on micro processes of policy making, trying to understand inter-influence among stakeholders. These two trends are complementary to each other. Policy objectives can provide interventions and exert influence on stakeholders. Improved understanding of inter-influence among stakeholders can in turn help to achieve policy objectives. However, studies associated with each of these two trends are often isolated from each other. The purpose of this study is, therefore, to fill the gap by using a system dynamics approach.
Abstract:
The advent of image editing tools has made it quite common to see manipulated signs, billboards and advertisements in print, media and internet. The presence of numerous tools and plug-ins in image editors like Adobe Photoshop© has made aforementioned manipulation easier even for someone not having a technical training in these fields. Apart from ease of creation, the manipulation is often convincing. When text is on a planar surface and imaged under perspective projection, the text undergoes a specific distortion. When text is manipulated, it is unlikely to precisely satisfy this geometric mapping, which can be detected.

Our program is written using MATLAB, and uses various image forensics techniques to determine if images containing text, such as fake writings on a billboard, are authentic or forged. The program utilizes techniques such as analyzing variations in perspective projections of the text, noise variations, and differences in CFA interpolation. When text is inserted into an image, the precise rules of perspective projection are violated, and these violations are not perceptually obvious. However, these violations can be detected by comparing the text field for deviations in planar homography and fonts; making it possible to determine if the text was forged. These techniques form the main subject of research paper titled DETECTING PHOTO MANIPULATION ON SIGNS AND BILLBOARDS by Valentina Conotter & Hany Farid (2012)
Presenters Bio:
Mohammed A. Gharawi is a Ph.D. candidate in the Information Science program at the University of Albany - State University of New York. His research interests are related to the areas of IT governance, cross-boundary information sharing, comparative e-government, and transnational e-government research. He worked as a faculty staff member for the Institute of Public Administration in Riyadh, Saudi Arabia, after obtaining his Masters degree in Computer Science from the University of South Florida in 2001.

Abstract:
Government-to-government technical and knowledge exchange: Strategies, challenges, and lessons learned
The Hajj Mobile Disease Surveillance System (Hajj-MDSS) is an initiative led by the Kingdom of Saudi Arabia (KSA) Ministry of Health and United States (US) Center for Disease Control and Prevention (CDC) to allow rapid detection of infectious diseases amongst Hajj pilgrims and enhances prevention and control measures through provision of real-time information for decision-making. The initiative was initiated under critical global circumstances when swine flu (Pandemic Influenza A H1N1) declared global pandemic and swept the globe. This paper assesses the adoption of Hajj-MDSS through the lens of a collaborative project between Saudi’s MoH and CDC. The paper traces the history of both organizations and explores the structure and dynamics of their joint effort before, during, and after the implementation of the system. The main goal is to identify the strategies they followed to bridge many types of contextual distances to produce results. The collaboration went through several phases in which both sides invested hundreds of working hours in learning and joint system development. After five months of technical exchange, professional visits, and joint work, the MDSS made its official debut during the 2009 Hajj. The system provided public health officials in KSA access to timely and accurate information. Also, they become able to monitor nine infectious diseases and make timely decisions for any unexpected situations. The paper presents a comprehensive look at the process of technical and knowledge exchange from the perspectives of participants in both countries. Also, it discusses the accomplishments, challenges, and lessons learned that can help inform other transnational efforts to share and exchange technical and expertise resources.
Parallel Session Presentations
Alex Trofimovsky—Assembly Hall
Facilitator—Ethan Sprissler

Presenters Bio:
Alex Trofimovsky is a doctoral student in the department of informatics. He is interested in modeling topics in corporate social responsibility like environmental sustainability. This line of research seeks to create tools for management to handle complex organizational issues.

Abstract:
The Going Green Globally (G3) cornerstone project is a two-week exercise where University at Albany, State University of New York full-time Masters in Business Administration students apply what they have learned during their first year in their different courses and internships toward real client problems. To date, there has not been a review of results with regard to how G3 affects systems thinking in the G3 actors. A business is an open system and also part of a system with other businesses. If it is possible to affect basic aspects of systems thinking despite cognitive limitations and prevalence of systemic problems, then business students will be better equipped to handle the challenges of the changing world. Five teams of 28 masters in business administration students as well as their five clients and five coaches will be asked to participate in semi-structured interviews individually after this year’s G3. Semi-structured interviews will help make sense of a framework of stakeholder impact and sustainable business development. Client worksheets and student deliverables will be reviewed prior to interviews. Students will be asked to describe: takeaways from G3; the process of communicating with their clients on the client problems; the process of getting to the final presentation stage; the role of the framework in their reporting and communication; and finally, how they envision the framework working for their particular client business. Clients are focal organizations, and the coaches observe and facilitate. Findings will show that the participants will be able to discuss diverse stakeholder impacts as well as have confidence in their ability to improve client business bottom line.
Parallel Session Presentations
Manabu Nakashima—CC375
Facilitator—Norman Gervais

Presenter Bio:
Manabu Nakashima a Ph.D. candidate in the Department of Public Administration and Policy, University at Albany – State University of New York. I am working for the Center for Technology in Government as a Graduate Assistant. My research interests include collaborative network, social network analysis, and information management.

Abstract:
How does shared understanding develop in collaborative networks? A preliminary analysis of I-Choose network
Collaborations within and across organizations generate innovative and diversified outcomes unattainable by individuals. Having shared understanding is a critical step to produce outcomes in network settings. However, how shared understanding among network members develops has not been fully studied. While shared understanding develops through interactions among network members, what types of interaction patterns in networks affect the development is not fully studied. To bridge the research gap, this presentation will explore the questions below.

1) How do individual positions in a collaborative network affect the development of shared understanding?
2) How do relational characteristics such as trust and power influence the development of shared understanding?
3) How do communication means used to exchange knowledge and expertise in a collaborative network – face to face communication, phone calls, or electronic means – affect the development of shared understanding?

In this presentation, I will present findings from social network analysis of I-Choose network. The collaborative network is working to create an information system, which provides to consumers information about how, when, and by whom products (e.g., coffee) is produced, so that consumers can exercise their preferences for safe, environmentally sustainable, and economically just products and services.
5:35-5:45  Assembly Hall

Closing Remarks
Dr. Jennifer Goodall
Facilitator— Catherine Dumas
Poster Sessions

Time: 12:05-1:35
Location: Ballroom, Campus Center
Presenter Bios:
Caroline Buinicky received her BA in sociology from the University at Albany in 2011. She is a current graduate student in the Information Studies Department in the School Library Media Track. Caroline's areas of interest are information literacy skills at the middle and high school levels, as well as the use of technology in education.

Judy Koerber is a current graduate student in the Social Policy program at Empire State College and an 8-year veteran employee of the NYS Attorney General's Office, as a Sr. Law Department Investigator. Judy's main policy area of interest is media, particularly cable and network television programming, its impact on consumer and voter behavior and its intricate relationship to policy-making. As a fact-finder in her day-to-day livelihood, Judy is interested in the ability of viewers to distinguish between fact-based reporting and partisan commentary or other forms of propaganda.

Abstract:
News literacy refers to the skill set needed to critically consume news. Similar to, or even a subset of, information literacy, it can be seen as the ability to search for news and to effectively navigate through that process understanding which sources are credible and reliable. Students overwhelmingly turn to the internet for their news. Studies have shown that in response to the use of social media in global news events, such as the Arab Spring, it has become increasingly more likely that students get their news from social media sites. Do they have the news literacy skills needed to navigate the information rich environment to find credible and reliable sources? Do they understand the difference between an opinion blog and a nationally recognized newspaper? This poster presentation will review the current literature concerning definitions of news literacy, and how news literacy is measured. It will also highlight, the current research involving student’s news literacy skills, and discuss how news literacy relates to the school library media specialist.
Presenter Bio:
Catherine Dumas holds a BA in English from the College of Saint Rose. She completed her MS in Information Studies at the College of Computing and Information, SUNY Albany where she is currently a first year PhD student in Informatics. Her research interests include user-centered interactive information retrieval, HCI, information-seeking behavior, usability testing and social network analysis. As a research assistant to Dr. Xiaojun Yuan, SUNY Albany, she is working on the IMLS funded “Speak To Me” project, designing a spoken language interface to information systems to investigate the effectiveness of a spoken language and gesture input interface to digital libraries and similar information systems.

Abstract:
Social network analysis (SNA) has been studied for over two decades in the field of sociology. Recently the technologies have made it easier to collect data to analyze certain aspects of social networks across many environments. Bibliographic networks provide a way of examining co-authorship ties between individuals. Acquaintanceship involves the relationship between individuals on a personal level. The literature covers aspects of co-authorship and acquaintanceship in scientific communities but not in great detail. A recent study by Alberto Pepe (2011) looked at co-authorship and acquaintanceship networks in a multi-disciplinary, multi-institutional and geographically diverse scientific research environment to determine if a relationship existed and to analyze patterns between the two networks. This study will apply Pepe's methodology to construct and compare the networks of co-authorship and acquaintanceship within the College of Computing and Information (CCI) in the State University of New York at Albany. This will involve bibliographic data to construct the co-authorship network and a survey to collect data to form the acquaintanceship network. The focus will be on the faculty and students who have published in the departments of CCI: Computer Science, Informatics, and Information Studies. This study may be extended to include other departments where there is significant collaboration. The poster presentation will consist of highlights from an extensive review of the current literature followed by the methodology that will be implemented for data collection, research questions and expected outcomes.
### Poster

**Norman Gervais**  
**A Proposed GIS based Method for Modeling Aquatic Ecosystem Health**

**Presenter Bio:**
Norman Gervais received a BS in Environmental Science and Biology with a concentration in Terrestrial Ecology from SUNY Brockport and an MA in Geography with a specialization in GIS from SUNY Albany. He is currently a first year Ph.D. Information Science student at SUNY Albany. Within the last few years, he has interned for two separate federal environmental agencies and one state agency, which has given him experience in the application of a GIS. His research interests focus around ecological modeling.

**Abstract:**
Indicator species are considered to be a species that offer a signal of the biological condition of an ecosystem. Studying the presence of an indicator species may be used to detect pollution or degradation of an ecosystem, quickly assessing ecosystem health. Trout are considered to be an indicator species, and therefore could be an indicator of stream condition. A geospatial analysis of land cover characteristics, derived from remotely sensed imagery, within watersheds will be conducted to determine the amount correlation between the land cover traits and trout presence.
Mohammed A. Gharawi

Using Mobile Technology for early disease detection and rapid disaster response: Hajj-MDSS

**Presenter Bio:**
Mohammed A. Gharawi is a Ph.D. candidate in the Information Science program at the University of Albany - State University of New York. His research interests are related to the areas of IT governance, cross-boundary information sharing, comparative e-government, and transnational e-government research. He worked as a faculty staff member for the Institute of Public Administration in Riyadh, Saudi Arabia, after obtaining his Masters degree in Computer Science from the University of South Florida in 2001.

**Abstract:**
Mobile computing has the potential to improve disease surveillance and enhance the identification of risks and disease management solutions. By using Mobile Disease Surveillance Systems (MDSS), disease reporting, data visualization, assessment, and response to outbreaks become more efficient. Also, MDSS assist in improving operational effectiveness and organizational efficiency by providing data feeds to support public health real-time decision-making. Previous several years have witnessed the adoption of mobile technology for disease surveillance in many occasions including, the Sichuan, China earthquake in 2008, the 2009 Hajj in Saudi Arabia, and Haiti earthquake in 2010. Accordingly, understanding the potential benefits of using mobile technologies in public health becomes critical for protecting and maintaining global health security during in states of emergences and times of disasters. This poster provides an overview of MDSS, their main components, technical requirements, and the forms of knowledge needed to implement and operate these systems.
Presenters:
Loni Hagen & Donghee Sinn

Enterprise Systems and Government Organizational Changes: A Socio-materiality Analysis

Presenter Bios:
Loni Hagen is a first year doctoral student in the Information Science program at University at Albany, State University of NY. She has been working as a law enforcement officer for the Korean National Police Agency over ten years. She has a Masters degree in Advertising and Public Relations from Yonsei University in Korea, and a Masters degree in Information Studies from University of Tokyo. Her interests are in the fields of information and public policy, Enterprise System, Privacy rights, and Electronic Medical Record Management systems.

Donghee Sinn is an assistant professor in the Department of Information Studies, College of Computing and Information at the University at Albany (State University of New York). She specializes in Archives and Records Management, and her research interests focus particularly on the archival research in relation to digital archives, archival use/user studies, personal archiving in the web environment, and archival memory and documentary heritage. She is very interested in building bridges among several disciplines including archival studies, digital archiving of cultural artifacts, and East Asian culture and heritages. She has a Ph.D. from the University of Pittsburgh. Previously she worked at the National Archives of Korea.

Abstract:
Information scientists have researched how people utilize information technology within organizations to understand the dynamic relationships among users and technology, and to find out its impact on the organizational change. Among these efforts, the socio-materiality framework provides a good theoretical foundation for how human agency (sociality) interacts with material capabilities of technology in organizations.

This study employs the socio-materiality framework to understand how enterprise systems in governmental organizations are utilized and shaped by human agents in its organizational context. This study does not simply look at the static relationship between human agents and technology, but it addresses multiple dimensions of the relationships among variables of human agents, their work patterns and organizational contexts, government settings and external expectations, introduction and distribution of technology, intents of developing new IT systems, etc. Based on the socio-materiality framework, this study investigates the social enactment of IT in an organization. Specifically, it examines Korean public officials' interaction with an Enterprise System, the On-Nara System, at the Korean National Police Agency. This study hopes to address a little-researched area of fluid space between human agents and technology.
Poster: Human Information Behavior in Mobile Environment

Presenter Bios:
Dima Kassab is a PhD student in Informatics at the University at Albany with a primary specialization in Knowledge Organization and Management and a secondary in Information Technology and Learning. She is currently teaching the course Introduction to Data and Databases at the University at Albany. She has a Master’s degree in Information Studies from University at Albany and a Bachelor’s degree in Computer Science from the University of Aleppo, Syria. Ms. Kassab is also a Fulbright fellow. Part of her research interests are the information needs and searching behaviors of mobile users and the potential of using mobile technology in education.

Xiaojun Yuan is an Assistant Professor in the Department of Information Studies, College of Computing and Information at University at Albany, State University of New York. Her research interests include information-seeking behavior, information retrieval, user interface design and evaluation, information visualization, usability testing, human-computer interaction, and digital libraries.

Abstract:
In this research we investigate why and how users employ mobile phones or other small screen devices to access and acquire information in order to better understand human mobile information behavior. 12 interviews were conducted on a one-to-one basis with graduate students regarding their information needs and searching habits through mobile devices. Particularly, their mobile intent, and their search mobile behavior. The interview data were transcribed, and then analyzed. Two project team members coded the data to assure the inter-coder reliability. The results of the analysis are presented. The results are categorized into five aspects, including device related, motivations of using the mobile Internet, search behaviors, presentations of search results, and security concerns. The results indicated that searching is playing a critical role in users’ daily mobile use behavior. In addition, shopping and social networking are also top activities of mobile users. It seems that mobile information search is becoming an important part in people’s everyday life. We hope the current research can give insights and frame directions for future research in mobile user behavior, as well as to reveal any new trends in this area.
Ping Li is a graduate student pursuing MS in Information Studies at SUNY Albany. She got her BA in Library Science from Nankai University, Tianjin, China in 2011. Her research experience includes: served as a group leader in the project of “The design of a library science education program for policy consultation”; participated in a Community Informatics program to investigate what roles Starbucks Coffee plays as a public computing site in China; for her undergraduate thesis, she did field study on urban laid-off workers’ information behaviors to explore solutions of community information inequality. HCI, user interface design and evaluation are her future research interests.

Abstract:
Digital equality has been researched for decades in the field of information science. Nowadays, digital information is becoming an important and valuable resource for both personal and organizational use. We believe everyone has equal rights to access to digital information. However it is not always the case. For example, some poor people do not have an opportunity to access digital information. To achieve digital equality, more attention should be drawn on the information behaviors of the digital poverty community. Therefore, it is critical to research how to protect the digital information rights of such a community. Although there has been significant research on information behaviors and ways to achieve digital equality, to our knowledge there has been no report on laid-off workers’ information behaviors and status. This research is important for government policy-makers to build an information-equality community.

In this project, a field study was done on urban laid-off workers’ information behaviors from the following aspects: information needs and expression, information seeking, information interaction, information selection and usage. We discovered the factors influencing their information behaviors, and discussed possible solutions to achieve digital equality for urban laid-off workers.
**Poster**

**Darshan Shinde**  
Analysis of factors causing ‘Collapse’ of Self Organizing groups.

**Presenter Bio:**
Darshan Shinde is currently a M.S. student studying Computer Science at the University at Albany. Starting his Undergraduate studies in Instrumentation Engineering at University of Mumbai, India, he transferred to US completing his BA in Computer Sciences with a minor in Physics in May 2010. He has worked as a Graduate Assistant at NYS Center for Information Forensics & Research and as a Webmaster for Department of Chemistry. His research interests include Factors involving Failure and Collapse of Self-Organized Systems, Android platform Development & Web Development.

**Abstract:**
Societies are considered self organized systems where local interaction amongst individuals leads to sophisticated societal behavior. I have examined collapse phenomena which show how communities/populations/groups have failed to survive due to variety of internal and external factors. We can learn from these natural phenomena of societal collapse and examine how critical self organized systems fail. There are multiple domains where these phenomena can be applied, like the problems involving complex systems. The obtained results can be used to study how such systems can fail. From these learning’s, we can abstract the physical phenomena of the collapse domain and then apply these different failure models to problems of Self Organized Transportation. We can thus, define specific measures to examine the extent of failure in these systems. A simulation is being developed to study the phenomena. A few interesting observations are as follows:

General four point reasons for the collapse are: A group fails to anticipate problem before it arrives, When problem arrives, the group fails to perceive it. After the group finally perceives the problem, it fails to solve it. The group may even fail in making an attempt to solve the problem.

### Poster Title

Ethan Sprissler & Ira Goldstein

### Presenter Bio:

Ethan Sprissler is a first year doctoral student in the Information Science program at SUNY Albany. He holds a Master's in the Philosophy of Religion from Boston University, a Master's in Information Science from SUNY Albany, and a BA in Philosophy & Religion from James Madison University. Recent experience includes computer assisted reporting at the Times Union newspaper. Some of his research interests include text retrieval, social network analysis, and NLP.

Ira Goldstein received his Ph.D. in Informatics from the University at Albany in 2011. His research interests include natural language processing and categorization of knowledge, and is currently focusing on processing the narratives from social networking feeds. Recent publications include Does Negation Really Matter? In the Proceedings of the Workshop on Negation and Speculation in Natural Language Processing, and Role of Preferred Terminology in the Classification of Medical Reports at the 24th International Symposium on Computer and Information Sciences. He is a long time employee at the Capital Region BOCES Regional Information Center and has always received great satisfaction knowing that his work has helped in the education of primary and secondary students.

### Abstract:

Twitter, a developing social medium, displays linguistic characteristics that are distinct from traditional, well-formed, written communication. This project is an examination of Twitter communications and the ability to apply machine learning to correctly interpret non-traditional English. For the purposes of this study, non-traditional English includes, but is not limited to: creative spelling, initialism, acronyms, 'leet-speak', emoticons, emphatic punctuation, and the use of capitalization as emphasis. Proof of concept programming for creative spelling is currently underway.
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We would like to thank everyone who helped put this conference together: 
David Andersen, Deborah Andersen, Neil Murray, Jennifer Goodall, Nan Carroll, the second-year PhD students in Informatics and the wonderful presenters. Thank you.

The first-year PhD students in Informatics
The annual Informatics Department NTCIR (New Trends in Informatics Research) and the Computer Science Department NTCS (New Trends in Computer Science) have decided to join our conferences together this year, hence the new name NTCIR.

NTIR was conceived seven years ago as a forum for doctoral students and faculty from the University at Albany to present and discuss their research through talks and poster displays. The topics of presentations represent a variety of current streams of research relevant to Informatics. Conference presentations highlight the diversity and the interdisciplinary nature of information science research.