CONFERECE PROGRAM

6th Annual Informatics Spring Research Conference

April 1, 2011
8:00—4:30
Welcome to NTIR 2011

Avinash Bachwani
Robert Ekblaw
Sreekumar Nampoothiri
Ning Sa
Alexander Trofimovsky
Sandra Zelka
Tianci (Daniel) Zhang

Conference Planning Team

Yanfei Chen
Dr. Jagdish Gangolly
CCI Assistant Dean
Dr. Jennifer Goodall
CCI Office Secretary
Heide Horan
Lenore Horowitz
Weijia Ran
Weiyi Sun

Conference Supporting Team

Department of Informatics
College of Computing and Information
University at Albany
### Schedule at a Glance

**April 1, 2011**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00-8:45</td>
<td>Registration</td>
<td></td>
</tr>
<tr>
<td>8:45-9:00</td>
<td>Welcome Address</td>
<td>Assembly Hall</td>
</tr>
<tr>
<td></td>
<td>President George M. Philip</td>
<td></td>
</tr>
<tr>
<td>9:00-9:30</td>
<td>Opening Keynote Address</td>
<td>Assembly Hall</td>
</tr>
<tr>
<td></td>
<td>Dr. Alain Diebold</td>
<td></td>
</tr>
<tr>
<td>9:35-10:05</td>
<td>Parallel Session Presentations</td>
<td>Assembly Hall</td>
</tr>
<tr>
<td></td>
<td>Taewoo Nam</td>
<td>Terrace Lounge</td>
</tr>
<tr>
<td></td>
<td>Kuang-Yuan (Ray) Huang</td>
<td></td>
</tr>
<tr>
<td>10:10-10:40</td>
<td>Parallel Session Presentations</td>
<td>Assembly Hall</td>
</tr>
<tr>
<td></td>
<td>Jonathan Muckell, Fan Ping, Vikram Patil</td>
<td>Terrace Lounge</td>
</tr>
<tr>
<td></td>
<td>Shiho Sawai &amp; Djoko Sayogo</td>
<td></td>
</tr>
<tr>
<td>10:40-11:00</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>11:00-11:30</td>
<td>Parallel Session Presentations</td>
<td>Assembly Hall</td>
</tr>
<tr>
<td></td>
<td>Sreekumar Nampoothiri</td>
<td>Terrace Lounge</td>
</tr>
<tr>
<td>11:35-12:05</td>
<td>Parallel Session Presentations</td>
<td>Assembly Hall</td>
</tr>
<tr>
<td></td>
<td>Stephen Lackey</td>
<td>Terrace Lounge</td>
</tr>
<tr>
<td>12:10-12:40</td>
<td>Parallel Session Presentations</td>
<td>Assembly Hall</td>
</tr>
<tr>
<td></td>
<td>Lenore Horowitz</td>
<td>Terrace Lounge</td>
</tr>
<tr>
<td>12:40-1:40</td>
<td>Lunch and Poster Sessions</td>
<td>Fireside Lounge</td>
</tr>
<tr>
<td>1:40-2:10</td>
<td>Afternoon Keynote Address</td>
<td>Assembly Hall</td>
</tr>
<tr>
<td></td>
<td>Dr Devendra Potnis</td>
<td></td>
</tr>
<tr>
<td>2:15-2:45</td>
<td>Parallel Session Presentations</td>
<td>Assembly Hall</td>
</tr>
<tr>
<td></td>
<td>Junesoo Lee</td>
<td>Terrace Lounge</td>
</tr>
<tr>
<td></td>
<td>Mohammed Gharawi</td>
<td></td>
</tr>
<tr>
<td>2:45-3:05</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>3:05-3:35</td>
<td>Parallel Session Presentations</td>
<td>Assembly Hall</td>
</tr>
<tr>
<td></td>
<td>Jeongyoon Lee</td>
<td>Terrace Lounge</td>
</tr>
<tr>
<td></td>
<td>Weiyi Sun</td>
<td></td>
</tr>
<tr>
<td>3:40-4:10</td>
<td>Closing Session</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sherly Abraham</td>
<td></td>
</tr>
<tr>
<td>4:10-4:25</td>
<td>Closing Remarks</td>
<td>Assembly Hall</td>
</tr>
<tr>
<td></td>
<td>Dean Peter Bloniarz</td>
<td></td>
</tr>
</tbody>
</table>
Conference Schedule
April 1, 2011

8:45-9:00
Assembly Hall
Welcome Address
President George M. Philip
Introduced by Sandra Zelka

9:00-9:30
Assembly Hall
Opening Keynote Address
Dr. Alain Diebold
Introduced by Sandra Zelka

Presenter Bio:
Dr. Alain Diebold is an Empire Innovation Professor of Nanoscale Science at the College of Nanoscale Science and Engineering (CNSE) of the University at Albany – State University of New York, as well as the Executive Director of CNSE’s Center for Nanoscale Metrology. He is also Executive Director of the New York Center for National Competitiveness in Nanoscale Characterization. His research focuses on the impact of nanoscale dimensions on the physical properties of materials; he also continues to work in the area of nanoelectronics metrology. He is a member of the International Metrology Technical Working Group, founder and co-chair of the U.S. Metrology Technical Working Group for the 2010 International Technology Roadmap for Semiconductors, and chair of the Manufacturing Science and Technology Group of the American Vacuum Society.

Abstract:
The Frontiers of Nanoscale Science and Engineering
Nanoscale science and technology play an increasingly important role in our everyday lives. Everything from electronics to medicine use materials and devices with nanoscale features. Materials have very different properties at near atomic dimensions. Nanoscale science explores these nanoscale properties and nanoscale engineering utilizes these properties in new devices. Perhaps the most pervasive and well-known example is the nanoscale electronics found in personal electronics such as your cell phone or personal digital assistant (PDA) like Blackberry. Although it may not be as well known, nanoscale materials are being used to advance energy related materials such as photovoltaics for solar cells and energy storage materials and devices. Nanoscale materials also impact the field of biology. Nanoscale materials are a topic of research for everything from new medicines to diagnostics to new sensing devices. This talk will describe the possibilities that nanoscale science and engineering bring to nanoelectronics, energy materials, and biology. This discussion will also cover the topic of partnerships between academia and industry in the area of nanotechnology.
Presenter Bio:
Taewoo Nam is a Ph.D. candidate in the Department of Public Administration and Policy, University at Albany – State University of NY. He is working for the Center for Technology in Government as a Graduate Assistant. His research interests include e-government, e-democracy, and information management.

Abstract:
The Conceptual Framework of Smart City
Today more than half of the world’s population is living in cities, and demographers predict the rapidest increase of the urban population over the globe by 2020. Under this largest wave of urban growth in world history, there is a growing demand for a model for more livable cities. Smart city has been recently emerged as a model to mitigate current urban problems and make cities better for people’s living. The concept *smart city* has recently emerged to envision the use of smart technologies to build and integrate the critical infrastructures and services of a city. Despite practitioners’ enthusiastic attention to smart city, academic or analytic approaches have not tackled the practical concept so far. Considering that, this study takes a close look at the conceptual identity of smart city. Exploring the existing discussions and practices of smart city, this study identifies emerging concepts of smart city, its fundamental components, and strategic directions, and then presents a preliminary mapping among concepts, components, and strategic directions.

Presenter Bio:
Kuang-Yuan Huang is a Ph.D. candidate and lecturer in Informatics at the University of Albany - State University of New York. His primary specialization is Knowledge, Organization and Management. He has a B.S. in Computer Science from National Chiao-Tung University, Hsinchu, Taiwan and an M.S. in Computer Science from National Dong-Hwa University, Hualien, Taiwan. His research interests include Natural Language Processing, technology adoption, open source software, Web 2.0, organizational learning, and virtual communities.

Abstract:
Toward a Framework of Web 2.0 Driven Organizational Learning
During the past few years, Web 2.0 applications have changed the Web from a search tool to a platform for collaboration. Research has also started to show that Web 2.0 applications promote organizational knowledge sharing and creation. There is not, however, a comprehensive conceptual framework that explains how the organizational use of Web 2.0 leads to organizational learning. In this paper, we develop such a framework by drawing on social capital theory and the SECI knowledge creation model to show how the social capital emerging from the use of Web 2.0 applications drives organizational learning.
Presenters Bios:

Jonathan Muckell received his M.S. in Computer Systems & Engineering from Rensselaer Polytechnic Institute in 2008, and his B.S. in Computer Science and Mathematics from St. Lawrence University in 2006. He is currently a Ph.D. student at the University at Albany—State University of New York studying Informatics, with a concentration in geographic information systems. He has developed numerous spatial technologies and published several papers as a member of the Defense Advanced Research Project Agency (DARPA) and National Geospatial Intelligence Agency (NGA) funded by the GeoStar Project.

Fan Ping received his B.S. in Computer Science from Fudan University in 2006. He is currently a Ph.D. student at the University at Albany – State University of New York studying Computer Science with a concentration in distributed systems.

Vikram Patil received his B.E. in Electronics Engineering from University of Mumbai, India in 2009. He is currently a M.S. student studying Computer Science at the University at Albany - State University of New York.

Abstract:

Algorithms for Compressing GPS Trajectory Data: An Empirical Evaluation

The massive volumes of trajectory data generated by inexpensive GPS devices have led to difficulties in processing, querying, transmitting and storing such data. To overcome these difficulties, a number of algorithms for compressing trajectory data have been proposed. These algorithms try to reduce the size of trajectory data, while preserving the quality of the information. We present results from a comprehensive empirical evaluation of many compression algorithms including Douglas-Peucker Algorithm, Bellman’s Algorithm, STTrace Algorithm and Opening Window Algorithms. Our empirical study uses different types of real-world data such as pedestrian, vehicle and multimodal trajectories. The algorithms are compared using several criteria including how well they preserve the spatio-temporal information across numerous real-world datasets, execution times and various error metrics. Such comparisons are useful in identifying the most effective algorithms for various situations. We also provide recommendations for a hybrid algorithm which can leverage the strengths of various algorithms while mitigating their drawbacks.
Shiho Sawai is a PhD student in Tokyo University of Foreign Studies, Japan, and currently attached to the Sociology Department of the University at Albany—State University of New York, as an international exchange student. Her research focus is on the media and cultural usage of migrant women. She has conducted her field research in Hong Kong on Indonesian migrant domestic workers and is presently developing it into her PhD dissertation project.

Djoko Sigit Sayogo is a PhD student in Rockefeller College of Public Administration and Policy, the University at Albany—State University of New York. He is a Fulbright Presidential Scholarship grantee for 2008 to 2011 periods. Currently he is working for the Center for Technology in Government in the University at Albany. His research interests include e-government, e-democracy, and Internet financial reporting.

Abstract:
Exploring the Use of Web 2.0 and Writing Activism of Indonesian Female Domestic Migrant Workers in Hong Kong

Global restructuring of reproductive domains has created the present flow of the Third world women’s reproductive labor migration as domestic workers, nannies, and caretakers to the First World household (Ito & Adachi, 2008). This migration pattern of an unprecedented number of female domestic labor migrates from Southeast Asia to East Asia, raising number of issues related to their underprivileged status in professional, legal, economic and gendered terms. This study will explore the use of Web 2.0 technologies by Indonesian Female Muslim domestic workers in Hong Kong. Additionally this study will elucidate the process of social identity negotiation by marginalized migrant Muslim domestic workers through the use of literary writing activism and web 2.0 usages.

This research aims to expand the previous research of Sawai (2008) by exploring and contrasting two media of activism, namely: literary writings and social networking. Various researches have attempted to dissect the way underprivileged constituencies involved in defending their rights develop through group identities (Taylor & Whittier, 1999). However, less research has attempted to explore and contrast the identity development and negotiation process through the lens of narrative in movement and information technology to mediate personal network. Given the textual nature of the Web that rely their process primarily through the medium of language, Web 2.0 is ideally suited to evaluate the process of identity construction and negotiation from the network perspectives.
Abstract:
Is There Any Hope for Public Transit: An Inquiry into the Travel Dynamics and Policy Options

There is an inverse relation between auto travel and transit ridership. As the auto travel increases, transit becomes less favorable and the ridership decreases. From environmental as well as road congestion perspectives, transit is better than auto travel. It has been noted that as the fuel price increased, many auto travelers shifted to transit or carpool options. The ridership on the Capital District Transportation Authority (CDTA) buses saw a considerable amount of increase in the same time. This was at a time when CDTA was reducing its routes/schedules for cost saving purposes. It is important to explore the reasons behind these fluctuations as to see the dynamic nature of this travel behavior and understand the factors that will influence this shift of travel mode.

Sterman presents a system dynamics map called ‘mass transit death spiral’ in Business Dynamics (Sterman, 2000: 178-189). This map describes the dynamic nature of this auto-transit relationship. In this research, I develop a model by expanding the Sterman map with more parameters within two sectors – auto and transit sectors; identify their behavior over time; identify the information flows, and test various policy options. Multiple Attribute Utility (MAU) model is used to bring the two disparate sectors are together for comparison and moving users from one mode to another. The results are counter-intuitive. The ‘death spiral’ can be avoided in certain circumstances. The analysis shows that system dynamics model can address such complex and changing scenarios and can lead to counter-intuitive results. Many of the commonly discussed policy options are proved unproductive while some often less preferred options came to the fore as successful options to make public transit attractive and keep the road congestion manageable. Municipalities, transportation agencies, and state/federal governments can learn from this exercise and alter their policies to induce this behavior in order to achieve sustainable transportation options for the future.
Presenters 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 E-learning in the workplace, knowledge management, information systems in organizations, and sustainability.

Abstract:
Environmental Protection through Producing, Sharing, and Disseminating Information

By examination of selected websites of government agencies and environmental non-governmental organizations (NGOs), this study has investigated current strategies and emphases of the government and environmental NGOs for using information to protect environment in China, as well as their application of the principles of information usefulness and stewardship. Based on data analysis results, their advantages and weaknesses in terms of producing, sharing, and disseminating information for environmental protection are derived and discussed. The findings of this study provides implications for public managers to better exploit the government’s advantages for environmental protection and to better collaborate with NGOs to fill up the government’s deficiencies. The findings have shown that organizations at the national level and government agencies are more likely to rely on the strategy of collecting and analyzing supervision data for environmental protection. And they are more likely to produce supervision data with higher information quality. Organizations at the local level and organizations with a non-government attribute are more likely involved in information-producing activities such as education, training, raising awareness, and building citizens’ capacities by promoting their participations. Although environmental NGOs in general are still at an underdeveloped state due to the shortage of funding and human capital in China, environmental NGOs at the national level have made much better use of the principle of information usefulness than government agencies. Despite underlying interactions and resource flows between environmental NGOs and government agencies, it seems that these two entities still remain separate on the surface.
Presenter Bio:
Stephen Lackey is a Ph.D. candidate focusing on location services, transportation, and Personal Information Management. He returned to the Albany area after nearly a decade of Database and Web Application development at Columbia University and the Port Authority of NY & NJ.

Abstract:
Integrating Place and Time with Tasks: Supporting the Student Commuter
The information and methods used to structure our daily lives has been recognized as fragmented and application specific, forming “information islands”. Though the role of traveler information in transportation has been widely recognized in Activity Analysis research, its application to the needs of specific populations has remained limited. Where Activity Analysis focuses on the interplay of transportation mode and the constraints of location on the fulfillment of tasks, Personal Information Management examines the ability of individuals to plan, monitor, and fulfill tasks and appointments. Mobile Computing tools as well have been deemed of value in both improving the range of our activities to avoid unnecessary travel, and in supporting our personal information needs.

A unified Personal Information data structure encodes locations by roles, tasks by category, and scheduled appointments by location. A series of data operators were developed to aid in retrieving and matching scheduled activities and tasks to potential locations. The effectiveness of the data structure and operators were evaluated via a simulation to assess improvements from information in a hypothetical population over time. The results indicated that improvements in location information alone resulted in only minimal improvements in improving task efficiency, but improvements in either time management or task management improved significantly when properly assigning roles to locations and categorizing tasks. The findings led to a recommendation that future implementation allow a more rich customization of "tagging" for task and calendar items to aid the user in accomplishing more at a given location.
Presenter Bio:
Djoko Sigit Sayogo is a PhD student in Rockefeller College of Public Administration and Policy, the University at Albany—State University of New York. He is a Fulbright Presidential Scholarship grantee for 2008 to 2011 periods. Currently he is working for the Center for Technology in Government in the University at Albany. His research interests include e-government, e-democracy, and Internet financial reporting.

Abstract:
Understanding the Critical Challenges for Preservation and Sharing of Science Data: A Preliminary Study of DataONE

The development of information and communication technologies (ICTs) provides new opportunity for integrating and sharing data across multiple domains and presents additional pressure to engage in broader efforts to share research data. DataONE is a new collaborative initiative to creatively use ICTs to ensure preservation and access to multi-scale, multi-discipline, and multi-national science data; as such DataONE will transcend domain boundaries (DataONE, 2010). The boundaries that DataONE aim to traverse not only relate to the field domains (e.g., biology and environmental) but also those across organizational boundaries and across different nations in the future. DataONE aims to connect multiple data repositories, apprehended by various organizations disregard to size and locations (DataONE, 2010).

This paper will analyze a survey of 1329 natural science researchers to identify the critical challenges facing multi-scale, multi-discipline, and multi-national scientific data sharing. This survey was conducted as part of the usability and assessment process of the DataONE initiative. Two techniques are used to analyze the survey results; first, descriptive statistics are used to depict the intensity of critical challenges identified, second, multivariate logistic regression is used to identify the determinants affecting the propensity of researchers to share their datasets.
Presenter Bio:
Lenore Horowitz is a Ph.D. candidate in Informatics at the University of Albany – State University of New York. She has an M.A. in Software Engineering from UMass Lowell and a B.A. in Mathematics & Statistics from Buffalo University – State University of New York. Her research interests include Information Systems education, higher education online/distance/blended learning, higher education faculty volunteer intention, and open educational resources.

Abstract:
Exploring the Impact of Program Structure on Student and Faculty Scholarly Communities in Interdisciplinary Ph.D. Programs
The Information System doctoral program at the University at Albany 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 2006, the University at Albany redefined the program’s structure in hopes of addressing the challenges facing the department. Three innovations were incorporated into the revised program which includes the formation of student cohorts, the inclusion of a four-semester research seminar, and the incorporation of an annual, on-campus research conference. Drawing on data collected with both students and faculty present during the transition to the new program structure, a mixed-method research strategy will explore the experiences of program faculty and doctoral students’ sense of community and connectedness. This research is expected to enrich the fields of Information Science and Higher Education by advancing the understanding of the necessary elements of an Information Systems Ph.D. program.

Presenter Bio:
Xiaoai Ren is a Ph.D. candidate in Informatics at the University of Albany – State University of New York. His research interests include library administration and intellectual property rights.

Abstract:
How Public Library Systems in New York State Make Service Decisions
Public library systems in New York State have been in existence since the 1950s. They have been providing services to individual public libraries by facilitating resource sharing among them and enhancing their capacity to provide quality services to users. This study will help to fill the gap of public knowledge about public library systems by looking at services provided by public library systems and the decision-making process in public library systems when they make service decisions. Three New York public library systems were selected for multiple case studies.
President Bio:
Dr. Devendra Potnis is an Assistant Professor at the School of Information Sciences, College of Communication and Information, University of Tennessee at Knoxville. He is a 2010 Ph.D. graduate of the College of Computing and Information at the University of Albany - State University of New York.

Abstract:
The Cell Phones for Development Project
Development is a multidimensional phenomenon assessed on the basis of people's knowledge, political freedom, empowerment, productivity, cultural liberty, security, sustainability, and civic rights among others. Studies find information and communication technology (ICT) to be a key factor leading to development. This project borrows from information sciences, information systems, management, and development literature for examining the role of cell phones in development of women earning less than a dollar per day in India. After a pilot, 25 participants each from rural and urban slums who do not own a cell phone, have been selected and given new cell phones, to record their daily usage of cell phones on a pre-populated form. Usage experience of 300 existing women cell phone users each from rural and urban slums will be collected through surveys. Cell phone contribution toward development of 50 new and 600 existing cell phone users will be compared and findings will inform extant research on ICT enabled development.

Presenter Bio:
Junesoo Lee is a second-year Ph.D. candidate in Public Administration, focusing on Decision and Policy Analysis. His research interests include systems dynamics, policy paradox, failure management, and success management.

Abstract:
Managing the Information on “Policy Paradox” Using “Failure” and “Success” Management
It is highly desirable for various management tools such as Knowledge Management (KM), Risk Management (RM), and Crisis Management (CM) to be supported by an information system which can help us deal with two kinds of paradoxical situations around any individual or policy problems. This study suggests that the information on two policy paradoxes can be systematically managed by new approaches named “Failure Management (FM)” and “Success Management (SM)”.

12:40-1:40
Fireside Lounge
Lunch and Poster Sessions

1:40-2:10
Assembly Hall
Afternoon Keynote Address
Dr. Devendra Potnis
Facilitator—Sandy Zelka

2:15-2:45
Assembly Hall
Junesoo Lee
Facilitator—Alexander Trofimovsky
Presenter Bio:
Mohammed A. Gharawi is a Ph.D. candidate in the Information Science program and a graduate assistant at the Center for Technology in Government 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 obtained his Masters degree in Computer Science from the University of South Florida in 2001.

Abstract:
An Exploratory Study of the Factors Influencing Transnational Public Sector Knowledge Networks
Transnational Public Sector Knowledge Networks (TPSKNs) continue to emerge as governments around the world realize the benefits that can be gained through sharing of knowledge, information, and practices across cultural and national boundaries. However, little is known about these networks when they cross national and cultural boundaries. This research work intends to start filling the identified gaps and to explore the area of TPSKNs through two main phases. In phase I, a case study of the collaboration between the United States (US) and Saudi Arabia (SA) in the domain of Public Health will be conducted. The second phase comprises a comparative study to identify similarities and differences among the factors identified in phase I and those influencing the collaboration between US and China in the area of Air Quality.
Jeongyoon Lee
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:
What Do We Know About Virtual Interactions via Smartphones?
The recent boom of the use of smartphones has stimulated the expansion of the concept of cyber behavior, allowing people to experience perpetual virtual contacts in their daily lives. In this sense, this paper addresses the issue of mobile cyber behavior by identifying key dimensions of virtual interactions as a new way of understanding behavior about smartphone use. While the majority of prior relevant studies have concerned mobile technology from a technical perspective, this article takes a sociotechnical perspective focusing on aspects of human behavior.

Weiyi Sun
Presenter Bio:
Weiyi Sun is an Informatics Ph.D. candidate at the University of Albany - State University of New York, with research interests in social computing, knowledge discovery and management. She has worked as web application product manager in an international software company. She completed her undergraduate studies in Fudan University with a major in Mathematics and a second major in Computer Science.

Abstract:
Detecting Community Influence Echelons in the 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.
Presenter Bio:

Sherly Abraham is a Ph.D. student at the College of Computing & Information, University of Albany - State University of New York. She has a Master's degree in Telecommunications from SUNY Institute of Technology, Utica, NY, and a Bachelor's degree in Computer Engineering from Assumption University, Bangkok, Thailand. Her research interests include information security and corporate governance.

Abstract:

Information System Behavior: Factors and Research Directions

Effective information security programs in organizations rests on the balanced interplay of technology, people, and procedures. In recent years, as the importance of end user security behavior is recognized, information system researchers and practitioners have attempted to understand this phenomenon from various theoretical viewpoints. This paper conducts an extensive literature review on information security behavior in the context of the academic disciplines, and factors affecting security behavior of users in organizational environments.
Poster Sessions
### Poster Sessions

**12:25-01:25**

**Milne Corridor**

<table>
<thead>
<tr>
<th>Proposer</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avinash Bachwani, Ephraim Back, &amp; David Pratt</td>
<td>Proposing a Conceptual Framework to Integrate Social Media Networking and Electronic Personal Health Records to Manage Diabetes in an Underserved Population</td>
</tr>
</tbody>
</table>

**Presenter Bio:**

**Avinash Bachwani** is a first year Ph.D. student in the Informatics program at the University of Albany – State University of New York. His research interests are in Health Information Technology and Artificial Intelligence in Medicine. He is a full-time physician at the Department of Emergency Medicine at Ellis Hospital in Schenectady.

**Abstract:**

We propose a conceptual framework integrating social media networking with electronic personal health records (PHR) to increase information seeking behavior and ownership of a chronic disease thereby potentially reducing the disease burden, improving outcomes and driving down health costs. Our study will use the underserved Guyanese community in Schenectady, NY, which has an unusually high prevalence of Type II Diabetes associated with earlier end-organ damage. We hope to test and validate our hypothesis above and further demonstrate insulin resistance as the underlying mechanism of their disease burden.

| Catherine Dumas & Xiaojun Yuan | PubMed: What Else Can We Do? |

**Presenter Bio:**

**Catherine Dumas** is currently a Masters student in Information Studies, and a research assistant for Dr. Xiaojun Yuan. She is also the current Publicity and Membership Chair of the local student chapter of ASIS&T. She begins doctoral studies in the Informatics department at the University at Albany—State University of New York in Fall 2011.

**Abstract:**

PubMed (www.pubmed.gov) is a free resource developed and maintained by the National Center for Biotechnology Information (NCBI) at the National Library of Medicine (NLM). This medical information retrieval (IR) system is used in many studies to improve biomedical information retrieval. PubMed usage profiles are considered when educating users, building interfaces, and designing biomedical IR systems. I am currently reviewing the literature on PubMed user behavior.
<table>
<thead>
<tr>
<th><strong>Presenter Bio:</strong></th>
<th><strong>Abstract:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Ekblaw has been an Adjunct Professor in the Computer Science Department at the University of Albany – State University of NY since January 2007. He received his Bachelor’s of Science at the University of Illinois and his Masters at Rensselear Polytechnic Institute. Prof Ekblaw began his Ph.D. studies in August 2010. His research interest is the sharing of information in educational technology.</td>
<td>Most online courses evolved from correspondence courses. Thus they are designed for individual work. However, with the advent of team-based learning, institutions are looking for ways to allow teams of students to work on assignment projects simultaneously. My poster shows a proposed Course Management System that allows that, while simultaneously allows students to communicate with each other, the online course material, and the instructor.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Presenter Bio:</strong></th>
<th><strong>Abstract:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>As Data Analyst for the WSWHE BOCES, Elizabeth assists the region’s 31 component school districts with their educational research projects, specializing in program and grant evaluation utilizing advanced statistical modeling techniques. Elizabeth earned her M.S. in Human Development from the University of Rochester, and is currently pursuing a Ph.D. in Educational Psychology &amp; Methodology from the University of Albany – State University of New York.</td>
<td>To bridge the gap between secondary and postsecondary Career and Technical Education data, P-12 Data Analysts and SUNY Institutional Researchers from the Greater Capital Region Career Pathways Consortium have collaborated to develop a longitudinal data system. This process, its challenges, and the technology solutions used to move forward will be addressed.</td>
</tr>
</tbody>
</table>
Carol Anne Germain  Maintaining Persistent Scholarship: An Analysis of the Accessibility Rate of Cited URLs in Doctoral

Presenter Bio:
Carol Anne Germain is the Information Literacy Librarian at the University at Albany – State University of New York. In this position, she develops web-based instruction and provides reference services at the University Library. She is currently working on her dissertation entitled, “Maintaining persistent scholarship: Case of University at Albany dissertations.”

Abstract:
Citations provide an erudite mechanism to support an author’s ideas, theories, and research; acknowledge other scholarly contributions; and integrate academic works from the intellectual community. Well-constructed references include the appropriate information necessary for an end user to retrieve a supporting document. With the introduction of the World Wide Web, the use of digitally-based citations has increased. Concerns and discussions about present and future access to these materials have surfaced in research and academic environments, including colleges and universities.

Of particular interest are the citation practices of doctoral students, the neophyte scholars who are developing their research strategies. This study reviewed citation patterns and accessibility rates of freestanding URL citations found in dissertations written at the University at Albany in three distinct years: 2000; 2003; and 2006. Accessibility verifications were conducted through Google searches and Web archiving tools such as the Internet Archive and WebCite.

Mohammed Gharawi  Understanding Transnational Public Sector Knowledge Networks Project

Presenter Bio:
Mohammed A. Gharawi is a Ph.D. candidate in the Information Science program and a graduate assistant at the Center for Technology in Government 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 obtained his Masters degree in Computer Science from the University of South Florida in 2001.

Abstract:
Governments of the world are evolving toward a complex global network of political, societal, and economic dependencies, enabled in part by the expanding capabilities of information and communication technologies. This poster aims to present the goals, achievements, and future directions of a current research effort being conducted by the Center for Technology in Government (CTG) to analyze the actual experiences of government and partner organizations in the United States, Mexico, and China.
<table>
<thead>
<tr>
<th>Posters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mohammed Gharawi</strong></td>
</tr>
</tbody>
</table>
| **Abstract:**  
 While Inter-Organizational Information Integration (III) has long been recognized as enabler for e-government, few studies have been conducted to address III within non-western’s countries context. This poster draws upon an ongoing study that aims to explore the roles that authority and leadership play in influencing III initiatives within the context of the Kingdom of Saudi Arabia (KSA). Based on existing literature, the study proposes a conceptual framework that will be tested by applying it to explore one of the most successful III initiatives in the KSA, a payment system launched in October 2004 to be the national Electronic Bill Presentment and Payment (EBPP) service provider for the Kingdom of Saudi Arabia (KSA). The initiative has been introduced by Saudi Arabian Monetary Agency (SAMA) to facilitate and streamline bill payment transactions of end consumers through all channels of the kingdom’s banks. |

| **Daniel Johnson**  | Quick Response Codes in Library Services |
| **Presenter Bio:**  
**Daniel Johnson** is a third semester Information Studies graduate student interested in "21st Century" and "paperless" technology and the changes they may have on librarianship. |
| **Abstract:**  
This research is in the area of smart phone technology use in library services. Specifically, the poster focuses on Quick Response Code applications. QR Codes are a new format of barcode that can hold far more information than a traditional barcode. QR Codes are used with a smart phone’s camera function that tap the information and bring the user to the whatever is stored in the barcode. QR Codes used in libraries are only limited to the imagination and time library staff are willing to dedicate to setting up these resources. Reader applications downloaded by the user are also widely available for free. This new “app” can completely change the way we navigate the library as well as many services are provided therein. |
Dima Kassab & Xiaojun Yuan
Understanding the Information Needs and Search Behavior of Mobile Internet Users

Presenter Bio:
Dima Kassab is a Masters degree student in the Information Studies program with a concentration in Information System and Technology at the University at Albany – State University of NY. She is attending school on a Fulbright scholarship. Dima Kassab received a Bachelor’s degree in Computer Science from the University of Aleppo, Syria. Ms. Kassab will start her Ph.D. studies in the Informatics department in Fall 2011. Her research interests include the information needs and searching behaviors of mobile users, the potential of using mobile technology as a collaboration tool, and the impact of mobile technologies on users and societies.

Abstract:
This poster investigates the information needs and search behaviors of mobile internet users. It focuses on understanding their concerns, issues and attitudes when they use their mobile devices to locate information. In this pilot study we will do preliminary interviews with college students to discuss on a one-to-one basis their mobile internet habits.

Sreekumar Nampoothiri
The Effect of Institutional Structure for Intelligent Transportation Systems (ITSs) on Traffic Incident Management in the Capital Region

Presenter Bio:
Sreekumar Nampoothiri is a first year doctoral student in the Information Science program. 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. He is a Ph.D. student in Informatics whose interests are in the fields of policy, GIS, and organizational efficiency.

Abstract:
Intelligent Transportation System (ITS) refers to efforts to add information and communications technology to transport infrastructure and vehicles in order to manage factors that typically are at odds with each other. ITS is being employed to identify, locate, and manage traffic emergencies. This requires coordinated actions from a number of public agencies and the individuals involved in these emergencies.

There is a concerted effort to bring together ITS and emergency management in the Capital Region to better manage emergencies. It is essential to identify the basic structure of institutional network of these actors to understand strengths, weaknesses, opportunities, and constraints of the emergency management. This analysis can shed light on future modifications in the structure that can improve emergency management.
Ning Sa

**Review of the RTE Challenge: My First Attempt**

**Presenter Bio:**

Ning Sa is a first year Ph.D. student in Informatics at the University of Albany – State University of NY. Her current research interests are Knowledge, Organization and Management (KOM) and also information in organizational environments (IOE), especially information in business. She obtained her B.S. degree in microelectronics from Sichuan University, China and M.S. degree from Peking University, China, also in microelectronics.

**Abstract:**

Textual Entailment Recognizing is a task of deciding, given two text fragments, whether the meaning of one text is entailed (could be inferred) from the other text. This task captures a broad range of inferences that are relevant for multiple applications, such as Question Answering, Information Retrieval, and Information Extraction. In previous RTE proceedings, approaches used include words overlapping, statistical lexical relations, syntactic matching, logical inference, and machine learning classification, etc. The method used in this work involves the following steps: locate the shorter statement of the two; parse the statement; find synonyms of the VPs and NPs; calculate the similarity of the two statements; update confidence based on the corpus. Limitations of the methods and what to do next are pointed out.

Alexander Trofimovsky

**Development of an Open Source Table Mounted Eye Tracker**

**Presenter Bio:**

Alexander Trofimovsky is a first year doctoral student in the Department of Informatics at the State University of New York at Albany. His primary specialization is Human-Computer Interaction and his secondary is Knowledge, Organization and Management.

**Abstract:**

An eye tracking system has been built using open source software and off-the-shelf hardware with the aid of the associated gaze tracking community. The system is table-mounted and employs a Creative Live! HD Web cam. One infrared light source is placed to the side of the camera to create a single corneal reflection (glint) and a dark pupil effect. A stand for the camera and light source was built using hardware purchased from Lowe’s. The system uses the ITU Gaze Tracker application (San Agustin et al., 2010) to process eye images and detect pupil and glint, and a User Datagram Protocol (UDP) client application to receive x-y gaze coordinates (Oliveira et al., 2010). In the current iteration, the camera captures a single eye (monocular eye tracking) at 26-30 frames per second. Although some adjustment and calibration is required, accuracy better than 1º of visual angle is routinely achieved.
Sandra Zelka  Codification of Accounting Pronouncements: Effect on Continuity of Terms

Presenter Bio:
Sandy Zelka is a first year Informatics Ph.D. student at the University of Albany—State University of New York with a primary specialization in Financial Information Systems and Policy Design and secondary specialization in Information Assurance. Sandy is a CPA with 20+ years of industry experience and has served as CFO and Global Controller for domestic and international public and private companies. Her research interests include the financial regulatory industry.

Abstract:
The Financial Accounting Standards Board (FASB) Codification project was announced in 2004. The verification was completed on July 1, 2009, making the Codification the single source of authoritative non-governmental U.S. Generally Accepted Accounting Principles (GAAP). I present a preliminary comparison of terms used in first three levels of the GAAP hierarchy and the Codification. Initial results show that the authors were internally consistent in the Codification, but instances of terminology differ from the original pronouncements. I also provide a review of the implementation of these new terms in accounting literature.

Tianchi (Daniel) Zhang  Bus Rapid Transit Development in Albany NY

Presenter Bio:
Tianchi Zhang is a first year Ph.D. student in Information Sciences at the University of Albany – State University of NY. He received a Masters in Urban and Regional Planning from the Department of Geography and Planning in August 2010. His research focus is on transportation models and GIS applications for transportation planning.

Abstract:
Bus Rapid Transit (BRT) is generalized as an approach for using buses as an improved high speed transit system. By applying innovative technologies, 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. The research reviews main characteristics of the BRT system and the BRT funding sources. 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.
Presentations

Sherly Abraham -- p16
Dr. Alain Diebold -- p4
Mohammed Gharawi -- p14
Lenore Horowitz -- p12
Kuang-Yuan (Ray) Huang -- p5
Stephen Lackey -- p10
Jeongyoon Lee -- p15
Junesoo Lee -- p13
Jonathan Muckell, Fan Ping, and Vikram Patil -- p6
Taewoo Nam -- p5
Sreekumar Nampoothiri -- p8
Dr. Devendra Potnis -- p13
Weijia Ran -- p9
Xiaoi Ren -- p12
Shiho Sawai & Djoko Sayogo -- p7
Djoko Sayogo -- p11
Weiyi Sun -- p15
The Conference Committee would like to thank everyone who helped them put together this amazing event, including (but not limited to): Dr. Jennifer Goodall, Heide Horan, Lenore Hornowitz, and Dr. Jagdish Gangolly.

Thank you,
Avinash Bachwani, Robert Ekblaw, Sreekumar Nampoothiri, Ning Sa, Alexander Trofimovsky, Sandra Zelka, Tianchi (Daniel) Zhang
This is the sixth year of the NTIR conference. It was conceived as a forum for doctoral students and faculty from the University at Albany-State University of New York 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.