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Seattle, with its strategic position on the Pacific Rim, proximity to Canada and the rich traditions of the indigenous tribes of the Northwest, and its own cultural diversity was a particularly appropriate venue for an Annual Meeting with the theme “Connecting Collections, Cultures and Communities.” The meeting was well and enthusiastically attended with side attractions such as a preview of the new website and an opportunity to provide input to the members working on the ASIS&T strategic plan. This issue provides a taste of some of the many interesting presentations and discussions available at the Annual Meeting.

Inside, you will find summaries of three pre-conference, SIG-sponsored workshops (SIG/IP with SIG/III; SIG/USE; and SIG/SI), which have grown in number and ambition over the years as the meeting itself has been shortened. SIGs have established their own awards to recognize achievement in their areas of interest, whose announcement may be included in the workshop along with papers, posters and panels.

The Bulletin has, of course, always covered Association-level awards, publishing citations and photographs of award recipients. In an effort to better acquaint the membership with the achievements of some the Association’s highest honors, we also include the acceptance speech of 2014 Award of Merit honoree Marge Hlava and an article by Diane Kelly, 2014 Research Award recipient, about her research.

As part of the Annual Meeting coverage, we include write-ups of the two plenary sessions by speakers Kris M. Kutchera of Alaska Air Group and Alessandro Acquisti of Carnegie Mellon University. Our thanks to Steve Hardin for covering the talks.

We would also like to thank the dedicated members of the RDAP (research data access and preservation) community who have solicited columns and/or edited issues for the Bulletin for the last three years: Lizzie Rolando, Susan Wells Parham and Jennifer Doty. We are fortunate to have a RDAP Review column in this issue on the Joint Declaration of Citation Principles by four of its principal movers – Micah Altman, Christine Borgman, Mercè Crosas and Maryann Martone.

Finally, on the President’s Page, president Sandy Hirsh, in her first column of the new year, looks back and reflects on her experiences at the 2014 meeting of the Council of Scientific Society Presidents and the commonality of the problems faced by all such institutions. Looking forward, she reviews her goals for the year, including a strategic plan for ASIS&T, and updates us on the progress of the redesign of the website.
The new year is a time for reflection and goal setting. In this spirit, I will reflect on and share some of the insights I gained from attending the Council of Scientific Society Presidents meeting, and I will look forward to what is ahead for our association in 2015.

Reflecting on the CSSP Meeting

After our Annual Meeting in Seattle, I attended a very stimulating and productive meeting of the Council of Scientific Society Presidents (CSSP), an organization of the presidents of about 60 scientific federations and societies. During the meeting, we heard from many distinguished speakers, including France Córdova, director, National Science Foundation; John Holdren, director, White House Office of Science and Technology Policy; Joe Palca, National Public Radio; Neil Gershenfeld, Massachusetts Institute of Technology; Hunter Rawlings III, president, Association of American Universities; and Andy Reynolds, deputy science and technology advisor to the Secretary of State, U.S. Department of State. These speakers addressed a range of timely and important topics that are relevant to ASIS&T and scientific societies in general. Here are some of my key takeaways:

- Different societies – similar issues: Even though the societies belonging to CSSP are diverse and range significantly in size – from those with fewer than 1000 members to those with more than 100,000 members (the American Chemical...
Society has more than 160,000 members, one of my biggest takeaways was that scientific and professional societies are generally experiencing similar issues and are evolving in similar ways. For example, many of these societies have recently changed (or are considering changing) their names and membership from “American Societies” – just as ASIS&T did – to be more inclusive and representative of their international membership. Several are also wrestling with whether to change their names as their field’s terminology has evolved.

- **Importance of awareness and advocacy:** Scientific societies are very concerned with public awareness of science and how to ensure there is broad support and awareness about their contributions and impact. This concern for public awareness connects well with one of our strategic initiatives this year – the work that the Information Professionals Taskforce is engaged in, specifically its focus on broadening employer and public understanding and awareness of the information professions. The CSSP focuses a great deal of its efforts on advocacy (for example, meeting with members of Congress, doing Capitol Hill briefings) to address such concerns and to ensure continued investment in science. The collective voice of this organization – over 1.4 million scientists and science educators – is powerful and allows smaller associations like ASIS&T to effect change at a national level that would not be possible otherwise.

- **Best practices:** I especially found it valuable to share best practices with other associations. For example, here are some of the topics I thought were interesting and relevant for ASIS&T:
  - How other associations handle strategic planning (for example, frequency of major strategic planning initiatives, how funding for strategic initiatives is handled, who is responsible for leading strategic planning initiatives)
  - Association governance (board size, succession planning, board training)
  - Public outreach (staffing for these efforts, strategies used, costs for PR initiatives)
  - Relationships with related associations (how/whether they partner, give discounts for belonging to multiple associations, hold joint meetings)
  - International practices (frequency of holding meetings outside the United States, cultural differences)
  - The importance of diversity and inclusion (including ideas for ways to achieve them within associations).

I will apply some of these best practices and the new knowledge I gained to benefit our own association.

**Looking Ahead to 2015**

In my last President’s Page, I discussed my three goals for my year as president. Specifically

- develop a strategic plan for the Association,
- identify ways to attract, engage and retain members, especially practitioners, students and international members and
- advocate for the information professions.

All of the committees and task forces are hard at work to move these initiatives forward. We have some preliminary findings from the strategic planning focus group interview sessions and poster-board questions that were collected during
the Annual Meeting in Seattle, and we will be holding additional focus group sessions as well. More information will be shared soon regarding progress on these initiatives.

One of the biggest changes that will greet us early in 2015 is our completed website redesign. The new website is applying responsive design principles, enabling the site to render well on mobile devices. This new design detects the size of the device being used such as cellphone or tablet and automatically adjusts the display for that device. Going through the development process with Seven Heads (the design team) has prompted us to update more than just our website, but also some of our practices and procedures – many of which had not been assessed in years. We expect to start the transition from the current site to the new site in mid-to-late February.

For some time, as we work out bugs, both sites will continue to be available. It may take longer than February to finish migrating all of the content to the new site (www.root.asist.org). On the new site, the contact button currently functions to allow anyone to make comments or suggestions regarding what they like or don’t like about the design and functionality. We are interested in your feedback.

In closing, as I reflect on our Association, I am very grateful for our members’ engagement, support and volunteer efforts, which make ASIS&T a successful and vibrant organization. I am looking forward to working with you in 2015 on the strategic goals we have set so that we can continue to build on the strengths of the Association and ensure that ASIS&T remains strong for many years to come.
In the December/January issue of the Bulletin of the Association for Information Science and Technology, we provided a brief news report of our 77th Annual Meeting in Montreal. But the timing of both the meeting and this publication’s deadlines kept us from providing full photographic and text coverage of the fun, the substantive, the social and the ridiculous at the successful ASIS&T confab.

So join us throughout this issue of the Bulletin for a look at some of the work and fun that members and guests enjoyed in Seattle at the 2014 ASIS&T Annual Meeting. Following a photo montage from the meeting, you’ll find coverage of the ASIS&T Annual Awards presented at the conference. Also in this issue, other Annual Meeting coverage includes reports from many of the pre-conference workshops and seminars; the plenary sessions headlined by Kris Kutcher and Alessandro Acquisti; the Award of Merit acceptance speech delivered by Marjorie Hlava; and an article by our 2014 Research Award recipient Diane Kelly.
One of the highlights of each year’s ASIS&T Annual Meeting is the presentation of the prestigious ASIS&T Annual Awards.

AWARD OF MERIT

Marjorie M.K. Hlava, president of Access Innovations, Inc., is the 2014 recipient of the ASIS&T Award of Merit, the highest honor presented by ASIS&T. The award goes to an individual who has made a noteworthy contribution to the field of information science, including the expression of new ideas, the creation of new devices, the development of better techniques and outstanding service to the profession.

Marjorie Hlava has spent 40 years demonstrating how published theories of information science work in large-scale environments. Information professionals, as well as people not even aware they are part of the information industry, use things she has created without realizing it. She has a keen eye for identifying ways in which fundamental principles of knowledge organization can become useful in the less-than-perfect environment of everyday applications. Marjorie has created applied opportunities where none existed, thereby expanding the field itself. She could easily have led an academic life; however, she chose a different, and in many ways more difficult, way of shaping information science. She created a company and set of products and solutions (standards, schemas, languages, databases, taxonomies) that apply principles and drive research by demonstrating what works and what needs to be done. Patents, a diversity of projects and a spirit of entrepreneurship illustrate key linkages between associated fields strengthened by Marjorie’s work. Her work demonstrates much of what ASIS&T stands for – the unique blend of applied and theoretical work.

In recognition of all that she has done for the field of information science and the respect she has garnered from both the scientific and practical elements of our field, the 2014 ASIS&T Award of Merit goes to Marjorie Hlava.

WATSON DAVIS AWARD

ASIS&T’s Watson Davis Award recognizes the contributions of someone who has shown continuous dedicated service to ASIS&T. In 2014, the person who most effectively lives up to that ideal is Vicki Gregory. Vicki has demonstrated dedicated service to ASIS&T for more than 20 years, including continuous service on the Board since 2002, beginning as Deputy SIG Cabinet Director, then SIG Cabinet Director and then three terms as Treasurer.

Her tenure as treasurer has been particularly notable, both because the Association is now in the black (a rarity among our sister societies) and because her reporting is clear and concise (a rarity among treasurers).
One impressive accomplishment is that the total assets for the organization during Vicki’s tenure as treasurer have increased 81%. As treasurer, she has stewarded the society successfully through what was a tough financial time for other professional societies. Her stewardship contributed to ASIS&T’s comfortable present financial situation.

Vicki’s service to the society has been strong, impactful and remarkably constant especially in the last few years. She has taken leadership roles that are not particularly popular and has molded them, and the society, through her strong vision and service. She has activities in her local chapter, as SIG director and as a member of the Board – a nice trifecta. She seems to take one role on at a time and fully inhabit it. This is honorable and worthy of the 2014 Watson Davis Award.

**RESEARCH AWARD**

**Diane Kelly**, University of North Carolina at Chapel Hill, is the recipient of the 2014 ASIS&T Research Award. Dr. Kelly has been conducting a coherent, original and important program of research in human-centered information retrieval (IR) over the past decade. She does outstanding research of the highest quality, and the field of IR and information science in general, has learned a great deal from it in theoretical, methodological and practical senses.

Dr. Kelly’s work is in the mainstream of the most interesting experimental research being done in IR. In particular, she is focused on information search behavior and the design and evaluation of systems that support interactive information retrieval (IIR). She is known internationally for her expertise in evaluation methodologies. Her work, *Methods for Evaluating Interactive Information Retrieval Systems with Users* (2009), is the standard reference in the field. *Interactive Information Seeking Behavior and Retrieval* (2011), co-edited with Ian Ruthven, is the basic introduction to the field of IIR. Over the last decade, her work on understanding and evaluating IIR has appeared in the world’s most significant journals in information science, including *JASIST, ACM Transactions on Information Systems and Information Processing and Management*, as well as in the most selective and significant conferences in the field. This is an outstanding publication record over such a short period, clearly supporting the significance and quality of her research and research program.

**THOMSON REUTERS OUTSTANDING INFORMATION SCIENCE TEACHER**

The 2014 Thomson Reuters Outstanding Information Science Teacher Award goes to **Michelle Kazmier**, professor in and associate director of the School of Information within the College of Communication and Information at Florida State University. A passionate educator and researcher in the field of information science, Dr. Kazmier epitomizes the stated criteria for this award, most notably the expectation of “sustained and unique contributions to teaching information science.” In Dr. Kazmier’s courses, students learn and have fun at the same time, illustrating the innovative and imaginative teaching environment that inspires her students. She has written extensively on the e-learning space and has won several teaching awards at Florida State University. Through her
Inside ASIS&T webinar, “Transforming Our Learning ‘Worst Practices’ into Excellent Teaching,” she has shared her successful and inventive teaching methods with colleagues throughout the profession.

Dr. Kazmer’s research focuses on distributed knowledge and explores and theorizes the activities and systems (including technology systems, institutional systems, cultural systems, etc.) associated with distributed knowledge processes. Her work is collaborative and multidisciplinary, and she places a high priority on her work with graduate students. In addition, Dr. Kazmer has an outstanding publication history reflecting both her research and her teaching outcomes.

For all these reasons and more, we recognize Michelle Kazmer with the 2014 Thomson Reuters Outstanding Information Science Teacher Award.

Best JASIST Paper

The 2014 Best JASIST Paper Award goes to Suzan Verberne, Maarten van der Heijden, Max Hinne, Maya Sappelli, Saskia Koldijk, Eduard Hoenkamp and Wessel Kraaij for their paper, “Reliability and Validity of Query Intent Assessments” (volume 64, issue 11). The authors address the important and difficult task of assessing the reliability and validity of human annotated data for advancing our understanding of user search behaviors and user models. The jury notes that one of the key strengths of this paper lies in its dichotomous approach to assessing query intent using both searchers and assessors and their inter-assessor and searcher agreement. What is unique about this study is the reflection of using human annotated data for IR experimental purposes, which is quite rare from system-oriented IR perspectives. The query intent classification developed in this study is a sophisticated one and provides a more rounded approach to query intent identification. The study of searchers using their natural queries as opposed to artificial or simulated tasks is also one of the strengths of this study for generalization purposes. The results have significant implications and contributions for not only search engines, but for a broad range of digital information access and retrieval systems.

Pratt Severn Best Student Research Paper Award

The 2014 Pratt Severn Best Student Research Paper Award goes to Curt Arledge, University of North Carolina at Chapel Hill, for his paper, Filled-in vs. Outline Icons: The Impact of the Icon. The paper, completed in partial fulfillment of the degree requirements for his MSIS degree, focuses on a timely problem in the domain of usability and the findings, according to his research adviser, “have practical implications for user interface designers and make research contributions to our understanding of how icon style impacts usability.” Among the jurors’ comments was the notation that “[t]he study identifies a specific question and motivates the value of that question effectively. [The study is] not only beautifully done research, but it’s stunningly well written in the sense that it is clear, linear, organized and detailed.”

The jury gives special runner-up recognition to Scott Dewey and Richard Cho from University of California at Los Angeles for their paper Dr. Zhu and the Los Angeles Taxi Drivers: Or, How We Wandered into the Minefield of Misalignment.

Best Information Science Book Award

The Discipline of Organizing by Robert J. Glushko, published by The MIT Press, and Going Viral by Karine Nahon and Jeff Hemsley, published by Polity, are both winners of the 2014 Best Information Science Book Award.

The Discipline of Organizing offers a framework for the theory and practice of organizing that integrates information organization and information retrieval, bridging the disciplinary chasms between library and information science and computer science. The book introduces the
unifying concept of an organizing system – an intentionally arranged collection of resources and the interactions they support – and then explains the key concepts and challenges in the design and deployment of organizing systems in many domains. The book covers the activities common to all organizing systems: identifying resources to be organized; organizing resources by describing and classifying them; designing resource-based interactions; and maintaining resources and organizations over time. The jury notes that the authors made a significant effort to integrate and synthesize key concepts and principles of the organization of information that were previously scattered and fragmented.

*Going Viral* looks at our digital lives – in which a tweet can be instantly retweeted and read by millions around the world, where a video forwarded to friends can destroy a political career in hours, and where an unknown person can become an international celebrity overnight. Virality: individuals create it, governments fear it, companies would die for it. So what is virality and how does it work? Why does one particular video get millions of views while hundreds of thousands of others get only a handful? The authors analyze the characteristics of networks that shape virality, including the crucial role of gatekeepers who control the flow of information and connect networks to one another. They also explore the role of human attention, showing how phenomena like word of mouth, bandwagon effects and interest networks help to explain the patterns of individual behavior that make viral events. The jury considers this book to be significant information science research on a timely topic with fascinating data and conclusions.

Both of these books deal with topics of great significance in today’s world and are invaluable resources for students and professionals. They are worthy winners of the Best Information Science Book Award.
In modern archival science, one of the central concerns is the challenge of dealing with born-digital records. The study, a history of the short message service format, highlights the role that the material technological infrastructure plays in the creation and evolution of digital records. This and other compelling insights, presented with sophistication and clarity, have great potential to influence future work in this area. Members of the jury were unanimous in selecting this outstanding work, noting this “excellent project and its execution - conceptualized with sophistication and engaging media archaeology techniques in the context of archival work... stood out among all the others.... The author has superior writing and storytelling abilities.”

In addition, the jury specifically cited two additional students, Bela Gipp and Roberto González-Ibáñez, for their submissions and named them runners-up for this year’s award.

The ProQuest Doctoral Dissertation Award is presented to Amelia Acker, University of Pittsburgh, for her dissertation entitled, Born Networked Records: A History of the Short Message Service Format, to complete her Ph.D. work at the University of California, Los Angeles. Dr. Acker’s dissertation is a fascinating, original and eloquently presented piece of research that crosses over several disciplines: archival science, the history of science and technology, media studies and information science. It addresses one of the central concerns of modern archival science: the challenge of dealing with born-digital records. The study, a history of the short message service format, highlights the role that the material technological infrastructure plays in the creation and evolution of digital records.
CHAPTER AWARDS

CHAPTER-OF-THE-YEAR

The New England Chapter of ASIS&T (NEASIST) is the worthy recipient of the 2014 ASIS&T Chapter-of-the-Year Award. Throughout 2014, NEASIST once again exhibited the strength and depth of its membership and planning. The chapter started the year with a redesigned clean and mobile-friendly website (neasist.org) that includes a calendar for event and meeting details. In addition, the chapter remains active on various regional listservs and social media and makes effective use of Meet-up.com to advertise events. These actions brought in many diverse professionals. The chapter also made extensive efforts, both online and face-to-face, to reach out to members who did not renew their memberships and supported a Student Travel Award to the Annual Meeting. It held monthly program committee meetings and organized a number of events with guest speakers on topics such as digital curation, big data, privacy, etc. After every event, chapter representatives send thank you notes and a short survey to attendees. One of the many testimonials it received said, “As an early-career information professional, I’m truly pleased to have discovered NEASIST. No other organization combines the friendly welcome, the professional competence and the interdisciplinary participation… At every event and meeting, I come away having learned something – and also having shared something from my own experience. People come to NEASIST events because the programming is so useful professionally and so inspiring intellectually.” The chapter has an active collaboration with the student chapter at Simmons College, with a liaison present in all program committee meetings. In the coming year, the chapter plans to expand its geographical reach and membership beyond the Boston Metro area and hold monthly informal meet-ups.

For these reasons and more, the New England Chapter of ASIS&T is once again named the Chapter-of-the-Year.

STUDENT CHAPTER-OF-THE-YEAR

For 2014, Student Chapter-of-the-Year honors go to the student chapter at Simmons College, which had another exceptional year. Chapter members worked tirelessly on creative outreach and marketing strategies aimed at increasing membership. The success is in the numbers with 41 new members added to the rolls in the past year. The chapter has hosted an impressive number of events, both social and technical. A mix of practical topics and research reports populate the technical program schedule for the group, which also collaborates closely with the New England Chapter of ASIS&T. Chapter events seem to be well organized, well publicized and well presented.

For these reasons and others, the student chapter of Simmons College is the 2014 Student Chapter-of-the-Year.
SIG AWARDS
SIG-of-the-Year

The ASIS&T 2014 SIG-of-the-Year Award is presented to SIG/Digital Libraries (SIG/DL) in recognition of its superior all-round efforts during the past administrative year. The jury cited SIG/DL for a number of reasons. Among them are successful efforts at expanding participation through a conscientious social media presence and the launch of a new electronic publication; sponsorship of poster and lightning talk sessions at the 2013 Annual Meeting providing a valuable venue for presentation of research to peers and information professionals; access to the recorded proceedings of the Annual Meeting sessions via YouTube; and outstanding educational outreach to members and practitioners. Because of these varied and enjoyable activities and opportunities, SIG/DL achieved a very high level of member engagement for this year’s activities and in planning for future undertakings that benefit not only SIG/DL members, but all of ASIS&T and the field of information science and technology in general.

For all these reasons, SIG/Digital Libraries (SIG/DL) is the 2014 ASIS&T SIG-of-the-Year.

SIG Member-of-the-Year

Abebe Rorissa is the worthy recipient of the 2014 SIG Member-of-the-Year Award. He has been an active leader in ASIS&T for the past 12 years. Among his many activities are member of the ASIS&T Bulletin Advisory Board; guest editor of two issues of the Bulletin of the Association for Information Science and Technology; assistant editor of the Proceedings of two ASIS&T Annual Meetings; manuscript reviewer for JASIST and ASIS&T Annual Meetings; and member of the Pratt Severn Best Student Research Award Jury. But it is his service to ASIS&T special interest groups that earns him SIG Member-of-the-Year honors. Abebe has been an active member of SIGs/VIS, USE and III.

He is honored in 2014 for his leadership role with SIG/III in 2012 and 2013. Under his careful stewardship, SIG membership increased, and members celebrated SIG/III’s 30th anniversary, publishing a commemorative volume, which won the 2013 ASIS&T SIG Publication-of-the-Year Award. Over the past year he coordinated SIG/III’s first webinar, attended by 100 members and downloaded by another 130 members within the first two weeks. During the current year, he has advised the SIG on a variety of projects and activities, including the InfoShare Program and International Paper Contest; has helped negotiate a long-term agreement with the Routledge/Taylor & Francis group to support the International Paper Contest and its publication of winning papers in the International Information & Library Review. Most recently he and Daniel Gelaw Alemneh co-edited a special section of the Bulletin – International Information Issues and ASIS&T.

Abebe Rorissa is a trusted and committed member of the SIGs that he joins and a valuable member of the entire ASIS&T community.

SIG Publication-of-the-Year

The 2014 SIG Publication-of-the-Year Award is awarded to Pnina Fichman and Howard Rosenbaum, Special Interest Group/Social Informatics (SIG/SI) for Social Informatics: Past, Present and Future, published by Cambridge Scholarly Publishers. Since 2005, SI researchers have gathered every fall at the Social Informatics Research Symposium, organized by ASIS&T SIG/SI. The
symposium, which is held in conjunction with the ASIS&T Annual Meeting, is a meeting place for people interested in exploring the social aspects of computerization. Over the years, it has attracted a vibrant mix of established scholars, newcomers to SI and, importantly for the future of this field, many doctoral students from a broad range of disciplines.

This publication grew out of the 8th Social Informatics Symposium, which was held in Baltimore in the fall of 2012. A series of papers focused on the past, present and future of social informatics, exploring a wide range of topics relevant to the field. Cambridge Scholarly Publishers approached the symposium organizers, Pnina Fichman and Howard Rosenbaum, to develop the symposium theme into what has become this edited volume. Seven of the papers presented at the 2012 symposium have been expanded into full length chapters and are included in this book along with five papers that were solicited by the editors from presenters at previous SI symposiums. The result is a volume with 12 chapters that provides a look backward to the origin of SI, several examples of current research by SI scholars and several chapters that offer different visions of the future of SI.
CALL FOR PARTICIPATION

Information Science with Impact: Research in and for the Community
78th ASIS&T Annual Meeting

It’s time to consider your participation in the 2015 ASIS&T Annual Meeting, November 6-10, in St. Louis, Missouri. The deadline for many types of submissions is the end of April.

This year’s meeting, Information Science with Impact: Research in and for the Community, provides an opportunity for information science researchers – including academics and practitioner researchers – to discuss the impact of their research on industry, government, local/national/global community groups, on individuals, information systems, libraries/museums/galleries and on other practice contexts. The theme highlights the introduction of a new conference focus on applied research, which recognizes that basic research in information science is also inspired by, and/or connected to, information practice contexts.

Whether researchers investigate the implications of new information technologies in hospitals or explore best practices for managing collections in academic libraries, the impact of information science research in communities is significant. Information science research shapes policy decisions, informs organizational practices and changes the lives of individuals. Research designed to contribute to society, culture, the economy, the environment or other practice contexts outside academe is at the heart of information science research. Research findings, for example, can alter the records management practices of small, local community groups or they can change the ways that large, multinational companies share information across digital networks. The potential for impact in a discipline that is linked to diverse information settings, populations, technological contexts and service orientations is a defining feature of information science research.

Submissions

Submissions are encouraged that present theoretical or applied research with results that demonstrate one or more of the following themes:

- **Impact on individuals**: information behavior, information retrieval, human-computer interaction, social media use, information literacy, etc.
- **Impact on society**: digital citizenship, cultural engagement, archival preservation, policy development, copyright, intellectual property, informetrics, information access, etc.
- **Impact on organizations**: information architecture, knowledge management, competitive intelligence, digital curation, records and archives management, etc.
- **Impact on systems and technology**: cloud computing, digital libraries, automatic indexing, social tagging, classification, semantic web, database design, web usability, etc.
- **Impact on information contexts**: health, education, law, environment, agriculture, business, etc.
Authors of papers, panels and posters are to identify one or more of the impact topics that best fit their submissions and to identify whether the research presented is primarily applied or theoretical or whether it presents a balanced mix of both approaches. The chairs might change the submission categories if warranted.

In addition to the papers, panels and posters, workshops and tutorials will be offered in an informal setting for the exchange of ideas on a focused topic and suggest directions for future work. As such, workshops and tutorials offer a good opportunity for researchers and professionals to present and discuss work with an interested community. Workshops may be mini-focused research presentations, a series of working events, brainstorming and idea sharing sessions or even a forum for teaching/learning a new skill. In particular, SIGs are invited to submit proposals for half-day or full-day events on topics that are relevant to the goals of the SIG. Proposals that are not SIG-related or sponsored are also welcomed. Only one submission per SIG is allowed for a workshop.

Conference Committee
Lisa Given, Charles Sturt University, is conference chair for the 78th ASIS&T Annual Meeting. Brian Detlor, McMaster University, and Hazel Hall, Edinburgh Napier University, are paper co-chairs. Heather O’Brien, University of British Columbia, and Alison Brette, University of Salford, are panel co-chairs. Lynn Westbrook, University of Texas at Austin, and Michael Khoo, Drexel University, are poster co-chairs. Richard Hill, ASIS&T executive director, will chair the workshop and tutorial effort.

Additional Information
For additional meeting information, including details and deadlines for submissions of proposals, please visit the ASIS&T website regularly.
Trust in the Age of Data: Big and Small
by Kristene Unsworth

The Special Interest Groups/Information Policy (SIG/IP) and International Information Issues (SIG/III) joined forces at the 2014 ASIS&T Annual Meeting for an interdisciplinary workshop exploring trust in the context of data collection and mining. Among the topics addressed during the workshop were ethical stewardship of information, trust in the validity and authenticity of digital repository holdings, trust in extra-academic environments and trust as a critical requirement for interdisciplinary collaboration. The discussion of trust extended to justice in global regions in conflict, use of body cameras in law enforcement and broad scale population surveillance. The success of the workshop, particularly with its lively audience participation, will drive efforts to reinvigorate Special Interest Group/Information Policy as a unified forum on public policy and ethics related to information.

KEYWORDS
- trust
- information policy
- ethics
- data collection
- international aspects

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Editor’s Summary

The Special Interest Groups/Information Policy (SIG/IP) and International Information Issues (SIG/III) joined forces at the 2014 ASIS&T Annual Meeting for an interdisciplinary workshop exploring trust in the context of data collection and mining. Among the topics addressed during the workshop were ethical stewardship of information, trust in the validity and authenticity of digital repository holdings, trust in extra-academic environments and trust as a critical requirement for interdisciplinary collaboration. The discussion of trust extended to justice in global regions in conflict, use of body cameras in law enforcement and broad scale population surveillance. The success of the workshop, particularly with its lively audience participation, will drive efforts to reinvigorate Special Interest Group/Information Policy as a unified forum on public policy and ethics related to information.

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- trust
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- international aspects

2014 Annual Meeting Coverage

Trust in the Age of Data: Big and Small, the first joint SIG/IP-SIG/III pre-conference workshop, debuted at the 77th ASIS&T Annual Meeting. The workshop was aimed at providing a space for collaborative, interdisciplinary inquiry into ways that information policies can affect how people enact and experience trust in relationship to data collection and data mining. As many of you are aware a number of long-term ASIS&T members and a few individuals who are new members (or soon to be members) have been working for some time to rejuvenate Special Interest Group/Information Policy. The success of this workshop was a terrific indicator that we are moving in the right direction. The idea for a workshop was a few years in coming and has been in the minds of a number of information policy and ethics scholars. At the 76th ASIS&T meeting in Montreal, Kris Unsworth, Nadia Caidi, Philip Doty and Christian Leuprecht made up a panel and each presented on information policy post-9/11. Issues related to information policy have had an ongoing presence at annual meetings and have taken a leading position in public discourse over the past years.

Frequently, ASIS&T pre-conference workshops are driven by current political and social concerns. Information policy and ethics are embedded in many of the tracks held over the years at our annual meetings and are the primary areas of research for a number of us. Data mining and the use of algorithms have taken increasing roles in popular discourse; yet for many of us they seem like old news since the endeavor to identify, organize and retrieve information from large sets of data is a foundational concern of information scientists and has strong roots in library science. As a profession we have struggled with the ethical and policy issues related to these endeavors.
The first joint workshop began with a panel presentation by Adam Moore and Batya Friedman, both of the University of Washington Information School. They were joined by Lisa Nathan, from the University of British Columbia. Lisa was also a workshop organizer.

Following this panel, presenters covered diverse topics related to trust and data. The concept of trust is crucial across a range of systems and is embedded in interaction. It also requires conscientious stewardship.

- **Lisa Nathan** started the day’s presentations with an overview of the challenges that are faced in efforts to “ethically steward collections of trauma in a conflict-ridden world.” She focused on work being conducted with the Canadian Truth and Reconciliation Commission as they attempt to document Canada’s legacy of colonizing initiatives.

- **Devan Donaldson** focused on the necessity of trust in holdings of digital repositories. While these types of archival resources have been available for some time, the increased diversity of user groups as well as resources held require ongoing analysis of ways to insure trustworthiness. In this sense trust can be construed as a feature of data validity and authenticity in situations where resource management is shared, as in a commons.

- **Nicholas Weber**’s paper offers an examination of the way trust has been maintained and sustained in institutions that are outside traditional marketplace or academic environments. He asserts that transplanting these observations to a digital environment may shed new light on solving similar types of problems in public policy situations and information infrastructures. Trust is also an integral feature of collaboration and interdisciplinary teams.

- **Dorte Madsen**’s presentation of a theoretical model to support multidisciplinary teams illuminates how common ground is established among interdisciplinary groups. Trust in the data as well as among team members is integral to success.

- **Ian King** presented an information system developed to support trust and transitional justice, specifically in relation to the Voices from the Rwanda Tribunal and the Violations Database from the Syrian Justice and Accountability Centre. In addition to trust, access and safety are important values that must be considered. Trust can also be questioned and requires verification.

- **Bryce Newell** looked at how body-worn cameras are increasingly being used by police departments to monitor not only suspects, but law enforcement officers as well. This use is a clear example of the balancing act that is necessary when considering aspects of trust and security.

- Extensive data collection can also lead to preventative measures. **Nadia Caidi** and her co-workers presented work on how the technologies used to monitor the over three million pilgrims who converge on Mecca each year to perform the Hajj are critical tools to help insure their safety. The data that is being collected throughout our daily lives is also a resource for wide spread dataveillance. These practices are far from transparent, and while there are many examples of the positive confluence of data, use and trust, questions about the legality of such use remain to be answered.

- **Alan Rubel** provided the final presentation of the day and left the group with important questions about our roles as information professionals in relation to trust and data.

While we were unable to come to an agreement about whether we can call this the “age of data,” we most certainly could agree that regardless of the different faces of trust, goodwill and open dialogue are critical, whether we are working together as teams or with the data.

This report would not be complete without mention of all in attendance. The audience participation greatly enhanced the event. We were especially honored that Toni Carbo was able to join us. Without her tireless work, neither of the sponsoring special interest groups would be where they are today. Outgoing Board director-at-large and chair of the 2014 Annual Meeting, Jens-Erik Mai, also provided the speakers with provocative questions throughout the day. All present helped make the workshop a memorable event.
Authors and Paper Titles
Nicholas Weber, University of Illinois at Urbana-Champaign, Center for Informatics Research in Science and Scholarship (CIRSS). Scallops, Lobsters and Public Goods: Two Conceptual Approaches to Trust in the Digital Commons
Dorte Madsen, Copenhagen Business School, Denmark, Department of Intercultural Communication and Management. Introducing a Meta-Disciplinary Model to Support Processes of Theorizing and Conceptualizing
Devan Donaldson, University of Michigan, iSchool. Development and Validation of a Scale for Measuring Digital Archival Document Trustworthiness Perception
Bryce Newell, Batya Friedman, Ian King, Tadayoshi Kohno, University of Washington, iSchool. Information Systems in Support of Transitional Justice: Trust, Access and Safety as Design Values

Lisa Nathan, Elizabeth Schaffer, University of British Columbia, SLiS. Collections of Trauma: Identifying Generative Frictions
Alan Rubel, University of Wisconsin, Madison. Against Trust: Bulk Metadata Collection, Statutory Interpretation and the Liberalism of Fear
Bryce Newell, University of Washington, iSchool. Policing with Body-Worn Cameras: Trust and Law Enforcement After Ferguson
Nadia Caidi, Karen McEwen, Christie Oh. University of Toronto, iSchool. The Spirit of the Journey: Global Pilgrims, Risk Assessment and Data Mobilization

Contacts and News
SIG/IFP (Facebook): www.facebook.com/groups/166379683522230/
ASIS&T ANNUAL MEETING PRE-CONFERENCE ACTIVITIES

SIG/USE Research Symposium
Context in Information Behavior Research
by Lu Xiao, Kyung-Sun Kim, Rong Tang, Lisa Given, Denise E. Agosto, Gary Burnett and Amanda Waugh

EDITOR'S SUMMARY

ASIS&T’s Special Interest Group/Information Needs, Seeking and Use (SIG/USE) met during the 2014 Annual Meeting for the group’s 14th Annual Research Symposium, focusing on Context in Information Behavior Research. Keynote speaker J. David Johnson set the tone as he encouraged research into the context of information activities outside the usual settings and using varied theoretical perspectives and tools. Attendees also heard 14 lightning talks exploring conceptual and methodological issues. Speakers considered time and emotion as dominant contextual influences in information behavior, the role of information overload and ways diverse contexts affect seeking and providing information. Discussion of research methods encouraged a mixed-method approach and analytic bracketing and illuminated how study participants create their own information context. During the world café session, tablmates discussed how information context is constructed and evolves, research gaps and available methodologies. The symposium ended with presentation of awards for outstanding research, best paper and poster and for travel to pursue studies. Gary Marchionini was recognized for his outstanding contributions to information behavior research throughout his career.

KEYWORDS
information needs  user behavior  information seeking
contextual information  information use  honors

2014 Annual Meeting Coverage

ASIS&T SIG/USE held its 14th Annual Research Symposium at the ASIS&T Annual Meeting in Seattle on November 1, 2014. The symposium entitled Context in Information Behavior Research drew more than 50 information behavior researchers, professionals, students and others interested in exploring the impact of contextual factors on information behavior. It featured a keynote address by the University of Kentucky’s J. David Johnson (http://comm.uky.edu/jdjohnson/; email: jdj<at>email.uky.edu), followed by a series of 14 lightning talks, world café group discussions and the presentation of the SIG/USE awards.

The 2014 SIG/USE symposium planning committee was co-chaired by Lu Xiao, University of Western Ontario, and Kyung-Sun “Sunny” Kim, University of Wisconsin-Madison. Committee members included Nicole A. Cooke, University of Illinois at Urbana-Champaign; Nicole Gaston, Open Polytechnic of New Zealand; Amelia Gibson, University of North Carolina at Chapel Hill; Sei-Ching Joanna Sin, Nanyang Technological University; Sue Yeon Syn, Catholic University of America; and Pertti Vakkari, University of Tampere. Amanda Waugh was the official Tweeter and storifyer for the event. The committee worked with SIG/USE chair Rong Tang, chair-elect Lisa Given and immediate past chair Denise Agosto in planning the event.
The symposium began with opening remarks by Rong Tang. Then, Sunny Kim introduced the symposium committee and the keynote speaker.

**Keynote Address**

**J. David Johnson**, professor in the College of Communications and Information Studies at the University of Kentucky, delivered the keynote address. In *Context: Silos, Boundary Spanning and Opportunities*, Johnson pointed out that the more people operate outside the often narrow silos of academe and span boundaries, the more they will come to appreciate the opportunities for contextual inquiry. Examining information seeking across a wide array of contexts broadens our understanding of it and helps identify the active ingredients serving as the essential foundations of more sophisticated contingency explanations. Many tools, such as hierarchical linear models and meta-analysis, are available for such contextual inquiry. Johnson emphasized the value of contingency approaches that move beyond the enumeration of factors in a situation to specify key situational factors that produce predictable states of information seeking. He encouraged more research with such approaches to investigate contextual elements that shape human information behavior.

The next portion of the symposium featured 14 juried lightning talks. The first round of talks had a theoretical/conceptual focus to studying information-seeking context in general, and the second round covered studies addressing methodological issues as well as context-related empirical studies.

Through a review of current research on information behavior, **Kyungwon Koh, Ellen L. Rubenstein** and **Kelvin White**, University of Oklahoma, tried to identify the ways in which information behavior researchers address the implications and potential impact of their results – the “so what?” question. They concluded that context plays a significant role in generating study findings and implications. Taking Iversen’s 1991 perspective on context [1], **Pertti Vakkari**, University of Tempere, suggested that one can conceptualize context as various levels of social reality. He explained how one can conduct a study of the context from the individual level to organizational level through a multi-level contextual analysis.

One theme that emerged from the lightning talks is that “time” is an underexplored contextual factor in information behavior research. **Anita Crescenzi**, University of North Carolina at Chapel Hill, reviewed how time can be incorporated in information-searching and -seeking models, highlighting time as a contextual factor in studies of information behavior. **Diana Ascher**, University of California, Los Angeles, proposed a framework to bring together two important but under-examined contextual aspects of information behavior – time and cultural orientation. **Yan Zhang**, University of Texas at Austin, presented a study examining the impact of time in health information seeking.

Other talks covered a wide range of topics related to the impact of context. **Yuanyuan Feng** and **Denise E. Agosto**, Drexel University, presented a pilot study that examined how context affects people’s experience and behavior, specifically with respect to mobile information overload. **Carol Landry**, University of Washington, presented a qualitative study that investigated the impact of emotion and time pressure on the information behavior of homebuyers (as examples of high stakes decision makers). **Sue Yeon Syn**, Catholic University of America, conducted a survey study about Facebook users’ information-seeking and information-providing behaviors in health information situations. Her results show that such behavior varies in different contexts.

Through an interview study, **Chi Young Oh** and **Brian Butler**, University of Maryland, College Park, explored the impact of context in international students’ information behaviors when they are settling in an unfamiliar environment.
related to theoretical/conceptual and methodological issues in studying context in human information behavior research. The attendees of a table discussed one question in the first 20 minutes, then switched to a different table (if they chose to do so) to discuss the question at that table for another 20 minutes. At least one attendee stayed at the same table during the switch as the table host to debrief what was discussed to the people who joined the table later. Also, a large paper tablecloth was provided at each table for the attendees to put down notes during the discussion (Figure 2). After the 40 minutes of discussions, the table host reported the main issues discussed at the table (Figure 3). Issues discussed are summarized below.

Theoretical/Conceptual Issues. Three of the six tables focused on the concept/theory-related discussion questions: 1) How would you define context? What are the main dimensions of context? 2) What types of context exist? What research gaps exist in studying context in human information behavior research? 3) Which theories/frameworks can we apply to study context in human information behavior research? And why?

World Café Session

After a short break from the lightning talks, SIG/USE symposium co-chair Lu Xiao led the audience in a world café session to discuss six questions related to the landscape of professional information practices.

Researchers also explored different ways and issues of studying context. Adam Worrall, Florida State University, used an empirical study to illustrate the importance of a mixed-method approach to consider the contextual factors in studying information behavior. Pam McKenzie, University of Western Ontario, introduced the “analytic bracketing” method to study context. Informing the interaction between researchers’ problem formulation and study participants’ notions of context, Isto Huvila, Åbo Akademi University, showed how the participants acted as creators of their context in relation to the studied human information behavior phenomenon.
Context is constructed by a community/society, and it changes depending on the culture, media, etc. The key dimensions of context may include places, information systems used, time, etc. A context may be multi-layered, and relationships among the layers/components of context may be hierarchical. Context is an important reason behind human information behavior.

Gaps in context-related research are found in the lack of (1) research with a clear definition of context, (2) research with context as independent variable, (3) research examining multiple levels of context and their interactions, (4) research focusing on higher level contextual factors, (5) research on interactions between the user and context, (6) experimental research, (7) comparative research, (8) intersectional research and (9) longitudinal studies.

Theories/frameworks that could be applied to context-related research include (1) critical theory, (2) heterotopia, (3) social cognition theory, (4) distributed cognition, (5) social exchange theory, (6) normative behavior, (7) information worlds, (8) information ground, (9) information horizon, (10) everyday life information seeking, (11) network society, (12) information flow, (13) sense-making, (14) hermeneutics, (15) symbolic interactionism, (16) embodied cognition, (17) activity theory, (18) user experience design/design thinking and so on.

Methodological Issues. The other three tables discussed research method/approach-related issues: 1) What factors do we need to consider when selecting methods for studies of various contexts? 2) What kinds of techniques can we use to study context in human information behavior research? 3) How do we examine contextual effects in a research study?

Some of the factors or issues to consider when we select research methods include (1) ethical issues, (2) research environment and context and (3) methodological diversity and triangulation, among others.

Techniques that can be applied to context-related research are (1) surveys, (2) interviews, (3) observations, (4) shadowing, (5) world café, (6) usability testing, (7) sense-making, (8) phenomenographic methods, (9) information horizons, (10) cognitive mapping, (11) techniques to display context and (12) longitudinal research approach.

Applying various theories and methods, we can examine the context more systematically. Studies using stage-based approaches, mixed methods or meta-analyses would help us better understand information behavior in context. Examining and comparing such behaviors in a static moment in time vs. in a lengthy period of time that keeps changing would also shed light on the dynamic relationships between the user and the context.

**Elfreda A. Chatman Research Award Presentations**

Following the world café discussion session, 2013 SIG/USE Elfreda A. Chatman Research Award winner **Waseem Afzal** presented his research project. “Information Needs: A Conceptualization, Operationalization and Empirical Validation” aimed to conceptualize, operationalize and empirically validate the construct of information needs, using a mixed methods approach to enumerate and test the core concepts embedded within the construct.

**2014 SIG/USE Research and Travel Awards**

Awards committee co-chairs Gary Burnett and Heather O’Brien presented this year’s winning submissions at the symposium and reminded the audience to consider applying for the 2015 awards competition. More information about the SIG/USE awards is located at [http://siguse.wordpress.com/awards/](http://siguse.wordpress.com/awards/)

The 2014 Best Information Behavior Conference Paper Award went to **Wan-Ching Wu** and **Diane Kelly**, University of North Carolina at Chapel Hill, for “Online Search Stopping Behaviors: An Investigation of Query Abandonment and Task Stopping.” Their paper investigates the factors that influence people’s search-stopping behaviors during online information search. The findings of their study show that participants made query abandonment decisions based on the properties of search results, of queries and of search tasks. Their decisions to stop a task were influenced by the content they had examined, the goals they wished to achieve, the subjective perceptions they felt and the study constraints they faced.

**Leslie Thomson**, University of North Carolina at Chapel Hill, received the 2014 Best Information Behavior Conference Poster Award for “When PIM Goes Public: A Case Study of OrganizedLikeJen.” The poster examines the personal information management system of an informal information provider.
This study identifies an underexplored research area – information “fixation” outside of the specific area of information. This year an additional “Certificate of Merit” was given to Kyungwon Koh, Ellen Rubenstein and Kelvin White for “Implications and Potential Impacts of Information Behavior Research.” In their pilot study, the authors explored ways that information behavior researchers address implications and the potential impact of their study results.

The 2014 Elfreda A. Chatman Research Proposal Award went to Diane Sonnenwald, University of Copenhagen, for “Towards a Theory of Human-Rare Book Information Behavior.” In this study, Sonnenwald will explore how individuals interact with rare historic books with the intention to develop a theory about such interactions. Sonnenwald will present the results of the research at the 2015 SIG/USE Research Symposium in St. Louis, Missouri.

Doctoral candidate Rebekah Willson, Charles Sturt University, received the 2014 SIG/USE Student Travel Award for her proposal entitled “Information in Transition: Examining Information Behavior of University Faculty as They Transition in Academe.” Her proposal focuses on the information behaviors of new tenure-track faculty members, specifically during the transition period from doctoral studies to faculty positions. To explore their information practices, Willson is using both qualitative interviews and content analysis of materials such as blogs, relevant policy documents and research support materials.

Eric Meyers, University of British Columbia, received the Interdisciplinary Travel Award to attend the American Educational Research Association (AERA) in Chicago in April 2015.

Lastly, Gary Marchionini, University of North Carolina at Chapel Hill, received the 2014 SIG/USE Outstanding Contributions to Information Behavior Research award. The award was given during the SIG/USE Annual Business Meeting. Marchionini’s work on information interaction and human-centered computing has made significant contributions to the field of information behavior research, incorporating understanding of the information seeking process, user search behavior and usability principles to the development of interactive information retrieval system interfaces. His 1995 book Information Seeking in Electronic Environments has had a remarkable influence on information behavior research, especially with the presentation of information-seeking process and sub-process models. Over the years, Marchionini’s numerous research and scholarly publications related to interfaces that support information seeking and information retrieval, usability of personal health records, multimedia browsing strategies and digital libraries have played an important role in advancing information behavior research. Marchionini’s international impact on the information behavior, seeking and use field is also seen in his work as the editor for the Morgan-Claypool Synthesis Series of lectures/monographs on information concepts, retrieval and services. In receiving the 2014 Outstanding Contributions to Information Behavior Award, Marchionini joins the SIG/USE Academy of Fellows. The full list of Fellows can be found online at http://siguse.wordpress.com/academy-of-fellows/.

Symposium Conclusion and Wrap-Up

Incoming SIG/USE chair Lisa Given offered closing remarks for the 2014 SIG/USE Research Symposium. She commented on the excitement and engagement of symposium attendees, as well as the innovative context concepts and research that were presented during the lightning talks and by the keynote speaker. Given welcomed attendees to the opening of the ASIS&T conference itself, which included several panels sponsored by SIG/USE. She also made an open call for ideas and volunteers for the 2015 SIG/USE Research Symposium, which was organized at the SIG/USE Business Meeting held during the ASIS&T Conference. Details about the 2015 symposium will be posted on the SIG/USE website in the coming months by the incoming co-chairs of the symposium – Rebekah Willson, Charles Sturt University; Devon Greyson, University of British Columbia; and Amelia Gibson, University of North Carolina at Chapel Hill.


Acknowledgement

Photos were taken by Rong Tang and EunYoung Yoo-Lee.

Reference

ASIS&T ANNUAL MEETING PRE-CONFERENCE ACTIVITIES

10th Annual Social Informatics Research Symposium
Connecting (Epistem ic) Cultures and (Intellectual) Communities
by Howard Rosenbaum and Pnina Fichman

EDITOR’S SUMMARY
At the 2014 ASIS&T Annual Meeting, the Special Interest Group/Social Informatics (SIG/SI) celebrated 10 years spearheading research on the intersection of people, information and communications technology. The SIG’s pre-conference symposium attracted an international group of scholars and students demonstrating ways their work applies to the Annual Meeting’s theme of Connecting Collections, Cultures, and Communities. Presented papers examined the influence of IT consultants’ work by organizational and technical contexts, social and cultural barriers impeding the use of information and communication technologies (ICTs) by resource-poor individuals, genre analysis of technologically mediated workplace practices and links between social networks and ICTs. A panel discussion explored ties between epistem ic cultures and intellectual communities and ways to promote social informatics research on the topic. The SIG presented awards for Best Paper and Best Student Paper, both touching on collaboration to enhance content. The importance of the annual research symposium was reinforced by SIG/SI earning the 2014 SIG Publication-of-the-Year Award for a book that emerged from its 2012 symposium.

KEYWORDS
social informatics
research and development
Cultural aspects
Communities
Information use

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T his year, SIG/Social Informatics (SIG/SI) celebrated a decade of successful and vibrant SIG/SI research symposia, holding its 10th Annual Social Informatics Research Symposium on November 1, 2014, at the 77th Annual Meeting of the Association for Information Science and Technology in Seattle, Washington. Since 2004, established scholars, young researchers and doctoral students interested in the study of people, information and communications technology (ICT) and work and play have gathered at the SIG/SI ASIS&T Annual Social Informatics Research Symposium to share their work and ideas. Approximately 100 papers, posters and panels have been presented during the last decade, and for the past three years, an awards ceremony honoring the best papers published by social informatics (SI) faculty and students in the preceding years has been held.

Pnina Fichman and Howard Rosenbaum, both from the School of Informatics and Computing at Indiana University, Bloomington, organized this year’s symposium, which was attended by an international group of scholars and students. This year the symposium featured an opening talk by Pnina Fichman, who reflected on the decade of research that has been presented at the symposium and commented on the ways in which, through this annual gathering, SIG/SI has been involved in connecting (epistem ic) cultures and (intellectual) communities; this introduction set the tone for the day, aligning the symposium theme with the conference theme: connecting collections, cultures and communities.

Following the introduction, the first session of the symposium featured four papers, each of which brought a different perspective to bear on the symposium theme.

This report is sponsored by ASIS&T SIG/Social Informatics (SIG/SI) and the Rob Kling Center for Social Informatics, Indiana University.
1. EunJeong Cheon presented a case study, co-authored with Mohammad Jarrahi, that used an SI framework based on sociomateriality, to examine the ways in which IT consultants’ knowledge practices are mediated by distinct affordances of the ICT assemblages they routinely use in their work and the organizational contexts in which they are used.

2. Wayne Buente discussed ongoing research, co-authored with Luz Quiroga, Tamara Heck and Joe Greene, that focuses on the ways in which resource-poor and homeless people in Honolulu face and struggle with social and cultural barriers in their attempts to make use of ICTs, particularly mobile phones and computers, to access social media.

3. ASEN Ivanov presented a conceptual framework based in organizational informatics that makes use of genre analysis to examine genres of technologically mediated workplace practices, arguing that the framework can serve as a middle-range theory guiding the empirical study of sociotechnical systems in organizations.

4. Mohammad Jarrahi provided an overview of emerging themes shaping the study of ICT in organizations, focusing on the importance of the materiality and agency of the IT artifact, the concept of ICTs as assemblages, the complex interrelationships between ICT and social networks and the importance of information in the conceptualization of ICTs.

Following the paper session was a panel, Social Informatics and Epistemic Cultures, with Caroline Haythornthwaite, Robert Mason, and Howard Rosenbaum. Moderated by Pnina Fichman, and with a lively question and answer period from the audience, the panelists discussed five questions:

1. How do you see your work as bridging epistemic cultures and intellectual communities?

2. What are the social and technological forces that enable and constrain connections between SI and cognitive intellectual communities?

3. What are some of the ways in which we can begin to establish and maintain connections among SI and cognitive epistemic cultures and intellectual communities?

4. What can a social informatics approach tell us about the nature of the boundaries among SI and cognate epistemic communities?

5. What are the challenges and opportunities of engaging in this type of SI work?

   It was clear during the discussion that the SI scholarly community within ASIS&T is healthy and active and that it is worth the time and effort to provide this yearly venue for presenting and discussing SI scholarship and cutting-edge work. The group agreed that there is a need for additional publication venues, for mentoring new entrants into SI and for expanding the reach of the community.


At the end of the symposium, Fichman informed the audience that SIG/SI was proud to have received the 2014 SIG Publication-of-the-Year Award for Social Informatics: Past, Present and Future, edited by Fichman & Rosenbaum. This was an especially apposite award for the SIG because the genesis of the book was in the 2012 SIG/SI symposium. Six papers in the book had been presented at the symposium, and six were authored or co-authored by people who had presented work at previous symposia. This award reaffirmed the strength and vitality of the SIG and the research symposia.

The purpose of the SIG/SI pre-conference research symposium has been and continues to be to provide a supportive and welcoming session where scholars and researchers can present current research and research in progress that investigates the social aspects of information and communication technologies across all areas of ASIS&T. Building on the success of past years, the symposium includes members of many SIGs and...
defines social broadly to include critical and historical approaches as well as contemporary social analysis. It also defines technology broadly to include traditional technologies like paper, state-of-the-art computer systems and mobile and pervasive devices. Submissions may include empirical, critical and theoretical work, as well as richly described practice cases and demonstrations. We look forward to beginning our second decade of symposia and hope that more members of the ASIS&T community will join us.

Full Conference Schedule
Introduction: Pnina Fichman, Indiana University: Reflections on a Decade of SIG/SI Symposia

Papers
EunJeong Cheon and Mohammad Jarrahi, University of North Carolina at Chapel Hill. “The Interplay Between Different Forms of Knowledge and Use of ICTs in Knowledge Practices of Consultants”

Wayne Buente, Luz Quiroga, Tamara Heck and Joe Greene, University of Hawaii at Manoa. “Between Two Publics: Examining the Social Context of ICT Use Among Homeless Individuals in Hawaii”

Asen O. Ivanov, University of Toronto. “Genres of Workplace Practices: Towards a New Socio-Technical Idiom for Organizational Informatics”

Mohammad Jarrahi, University of North Carolina at Chapel Hill. “Social Informatics and Directions for Future Research on Implications of ICTs in Organizations”

Poster
Min Sook Park and Hyejin Park, Florida State University. “Health Information Referencing in Online Communities: Case Study of Breast Cancer Information for Korean Immigrants”

Panel Discussion: Social Informatics and Epistemnic Cultures
Caroline Haythornthwaite, University of British Columbia
Robert Mason, University of Washington
Howard Rosenbaum, Indiana University
Pnina Fichman, Moderator, Indiana University

Best Paper Awards and Presentations


SIG SI Activities at ASIS&T 2014
Saturday, November 1
10th Annual Social Informatics Research Symposium

Sunday, November 2
Panel: Social Informatics and Social Media: Theoretical Reflection (Noriko Hara, Howard Rosenbaum, Pnina Fichman, Ken Fleischmann, Muhammad Jarrahi, and Brian Butler)

Monday, November 3
Panel: Boundary Object in Information Science Research (Isto Huvila, Theresa Anderson, Eva Hourihan Jansen, Pam McKenzie, Lynn Westbrook, and Adam Worrall)

Tuesday, November 4
ASIST Awards Luncheon: SIG Publication-of-the-Year Award: Social Informatics: Past, Present and Future (Fichman & Rosenbaum, eds.)

URLs

SIG/SI: https://asistsigsi.wordpress.com

SIG/SI on Facebook: http://www.facebook.com/groups/134354579994052/?fref=ts

Rob Kling Center for Social Informatics: http://rkcsi.indiana.edu
Alaska Airline’s Kris Kutchera Advocates for STEM Education
by Steve Hardin

EDITOR’S SUMMARY
Kris Kutchera, vice president for information technology for Air Alaska Group, shared her passion for education in a plenary session at the ASIS&T 2014 Annual Meeting. Kutchera learned early that study and preparation lead to competence, and she shares her values through Air Alaska’s commitment to youth and education. Her concentration in STEM subjects led her to information technology, applied to airline operations in a variety of ways from equipment weight reduction for fuel efficiency to passenger kiosks with virtual assistants and biometric finger scanning. Such innovative changes rise from understanding of business drivers and goals. Alaska Airlines trains all personnel in business basics and seeks out those with leadership and technical skills. Kutchera applauded ASIS&T members for promoting education that puts knowledge and information in action in STEM careers.

KEYWORDS
information science
information technology
education
career development
leadership
youth

Steve Hardin is reference/instruction librarian at Cunningham Memorial Library, Indiana State University. He may be reached at Steve.Hardin<at>indstate.edu.
and 185 airplanes. They try to be fuel-efficient; it makes things more cost effective.

Most of Alaska Air’s operations are in North America, but most of its customers like to fly worldwide. So the company has a lot of partners, such as American, Delta and others. It is the only North American legacy air carrier that has not gone through bankruptcy. The goal is to stay independent, and to stay that way, the company must perform.

Everything depends on the employees, she says. In return for great jobs and great pay, the company asks for great employee productivity. If employees reach their goals, everyone gets a bonus worth 5% of their pay. Alaska Air believes that if everyone works together, they work better as a company. She says safety is paramount. Giving back to Alaska Air’s communities is a big part of who they are, with a primary focus on youth and education. The idea is to grow the service through low costs and low fares, producing strong returns for the owners and employees.

Kutchera points out that many things are beyond the company’s control: weather, the economy, fuel prices. Managers focus on how to control the things they can. For example, the company flies a fuel-efficient fleet to make fuel costs more controllable. Information technology is essential for its success. An airline is a vastly complex operation. Everything must come together at the right time for success.

Alaska Air, Kutchera says, was one of the first airlines to enable ticket sales on the web. It was also one of the first to have kiosks where passengers can get their boarding passes. “Ask Jenn” is a virtual assistant created by a student at the University of Washington Information School. Fifteen percent of Alaska Air’s check-ins are now made via its mobile app. Nearly all the company’s airplanes feature Wi-Fi and power. The company has leapfrogged over seatback entertainment to provide streaming, which is a better entertainment option. Connectivity for nearly every customer on the plane opens up a world of possibilities. Soon, passengers will be able to print their bag tags at home, too, so that it will not be necessary for an agent to do it for them. The company is also testing biometric finger scanning for access to its airport lounges. Kutchera says there are other innovations she cannot discuss yet.

The airline is also taking a mobile-only strategy with its employees. Most of the company’s 13,000 employees do not work at desks. More and more, their communication is through mobile devices. In 2010, when iPads were new, an employee showed her how he had downloaded all the company manuals onto it. It showed that if employees could download the information they need to perform their jobs, they would not have to carry heavy flight bags anymore. Now that they do that, the fuel savings from not carrying those bags has paid for the devices. Not too long ago, when a mechanic would be alerted to a pending problem, he or she would print out the manual page needed to address it; if another problem was found, the mechanic would have to go back and print out another page. By putting the manuals on the mobile devices, the company can save 30 minutes per day per mechanic. That’s huge when you are operating on slim margins, she says. By the end of 2015, Alaska Air plans to have devices for all employees. Employees will have information they can share with customers, which means better service.

Kutchera says the definition of innovation is “solving a problem or providing a value in a new way.” There’s nothing about technology. Business leaders need to understand the drivers and strategies for their businesses, then go out and look for ways to move the needles. Lots of times, she says, new technology is the last thing they do. Then they measure the results of these innovations in terms of business results. An airline is a very tangible business, she notes. You can see the results; your neighbors can talk about the results you have just achieved.

All this innovation depends on people. In the last couple of years, the airline has increased its commitment to technology. Her team has grown. People are thinking about the type of talent needed to grow the organization. There are technical jobs (technology, engineers, web designers, analytics and so forth), as well as leadership positions (project management, change management, vendor management, basic people management). Kutchera says it is very hard to find people with these skills, and they make all the difference. Alaska Airlines is training its employees in the basics of that business. All the leaders received leadership training. They know much about how the company works and what is important to the airline and its culture. She said her ideal employees have “CREAPY”
characteristics: Creative, Results-oriented, Excellence, Articulate, Passion, Yes (with an optimistic can-do attitude).

Speaking to the educators in her audience, Kutchera says they are in a tremendous position to provide these people to a world that is looking for them. Talented people are in short supply. She notes that the state of Washington is #1 in the concentration of STEM jobs. Currently more than 25,000 jobs are unfilled in the Puget Sound region; experts predict 59,000 will be unfilled by 2017. Some 130,000 children start school in Washington each year, but only 8,000 (6%) take in-state STEM jobs. There’s a lot of untapped potential. Three-quarters of living wage jobs in the future will require some familiarity with STEM disciplines, she says. That means there is a huge talent gap, but also a huge opportunity gap. This gap contributes to lower living standards.

Minorities are underrepresented. African-Americans, Latinos and Native Americans hold only 10% of the science and engineering jobs, even though they represent 30% of the working population. Among 18-24 year olds, 40% are underrepresented. The good news, she says, is there is a huge amount of untapped potential.

“Pledge it. Prove it. Take flight.” is a program done in one of the hangars to inspire kids to finish their education and then go and do what they want to do. It’s inspiring to see kids pledge to finish their education. She would like to see equal access to opportunity. She would like to see more teachers of color. She also wants to see more organizations like ASIS&T and the iSchool program that work on the interplay between knowledge and information, because that will spread the wealth and get more people involved in this mission. She would really like to see professionals, businesses and others get more involved in getting kids more excited about STEM. She believes our future depends on these things. Kutchera concluded by asking audience members what they can do to inspire and encourage others to pursue STEM careers.
People enjoy the connections made possible by the internet and the many social media applications it offers. But what are these connections doing to our privacy? Carnegie Mellon University professor Alessandro Acquisti addressed this situation during the second plenary session of the ASIS&T 2014 Annual Meeting in Seattle.

The decisions we make have economic consequences, Acquisti stated. When we search something on Google, we are selling some of our information.

We hear how someone hacks into a corporation’s website and compromises customers’ personal data. California was first to enact a breach disclosure law to force companies to reveal these attacks. The first reason for the law was to inform consumers – once there has been a breach, they can take action. But disclosure is costly. To avoid paying these costs, organizations can invest more in security and escape experiencing (and having to disclose) the breaches. Acquisti and his fellow researchers studied this situation and determined that laws that impose mandatory breach disclosures have resulted in a 6% reduction of identity theft.

Acquisti asked his audience to consider a Facebook user wondering whether he should discuss his sexual interests there. Maybe he will find a lover, but maybe his boss will see the posts. Most people do not decide rationally how much to disclose; they often use an emotional approach. A model of privacy decision making should include lessons from the behavioral economics of privacy and account for asymmetric information bounded rationality (we are not stupid, but we are not rational in the traditional economic sense either), as well as the cognitive and behavioral biases which may affect decisions.
In a 2013 study [1] Acquisti and his colleagues sent research assistants to a shopping mall where they offered people who completed a survey a $10 gift card, which they could use anonymously. Then the researchers waited 60 seconds and told participants about a $12 gift card – more valuable, but tracked. Participants were asked which card they would like. The researchers also created a second group in which subjects were given the tracked card first and then offered the untracked card second. Researchers found that in the first situation 52% of participants chose the untracked cards. In the second case only 9% chose the untracked cards. The results bring up a broader issue: How do we protect privacy when our world constantly encourages us to click items and surrender information?

In another study [2], Acquisti and colleagues did experiments in which they tried to manipulate the specific levels of control in transactions. They found that, paradoxically, more control can lead to less privacy. If people feel protected, they start taking more risks with their data.

How useful is transparency? Acquisti noted people do not read privacy policies, and if they do, they may not understand them. He and others did a study of Carnegie Mellon University (CMU) students [3]. They conducted a survey that included sensitive questions such as, “Have you ever cheated in class?” Some subjects were told that other students would see the answers; a second set of subjects was told students and faculty would see the answers. They found more persons answered the more sensitive questions when they thought only students would see their responses. However, this effect was nullified when a mere 15-second delay was inserted between the moment subjects were told who would see their answers and the moment subjects were actually asked to answer the questions. The effects of notices and transparency seem short-lived.

Acquisti has also investigated hiring discrimination via online social networks [4]. In the United States, it is risky for employers to ask interview questions about family status, religious orientation, political orientation or sexual orientation. However, many candidates put that information online. Employers say they use social media to gauge the professionalism of a candidate, although they do not say that they want to see, for example, whether a woman is pregnant. Thus, Acquisti and colleagues set up candidates who had the same professional information, but with vastly different Facebook profiles, and submitted their resumes to actual job openings in the United States. They found not too much difference in terms of callback ratios (that is, invitations to interviews) between gay and straight candidates. But for Muslims vs. Christians, fewer Muslims were being invited for interviews. It is not just what you publically put out about yourself; it is also what can be inferred from what you write.

Facial recognition software is getting better all the time. Acquisti and colleagues compared facial features on a dating site, and using facial recognition software they could identify one tenth of the people on the site [5]. Then they went further. Using photos and information from Facebook, within four attempts, they found the first five digits of 27% of subjects’ Social Security numbers [6].

Advances in data accretion are continuing, Acquisti said. An anonymous face can be matched to a face from social media which can lead to a presumptive name which can lead to other information online which can lead to information that might be sensitive. Whoever is doing this process could overlay the information over the photo of a person. This process does not work quickly or correctly… yet. But algorithms keep getting better and better. In the next 10 or 15 years, inferences will keep getting more accurate. Acquisti asked his audience to consider a future in which we go around with Google glasses and know strangers’ political affiliation and credit scores. Most people find that creepy.

There could be a backlash to all this information acquisition, but companies can become subtler. Acquisti discussed studies he is working on. Imagine that a company can see your Facebook wall and download a picture of your friend. The company could then create a product spokesperson using morphing to combine the features of your friends – because you act more positively toward that spokesperson who reminds you of them.

There is a paradox, Acquisti noted: people want connection, but they also want privacy. What if there is a deep psychological need for privacy and security? He made a conjecture: the need for privacy is as innate as the need for socializing and sharing. Then he made a hypothesis: if that were the case, “visceral” stimuli may elicit (unobservable) privacy concerns and reduce...
(observable) privacy responses. He designed an experiment to investigate the hypothesis. He set up two rooms separated by a two-way mirror. Persons in one room were asked to type their sexual fantasies; some subjects were alone, but some had a guard behind them. The presence of the guard decreases how much a person is willing to write and reveal. In a second experiment, there is a noiseless fan in the room (control) and a confederate goes outside and does not interact in the second room. The decrease still happens. Another experiment checked olfactory stimuli. The researchers put oil of cloves in the control room and added a pheromone at undetectable levels for humans in the second room. They found again a decrease in willingness to reveal personal information when pheromones were added to the clove oil vial. Sensorial cues alerting us of the presence of other persons may affect our willingness to discuss sensitive and personal information by arousing privacy concerns.

Acquisti also outlined an evolutionary conjecture: our responses to threats in the physical world may be sensitive to sensorial stimuli signaling proximity and extraneous presences that we have evolved to use as cues of potential risk. So-called privacy concerns may be evolutionary by-products of those visceral responses. In cyberspace, the sensorial cues we evaluate to detect threats are absent, subdued or manipulated. This absence may help explain the paradoxical online/offline privacy behaviors – why it is so hard to protect privacy online and why the design of privacy and security technologies may need to consider visceral interventions.

Acquisti concluded that much can be inferred by what’s out there about us. People wanting more information can visit www.heinz.cmu.edu/~acquisti/economics-privacy.htm. They can also just Google or Bing economics privacy.

**Resources Mentioned in the Article**

Wow! For a girl raised on a chicken farm in the middle of America’s dairy land, there is a feeling of history re-imagined in receiving this award. In Wisconsin, the dairy cow is important. People eat eggs and poultry, but it is not the focus of the region. So it is with ASIS&T, I think.

Yes, we are interested in the creation and use of databases, web connections and the like, but that is not the main focus of this organization. It once was – there was a strong connection between research and application when I joined ASIS&T in 1976. The luminaries had one foot firmly in each camp. They wanted to know if the application of their theory would work, if it was scalable, if it was transferable. The connection times were slow – moving from the teletype at 150 baud to an acoustic coupler of 300 baud was incredible. Now the connection is in megabits per second, and some complain it is much too slow.

I was fortunate to attend a one-room grade school, sort of like today’s Montessori schools. While I was there, we listened to a radio broadcast about the launch of the Sputnik satellite from Russia. It was thrilling to think that one could actually shoot a man into space and he could survive! The space race was on, and it gave rise to a huge spurt in educational support. The bookmobile, which arrived every two weeks, started bringing two long boxes of books to devour each time, instead of one. The BSCS [Editor’s note: Biological Sciences Curriculum Study] and other programs to get more kids into science were launched as I arrived at high school.

I did not start out to be an information scientist. I actually decided on nine different majors my first semester in college. I took two jobs that year to pay my way through school; one was as a cashier in the student union,
and the other was working in the biology library. I became a botany major and then certified in secondary education. My husband and I moved to New Mexico to continue our studies. I pursued a master’s degree in botany and worked on a NASA contract as an information engineer.

Over the next five years, I abandoned my master’s degree work and became an information scientist. Well, actually I was information director first for a NASA Industrial Applications Center called the Technology Application Center, or TAC, as well as for the National Energy Information Center and its Albuquerque affiliate. I logged more than 20 hours per week on the new online systems in the early 1970s.

The developers of those systems were open to comments and suggestions but also shared how the systems really worked. I was a beta tester of the Lockheed Dialog system, NASA recon, SDC Orbit and the emerging BRS. Roger Summit and Carlos Cuadra were generous with their time and information and launched me in an excellent career direction. I was the only woman on the team and later the only woman in management, so I helped them girl watch on the coffee breaks.

A government contract at a university was not my cup of tea, so in 1978, I started Access Innovations and took five of my staff with me. Jay Ven Eman joined us in December of that year as the first full-time employee, and in 1980, Jay and I bought the other five out. So started the voyage I continue on today. I do not have a particular destination in mind. It is an adventure. Each new project (and we start about three per month) is a new puzzle. Everyone’s data is unique. Some are big projects; others are small.

An adventure it has been too! I have walked through snow drifts in high heels to meet foreign dignitaries. The earthquake in Mexico City in 1985 made our eight-story building into one and a half stories of rubble. When the landlord took the roof off our building in Albuquerque, a cloudburst caused all computers to fill with water, and the rain soaked everything and everyone in the building. Hurricane Kate put four feet of water in the server room in Jamaica. In Russia, we were taken to a lonely dirt field with much fresh digging and a steel shack in the middle. I was sure we were going to be shot and buried, but it was the entrance to the old KGB subway and an excellent keying facility. After my passport was taken in France for “study” while I sat for more than two hours on a stopped express train, I began to call myself an electronic publisher when traveling abroad. Information scientist sounds too much like a spy to border officials.

At this point, I have done over 2000 projects with fascinating clients and a wonderful team of professionals. We have built well over 200 controlled vocabularies from scratch and significantly augmented another 600 or so. To be successful, all of these projects need to be implemented or integrated with a larger whole. As the datasets are enriched with subject and other kinds of metadata, we have to keep an eye on the fact that the only reason to do this work is to improve access to the data. It needs to be coupled with search, retrieval and distribution platforms, new product creation, web portals and other data.

Early on, I observed stratification in the audience at ASIS&T talks. The academics were in the front row, studiously taking notes and discussing the concepts advanced by the speakers. The middle was the management layer, people who needed to listen closely so that they could take home the lessons learned and try to apply them to the challenges they had at hand. In the back of the room, either standing or diving for the aisle seats, were the entrepreneurial people. They did not want to be trapped in the middle and have to listen to the whole thing if it wasn’t interesting to them. They also talked among themselves, having heated whispered discussions in the back about the topic at hand. The datasets were big, the code was compact and the challenges were tough puzzles to sort out. I would leave an ASIS&T meeting with my head nearly bursting with new thoughts and things to try. I can remember Ev Brenner and Gene Garfield having no hesitation about telling speakers exactly what was wrong with their theses (and then how to fix them as well) or arguing with others in the audience (like Tefko Saračević) about the finer points of a presentation. Listening closely, hanging around and not saying much, were those with the badges that said “U.S. Government.” Where do they go for information now? The IA Summit seems to be where the rubber is hitting the road for ASIS&T now. It is a vibrant meeting, brimming with ideas and banter about how to implement those concepts.

ASIS&T has changed, and our focus has narrowed. I note now that we
have become an almost purely academic membership. The talks at the Annual Meeting are often doctoral student showcases. The datasets are small: 5000, 50, even 7 records, really? What can you truly conclude from that? We need to encourage people with big datasets to share how theoretical implementations work. We need to try things out on hundreds of thousands of records to be sure the plan works and is scalable. There are lots of big and free datasets to use; the U.S. Patent and Trademark Office, the National Library of Medicine, the Government Printing Office and other agencies love to have people massage their data. We need to reestablish the partnerships and be sure they are not dependencies.

We cannot assume that all government agencies and corporations are only sources of support. Nor should the organizations supported by tax dollars be in competition with those who pay those taxes. This competition has created an uneven playing field and therefore mistrust. Let those who pay the taxes create the products so that research can be pure and supportive. A couple of years ago I did a study with Kevin Boyack for a client to determine where the field is going. We found that library science is diminishing, information science is shrinking and computer science is growing quickly. We need to change that for the good of the field.

Enough of that. I have a few thank you's to give before my time is up. It is good to continue to give to the Association, as it continues to give to me in more than equal measure. I am a past president of ASIS&T, and I chair the Bulletin Advisory Board, produce (not edit) the Proceedings of the Annual Meeting, maintain the ASIS&T Thesaurus, index the works of ASIS&T, and I created the ASIS&T Digital Library. Working with Dick Hill, Vanessa Foss and Jan Hatzakos is always efficient and the tasks quickly accomplished, and the interaction along the way is fun! Among the ASIS&T community, I have made many friends and had adventures with them, as well as thoughtful technical and financial discussions. In particular, Bonnie Carroll, José Marie Griffiths, Candy Schwartz, Mike Koenig, Nolan Pope, Tom Hogan, Helen Atkins, Sam Hastings and Buzzy Basch come to mind. Business advisors include Steve Arnold, Kate Noerr and Dan Wilde. I am lucky to know them and have them spend time and thoughts with me.

My husband Paul has been a continuous and proud supporter through my entire career. My business partner Jay is a sounding board, encouraging me and pulling me out of my periodic messes reliably. Both of them occasionally roll their eyes at my ideas and antics. My mom taught me that you can have a career and a family, too. My daughters, both accomplished young women, have grown to be good friends and interested in conceptual topics as well as the regular personal matters. I am truly blessed to be surrounded by a professional and interesting team of innovative and creative people with an eye for detail at Access Innovations. To these specifically and to the ASIS&T community I give thanks and appreciation for a wonderful voyage, and I look forward to the next adventure together. I could not have done it without you, and it certainly would not have been as much fun!

Thank you.
Research Award: Interactive Information Retrieval
by Diane Kelly

EDITOR’S SUMMARY
Diane Kelly progressed from having no idea of information science as a field of inquiry to receiving the 2014 ASIS&T Research Award for her outstanding contributions to the field. Through an early library science course, Kelly met information science scholars and soon started her journey researching interactive information retrieval, search behavior, search interfaces and research methods. She became one of the “user study people” when few in the information retrieval community thought about the search process. Kelly appreciates starting her studies before Google’s search box and blinking cursor became pervasive and realizing the wealth of ideas predating Google that are worthy of renewed investigation. She expressed concern that information seeking may become passive receipt of preformed information. In her further research, Kelly hopes to shed more light on the process of search and success metrics.

KEYWORDS
information science
scholars
honors
information seeking
interactive systems
human computer interaction

Diane Kelly is the 2014 recipient of the ASIS&T Research Award for outstanding contributions to research in information science. She is professor at the School of Information and Library Science at the University of North Carolina at Chapel Hill. Her research and teaching interests are interactive information search and retrieval, information search behavior and research methods. She is the recipient of the 2013 British Computer Society’s IRSG Karen Spärck Jones Award, the 2009 ASIS&T/Thomson Reuters Outstanding Information Science Teacher Award and the 2007 SILS Outstanding Teacher of the Year Award. She can be reached at dianek<at>email.unc.edu.

When I started the master’s degree program at what was then the School of Communication, Information and Library Studies at Rutgers University in 1997, unbeknownst to me, I was joining a school that housed some of the most distinguished scholars in information science: Nick Belkin, Paul Kantor, Carol Kuhlthau and Tefko Saracevic, each of whom has received at least one ASIS&T research award. Like many students, I had no idea information science existed as a field of inquiry and practice. I was there for the library science part, which I had also only recently learned was something one could study. After a semester packed with interesting courses, including human information behavior taught by Carol Kuhlthau and online searching taught by Tefko Saracevic, I soon learned that information (and library) science was an area of inquiry with deep intellectual roots, vibrant research traditions and provocative scholars.

Following my initial semester of school, I did what any student interested in information search and human behavior would do next: I volunteered to join Nick Belkin’s research team. I spent the next six years working on his team earning a master’s degree and a Ph.D. and learning about things I never knew existed, including search behavior, the information search process, interface design, information retrieval, TREC (Text REtrieval Conference) and, of course, ASIS&T. I took two courses about information retrieval: one taught by Paul Kantor and the other by Nick Belkin, which solidified my interests in this area, particularly in interactive information retrieval. Through these courses and others, I gained a foundation in the history and evolution of information science. By apprenticing myself to both Nick and Paul, I gained a foundation in how to conduct research. I will always be grateful to both of them for their generosity, guidance and support.
Since graduating from Rutgers, I have spent the last 11 years at the School of Information and Library Science at the University of North Carolina, where I have received strong support from two other ASIS&T standouts: Gary Marchionini and Barbara Wildemuth, along with a cadre of excellent students, many of whom are already blazing their own ASIS&T paths. I have had an active research agenda focused on interactive information retrieval, search behavior, search interfaces and research methods. This agenda has been greatly supported by many students who have worked alongside me. Most of the studies we have conducted have been controlled, laboratory experiments and have involved a variety of data collection methods including logging, questionnaires, psychometric scales, observation, stimulated recall, structured and semi-structured interviews and most recently, physiological signals. We have studied hundreds of people, including intelligence analysts, undergraduate and graduate students, faculty and staff and members of the community at local public libraries. For those interested in a list of my publications, please visit http://ils.unc.edu/~dianek/research.html.

Our studies include a 14-week naturalistic, longitudinal study of the validity and reliability of using implicit feedback as relevance indicators and of how contextual factors, such as search task, impact this relationship [1] [2]; a monograph about methods for evaluating interactive information systems [3]; several studies describing method variance in interactive systems research [4] [5]; a systematic review of interactive information retrieval evaluation studies documenting 40 years of research [6]; studies of query suggestions [7]; an examination of the impact of threshold priming on relevance assessments [8]; a study of the effects of cognitive ability on search [9]; and most recently, a study investigating stress and workload during search[10].

“User study people,” as we are called, at least in the information retrieval community, are the minority, but our numbers continue to grow. This perspective is critical, and it has been exciting to watch its importance increase during the past 18 years, in part because of all the hard work of information and library scientists, who have been paying attention to users all along.

When I first started conducting research about interactive search systems in 1998, information search was a foreign concept to most people. When we tested our search systems, we either recruited librarians or library science students so that we could assume our research participants understood something about search, or we developed extensive tutorials to train people to use our systems. Collecting data about participants’ search and computer experiences and majors was also necessary and usually provided some insight about any differences we observed in use of the systems. And it took ages to get a stable, workable system up and running! The most exciting things about the last 18 years are how much the world has changed with respect to information search and how much easier it is to do information search research.

I am grateful that when I started studying information search it was not a common activity. Contemporary search engines like Google did not anchor my thinking about what was possible. My thinking was anchored by what were, at the time, radical ways to conceptualize information searchers (from Belkin [11]), the information search process (from Oddy [12]) and user interfaces (from Hearst [13]). The perspective I gained by watching this area grow and change has been invaluable. It allows me to see beyond Google because I saw before it. It taught me to look to the literature for inspiration instead of staring at a search box and blinking cursor. So much research today lacks spark because it is often heavily anchored by contemporary practice and trends. It lacks depth because it is disconnected from past work.

I will (almost) spare the cliché that those who do not know history are doomed to repeat it, in part because I believe some of our history is worth repeating, especially when it comes to research. Papers from the pre-Google era contain many amazing and provocative ideas, some of which were never fully investigated because of technological constraints and some of which form the basis of modern search engines. For example, Maron and Kuhns [14] proposed the idea that searchers’ queries could be used as sources of index terms for documents, such that documents that had been retrieved in response to a particular searcher’s query and found relevant by the searcher could then be associated more strongly with that query (sound familiar?). But the real purpose of knowing the history of a field is that it engenders a certain amount of humility, which is necessary to become a true scholar of anything.
One only has to open a book such as Walker’s 1971 edited volume [15] documenting one of the first workshops about interactive information retrieval, *Interactive Bibliographic Search: The User/Computer Interface*, which contains citations to hundreds of studies, to appreciate the depth of our field and one’s place in it. Many people come to this field with the ill-formed notion that information science is somehow related to the information technology boom of the 1990s and that search interfaces and retrieval systems are contemporary inventions. Today, information science means different things to different people and does many different things for many different people. As educators, we have a responsibility to make sure students at all levels, and people more generally, understand the history of information science and importantly, the central role libraries and librarians have played in its development.

When I look back on some of the earlier search interfaces I developed and tested as a student, I cringe. They were so complicated and dense compared to today’s standards, but they expected more from searchers and enabled searchers to go further, to use different search tactics, to interact with the information in different ways. In the past, the research literature contained an abundance of novel and innovative search user interfaces, but one has to look hard to find examples today as we have converged on one standard model, which has been optimized for a small number of search tasks. Other types of search tasks and other aspects of the information-seeking process have been neglected. How might we design tools that support information seeking and use, rather than just information search? How might we design tools that support interaction and engagement with information across a range of tasks and sessions? How might we design tools to help people dive deeper into the search results, discover underused information and create more diverse solutions to their information problems?

Through teaching students and studying the behaviors of research participants, I have noticed that people often have an inflated sense of their own search skills and the quality and completeness of the information they find (and what they can find), and overestimate what they have learned during the search episode. Have contemporary search interfaces transformed searchers into *passive information receivers* rather than *active information seekers*? For example, searchers do not have to create their own queries anymore, and soon they may not even have to think of their own information needs. Are search systems nudging us towards a homogenization of information needs? Are we given adequate control over search systems? Does an imbalance of control foster an illusion of understanding? Does this imbalance have negative consequences for the sense-making process? Many of these questions are actually not new, as many information scientists in the 1990s, including Belkin [16], raised them when contemplating the possibilities of artificial intelligence.

Researchers document success by showing reductions in time and amount of interaction and increased user satisfaction, but do these measures really allow researchers to understand the impact of search? Can people be satisfied with things that are not necessarily good for them? How can we measure the success of an entire search session, or a search that takes place over multiple points in time? These are questions I look forward to seeing addressed during the next 20 years of information search research.

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Resources on next page
Resources Mentioned in the Article


Data citation is rapidly emerging as a key practice supporting data access, sharing and reuse, as well as sound and reproducible scholarship. Consensus data citation principles, articulated through the Joint Declaration of Data Citation Principles [3], represent an advance in the state of the practice and a new consensus on citation.

Lowering the barrier to research data discovery and use, coupled with an increased ability to link data with publications, could enable new forms of scholarly publishing, promote interdisciplinary research, strengthen the linkage between policy and science and lower the costs of replicating and extending previous research. For this reason, the submission requirements for Science — one of the most cited, read and respected journals in the sciences — stipulate that “all data necessary to understand, assess and extend the conclusions of the manuscript must be available to any reader of Science” and that “citations to unpublished data [emphasis added] and personal communications cannot be used to support claims in a published paper” [4]. Too often, however, this proscription and others like it have been honored only in the breach. Few research articles provide access to the data on which they are based, nor specific citations to data on which the findings rely, nor protocols, algorithms, code or other technology necessary to reproduce, reuse or extend results.

The practice of bibliographic citation to supporting materials was formalized in scholarly publishing more than a century ago. In this tradition, a “bibliographic citation” refers to a formal, structured reference to another scholarly work. In most fields, citations are made in the body of the work. Full references typically appear at the end of the main text, providing more detailed bibliographic information for each work referenced. Following the establishment of the first scientific digital data archives in the late 1960s, bibliographic standards for data were developed and refined over the next decades but never widely used in practice.

The theory and practice of data citation have advanced considerably over the last five years, and these parallel efforts led to concern for a unified approach.

An Introduction to the Joint Principles for Data Citation
by Micah Altman, Christine Borgman, Mercè Crosas and Maryann Martone

NOTE: This article summarizes and extends a longer report published as [1]. Contributors are listed in alphabetical order. We describe contributions to the paper using a standard taxonomy described in [2]. Micah Altman and Mercè Crosas were the lead authors, taking equal responsibility for revisions and authoring the first draft of the manuscript from which this is derived. All authors contributed to the conception of the Force 11 principles discussed, to the methodology, to the project administration and to the writing through critical review and commentary.

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The joint principles on data citation represent a new phase of activity that focuses on principled integration with the scholarly research and publishing ecosystem and a broad consensus on data citation practices. What has emerged in the publishing and research communities is agreement that citation is needed to support attribution and verification, recognition that citations must support both human and machine clients, maturity of robust persistent identifiers, and the desire to integrate data citation in standardized ways within publications, catalogs, tool chains and larger systems of attribution.

In the summer of 2013, the Data Citation Synthesis Group was formed to unify various parallel recommendations. Meeting weekly from July to November of 2013, the group thoroughly deconstructed previous data citation principles and produced a synthesis set that included the input of more than 25 organizations. The group also met in September 2013 as part of the Research Data Alliance conference, in two half days of public workshop. As a result, in November 2013, the proposed *Joint Declaration of Data Citation Principles* [3] was released to the public for open comment and then finalized at the end of February 2014. The joint principles reference and synthesize principles and recommendations from earlier work: a report by the CODATA/ICTSI Task Force on Data Citation [5] and a workshop held by the National Research Council [6] as well as standards previously proposed by Altman & King [7] and Ball & Duke [8].

The scope of the principles is solely to provide data citation recommendations, not to include detailed specifications for implementation or to focus on technologies or tools or research data repositories. The principles should extend to all disciplines and all types of data. As will be seen below, the *Joint Declaration of Data Citation Principles* reflects various efforts and presents a broad convergence on eight core principles:

1. **Importance.** Data should be considered legitimate, citable products of research. Data citations should be accorded the same importance in the scholarly record as citations of other research objects, such as publications.

2. **Credit and Attribution.** Data citations should facilitate giving scholarly credit and normative and legal attribution to all contributors to the data, recognizing that a single style or mechanism of attribution may not be applicable to all data.

3. **Evidence.** In scholarly literature, whenever and wherever a claim relies upon data, the corresponding data should be cited.

4. **Unique Identification.** A data citation should include a persistent method for identification that is machine actionable, globally unique and widely used by a community.

5. **Access.** Data citations should facilitate access to the data themselves and to such associated metadata, documentation, code and other materials as are necessary for both humans and machines to make informed use of the referenced data.

6. **Persistence.** Unique identifiers, and metadata describing the data and its disposition, should persist – even beyond the lifespan of the data they describe.

7. **Specificity and Verifiability.** Data citations should facilitate identification of, access to and verification of the specific data that support a claim. Citations or citation metadata should include information about provenance and fixity sufficient to facilitate verifying that the specific time slice, version and/or granular portion of data retrieved subsequently is the same as was originally cited.

<table>
<thead>
<tr>
<th>Citation Principles</th>
<th>reflects various efforts and presents a broad convergence on eight core principles:</th>
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<tbody>
<tr>
<td><strong>1. Importance.</strong></td>
<td>Data should be considered legitimate, citable products of research. Data citations should be accorded the same importance in the scholarly record as citations of other research objects, such as publications.</td>
</tr>
<tr>
<td><strong>2. Credit and Attribution.</strong></td>
<td>Data citations should facilitate giving scholarly credit and normative and legal attribution to all contributors to the data, recognizing that a single style or mechanism of attribution may not be applicable to all data.</td>
</tr>
<tr>
<td><strong>3. Evidence.</strong></td>
<td>In scholarly literature, whenever and wherever a claim relies upon data, the corresponding data should be cited.</td>
</tr>
<tr>
<td><strong>4. Unique Identification.</strong></td>
<td>A data citation should include a persistent method for identification that is machine actionable, globally unique and widely used by a community.</td>
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8. **Interoperability and flexibility.** Data citation methods should be sufficiently flexible to accommodate the variant practices among communities but should not differ so much that they compromise interoperability of data citation practices across communities.

The Force 11 website [9] currently hosts the data citation principles and includes examples, detailed documentation and references to the standards and reports they incorporate.

Less than a month after the principles were finalized, they were endorsed officially by 30 organizations (now 85, as of late 2014), including many major publishers and data archives.

Several data repositories and systems are already compliant, or close to being compliant, with these principles (for example, Dataverse, DataDryad, DataCite). We anticipate that the impact of the unified, widely disseminated *Joint Declaration of Data Citation Principles* will be substantial and will change current publication workflows, create new data citation technologies, define new metrics for scholarly impact and recognition and, more importantly, provide persistent access to the data supporting scientific results to validate and extend previous scientific work. The principles will facilitate interoperability across existing and new implementations [10] and will help guide enhancements and new versions of the current implementations.

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**Resources Mentioned in the Article**


