SPECIAL SECTION

Information Policy

10] Information Policy: Introduction
    by Brandi Loveday-Chesley, guest editor of special section

12] Questioning Trust in the Era of Big (and Small) Data
    by Kristene Unsworth

15] What About Reader Privacy?
    by Brandi Loveday-Chesley

    by Karl-Rainer Blumenthal

    Cyber Infrastructure
    by Christine Lino

29] Addressing eHealth Literacy and the Digital Divide: Access, Affordability
    and Awareness
    by Grace Begany

FEATURES

33] Buying and Selling Information
    by Michael L. Gruenberg

38] The ASIS&T Oral History Program: An Interim Report
    by Robert V. Williams
With a special section, two columns and two feature articles, this issue is more than usually diverse. The special section from ASIS&T Special Interest Group/Information Policy (SIG/IFP), edited by Brandi Loveday-Chesley, focuses on trust, security and privacy as well as issues concerning access to broadband communications. The concern with trust is particularly timely since that topic will be explored at a SIG/IFP workshop on October 31, 2014, at the 2014 Annual Meeting. Brandi provides an overview of the section in her Introduction and is the author of one of the section’s articles. In addition, Christine Lino, Grace Begany, Karl Rainer-Blumenthal and Christine Unsworth contributed.

In one of our feature articles, Robert Williams provides a detailed and comprehensive discussion of the ASIS&T Oral History Project, including its history, status and accomplishments to-date. In the other feature article, Michael Gruenberg discusses buying and selling information products in the library context, covering some of the advice from his recent book, Buying and Selling Information: A Guide for Information Professionals and Salespeople to Build Mutual Success.

With the return of our occasional Meeting Review column, Yuelin Li & Diane Sonnenwald report on the 12th Conference on Library and Information Science Across the Taiwan Straits. This year’s biennial event was built around the theme, In the Context of Big Data and Cloud Computing: A Multi-Dimensional LIS. With funding provided by ASIS&T, keynote speaker Diane H. Sonnenwald discussed visioning to explore the impact of future technologies, and the Association also sponsored a lunch and presented information on the benefits of ASIS&T membership. A short report on ASIS&T and ASIS&T-member participation at the LIDA (Libraries in the Digital Age) conference in Croatia in June and the associated European Chapter meeting is also covered in Inside ASIS&T.

In this issue’s RDAP Review, Sara Mannheimer discusses the strategy of the Montana State University Library to promote its data management services on campus.

And finally, in the President’s Page, Harry Bruce reports on the recent Board retreat and plans for a strategic planning exercise.

I look forward to seeing you soon in Seattle.
In July, it was my pleasure to host a retreat for ASIS&T Board members at the University of Washington iSchool. Seattle summer weather is glorious, but your Board gave up two days in sunny Seattle to hear reports from our hard-working committees and task forces and to spend time discussing a number of issues important to the future of our great association. I would like to use this column to describe briefly the Board’s deliberation and discussion of several selected topics, including the ASIS&T Annual Meeting, membership, ASIS&T website redesign and strategic planning.

The ASIS&T Annual Meeting is the premier event hosted by our association. It has a long history of success measured in terms of the number of participants; the number of submissions; the quality of accepted papers, posters, panels and workshops; and the energy, goodwill and collegiality of member engagement at the meeting. It is an event that is welcoming to new members, nurturing and supporting to aspiring leaders and enriching to young scholars and professionals. But now is also a time of significant change – how we view the role of professional and scientific association conferences is being transformed by innovations in communication and information technology. We are inclined to question the logistics and relevance of the face-to-face meeting of a worldwide community of members in a single, selected location.

With this in mind, the ASIS&T Board framed its discussion around the open question: What is our vision for the Annual Meeting? Board members talked about how we might achieve the right balance in terms of acceptance rate and quality of submissions. We want our Annual Meeting to be a highly respected venue for the presentation and publication of...
groundbreaking research and innovative professional practice. We discussed how we might improve the quality and helpfulness of reviewing and the value of a successful submission to an academic member – particularly members on a track towards tenure. And we spent some time talking about how our Annual Meeting can attract increased levels of participation and engagement from professional members of ASIS&T and better reflect their needs and interests. These preliminary discussions will be followed up within a framework of strategic planning (described later in this column).

Heather Pfeiffer presented a detailed report to the Board on the activities of the ASIS&T Membership Committee chaired by Bill Edgar. Bill and I met over the telephone a week or so before the Board retreat and went over the preliminary data that the committee had collected in its quest to discover how we might better attract, recruit and maintain our membership in various categories. Heather’s report was followed by much discussion among Board members. Membership Committee data reflected a concern I have already expressed about the need for our Association to better meet the needs of professional members. In light of this and grounded by our previous discussion of the Annual Meeting, the Board resolved that the ASIS&T Annual Meeting in St. Louis in 2015 would include a track which will likely be called “Applied Information Science and Technology.” This track will have a call for participation aimed particularly at ASIS&T professional members and be assigned to reviewers with interest and expertise in the information professions. President-elect Sandy Hirsh has appointed a fabulous chair for the 2015 Annual Meeting (Lisa Given, professor of information studies at Charles Sturt University). Professor Given is a member of the Institute for Professional Practice, Learning and Education at CSU and is very enthusiastic about planning a track for the 2015 Annual Meeting that will broaden opportunities for contributions to the ASIS&T Annual Meeting by professional members.

Our membership discussion was also informed by a detailed report from our hard-working International Relations Committee (IRC). The IRC drew the Board’s attention to the fact that our premier journal, JASIST, receives and publishes many submissions from information researchers and professionals around the world who are not currently ASIS&T members. The committee recommends that a letter be sent to successful JASIST authors who are currently not members offering a one-time discount on ASIS&T membership to celebrate their publication in our journal. These invitations have since gone out to non-member authors published in JASIST during the past three years. We will continue this offer into the near future and evaluate its efficacy in attracting new members.

On the second day of the Board retreat we received a report from Kevin Hoffman of Seven Heads Design. Seven Heads Design has been contracted by the Board to develop and implement a redesign of the ASIS&T website. Kevin described the desired voice and tone of the redesigned website – a move from its current exhaustive form to one that identifies the key points that need to be conveyed to the website audience. The Board was shown a preview of various design elements. The timeline for brand design and graphic design was verified. The new ASIS&T website will be launched at the Annual Meeting in Seattle on Sunday, November 2, after welcoming remarks by Jens-Erik Mai, the Annual Meeting program chair, and myself, and immediately prior to the keynote presentation by Kris Kutchera from Alaska Air. I do hope that our members will be in attendance at the plenary and will enjoy seeing and celebrating a fresh new look and feel for the ASIS&T website.

In her president-elect’s report at the Board retreat, Sandy Hirsh introduced the need for ASIS&T to have a strategic plan – a vision for the future of our Association plus a set of goals and guidelines for achieving this outcome. Many of the activities of the Board and of committees and task forces are tied to the vision of individual presidents and their respective goals for their term in office. Sandy rightly stated at the Board retreat that ASIS&T is long overdue for a more comprehensive and cumulative approach to serving its members and being the premier scientific
and professional association for the information sciences. With Sandy acting as facilitator, the Board engaged in a brainstorming session to identify the strengths, weaknesses, opportunities and threats to ASIS&T (SWOT analysis). Sandy then formed a task force of Board members to follow up on the analysis after the retreat and plan for next steps in a strategic planning process which will begin at the Annual Meeting in Seattle and be conducted across the term of Sandy’s presidency. The resulting strategic plan will be unveiled at the ASIS&T Annual Meeting in St Louis in 2015. I am impressed by and grateful for Sandy’s outstanding leadership of this important process of envisioning and planning for the future of our Association.

As you can see, your Board has been busy and remains dedicated to the stewardship of ASIS&T. I want to commend all Board members for their outstanding service and their ongoing commitment to our Association. All Board members give freely of their leadership, expertise, passion and time to make our Association more responsive to the needs of our members. They deserve our respect and appreciation. I know that the timing of this column marks the end of summer activities for many of you and the beginning of a new academic or professional year. I send you all my best wishes for a productive year ahead and look forward to greeting you in Seattle in November.
Connecting Collections, Cultures and Communities, the upcoming 77th ASIS&T Annual Meeting, is a celebration of the breadth of information science, its historical roots, its user-centeredness and its unique aim of bringing people together around ideas, thoughts and the exchange of information and knowledge. From October 31 to November 5 in Seattle, Washington, ASIS&T will illuminate the theme through keynote presentations, panel discussions, scholarly papers, workshops, social events and governance activities all designed to pull together the disparate people and ideas of information science.

Jens-Erik Mai, conference chair, and his committees of planners and reviewers have sculpted a meeting certain to appeal to all information scientists and practitioners. Beginning with the pre-conference workshops and seminars that offer greater depth into specific topics and continuing through the two-and-a-half day technical program, attendees will find it difficult to narrow the choices of the sessions to experience. But in the hallways and at the social events, everyone will catch up on things they missed and share what they learned.

As always, among the highlights of the Annual Meeting are the keynote sessions headlined by leaders in the information field. This year, two great speakers will address plenary crowds. The first, at 1:00 p.m., Sunday, is Kris Kutchera, vice president, information technology and strategy management for Alaska Air Group. She is highly regarded for her leadership at Alaska Airlines in the application of technology to increase efficiency and productivity while improving customer service and convenience.

At 10:30 a.m., Monday, Alessandro Acquisti, associate professor of information systems and public policy at Heinz College, Carnegie Mellon University, is likely to touch upon his research into the behavioral economics of privacy and privacy in online social networks.

Calling All Students

For the fifth consecutive year, the Student Design Competition provides an opportunity for students to network with colleagues from around the world while developing plans for a creative and innovative design in response to a specific challenge received on site. In order to participate, students must attend the organizing session on Sunday, November 2, 8:00 p.m. At that time, students will form their design teams, review the rules and procedures and receive the design challenge. Just over 48 hours later, the teams will present their proposals to the jury and an audience of conference attendees. Members of the winning team, as selected by the jury, will receive free registration for the 2015 ASIS&T Annual Meeting. Sanda Erdelez and Paul Marty are the organizers of the design competition.
Path to Leadership

Another excellent networking opportunity for students and professional members is the ASIS&T Leadership Development Program, organized by the ASIS&T Leadership Committee. On Sunday, November 2, beginning at 5:30 p.m., join other members looking to assume leadership roles in the years ahead and learn some of the ways that leadership is developed and recognized in the Association. Four panelists will discuss their own personal paths to ASIS&T leadership. In particular, they will share their motivations and experiences in pursuing leadership roles in chapters, special interest groups, national programming and Association committees. The Leadership Committee is charged with identifying and recruiting individuals to be future leaders; designing, developing and implementing training and developments activities to enhance skills of current and future leaders; and identifying or developing logical development paths. ASIS&T Leadership Committee chair, Iris Xie, organized this year’s program. Panelists are Samantha Hastings, Sarah A. Buchanan, Fidelia Ibekwe-SanJuan and Anne Pepitone. There is no charge to attend, but registration is required.

Registration and Other Meeting Information

The early registration period – with lower rates – has already ended, but registration will continue throughout the meeting. All pre-conference workshops and the Leadership Development Program require advance registration. Please visit the ASIS&T website – www.asist.org – for full details. Then book your flight and hotel room, and we’ll see you in Seattle!

Newly Elected Board Members to Take Seats in Seattle

Each year at the ASIS&T Annual Meeting, a new administrative year begins, and the first order of business is the installation of new officers and directors. Following polling during the summer, three new members were elected to the board for three-year terms. Those elected are Nadia Caidi, president-elect, and Jamshid Beheshti and Fidelia Ibekwe-SanJuan as directors-at-large.

President-elect

Nadia Caidi is associate professor at the Faculty of Information, University of Toronto. Trained in linguistics and communication in France, she then went to University of California at Los Angeles for her MLIS and Ph.D. Her research interests focus on information policy and community informatics. In her position statement for the office of president-elect, Nadia said that she will challenge the ASIS&T membership to lend its expertise and sensibilities to the task of (re)positioning ASIS&T as a leading, dynamic and highly relevant organization. Throughout her statement, collaboration is a key theme – collaborative information practices; forging alliances and partnerships with educational organizations; keeping members intellectually engaged across boundaries; and seeking global relationships.

Nadia will serve as president-elect for one year before assuming the presidency next year in St. Louis.
Directors-at-Large

Jamshid Beheshti holds degrees in mining technology, history and library and information science from a variety of Canadian institutions. He currently teaches in the School of Information Studies at McGill University. In his position statement, Jamshid says his focus will be attempt to expand ASIS&T’s presence and increase membership throughout the United States, Canada and the rest of the world. He would use technology in a number of ways to accomplish this goal: social media forums to solicit opinions and views of international colleagues in industry and academia; free open access publication to augment the existing publication program; and a MOOC on information science to expand the base of ASIS&T among various disciplines.

Fidelia Ibekwe-SanJuan, professor of information and communication sciences at the Jean Moulin University in Lyon, France, earned degrees in French literature before switching her academic interests to information science. With a Ph.D. from Stendhal University in France, Fidelia’s research interests currently center on history and foundations of information and communication studies. In her position statement, Fidelia notes the vibrancy and inclusiveness of ASIS&T and pledges to strengthen its current international course by linking with more global practitioners, motivating young scholars and ensuring that ASIS&T remains at the forefront of societal challenges wrought by our info-centric world.

Rotating Off the Board

As new members join the ASIS&T Board of Directors and the president-elect assumes the presidency, members whose terms are complete rotate off or into new positions. At the conclusion of the Annual Meeting in Seattle, Harry Bruce, who has served as president this year, will shift into the role of immediate past president. Sandra Hirsh, president-elect, will move into the presidency, and Andrew Dillon, immediate past president, will leave the Board.

With the election of two new directors-at-large, Jens-Erik Mai and Diane Rasmussen Pennington will have completed their three-year terms and will leave the Board.

The International Calendar of Information Science Conferences (ICISC) is available through ASIS&T (Association for Information Science & Technology). Available in multiple languages. https://www.asis.org/Conferences/calendar/

News About ASIS&T Members

Dania Bilal, professor in the iSchool of Information Sciences at University of Tennessee, and Jacek Gwizdka, assistant professor in the School of Information and co-director of the Information eXperience Lab at University of Texas at Austin, have received a $41,363 Google Research Award. Their project, titled Child-friendly Search Engine Results Pages (SERPs): Towards Better Understanding of Google Search Results Readability by Children, will investigate how children read and assess the reading levels of Google’s search results pages (SERPs). One of the goals of this project is to modify Google’s Reading Level metric. Google Research Awards are unrestricted gifts to support the work of faculty at universities around the world.

Blaise Cronin, currently the James H. Rudy professor emeritus of information science at Indiana University and an honorary professor at City University, London, is one of two 2014 winners of the Jason Farradane Award given by the UK eInformation Group to an individual or group of people in recognition of outstanding work in the information profession. Blaise, editor-in-chief of the Journal of the Association for Information Science and Technology (JASIST), was cited for his 30 years of innovative research and teaching, coupled with his demonstrated leadership in the fields of information science and information management.
European Chapter and European Student Chapter Support for the ASIS&T 2016 Meeting
by Emil Levine and Jonathan Levitt

The European Chapter of ASIS&T and ASIS&T SIG/MET (Special Interest Group/Metrics) jointly endorsed the Libraries in the Digital Age conference, *Assessing Libraries and Library Users and Use*, June 16-20, 2014, in Zadar, Croatia. Associated with the chapter endorsement, the current chair of the European Chapter, Jonathan Levitt, introduced the presenters at the doctoral forum.

Several prominent members of ASIS&T contributed to the conference. Gary Marchionini, past president, was the guest of honor, and Blaise Cronin, editor of *JASIST*, was the program chair of the altmetrics part of the conference. Tefko Saracevic was the external co-director, and Donald Case was a keynote speaker. Both are also past presidents of ASIS&T. The conference proceedings are available at http://ozk.unizd.hr/proceedings/index.php/lida.

Ten chapter members attended a joint meeting of the European chapter and the European student chapter at LIDA. At this meeting the following recommendations were made in support of the ASIS&T Annual Meeting that will be held in Europe in 2016:

1. Offer translation services both before and during the conference.
2. Recommend European journals and organizational websites on which to advertise and promote the conference. Provide translation services (as above) for this promotion, as required.
3. Submit a panel proposal on IS organizations in Europe. Invite representatives of these organizations to participate and explain their structure, membership and purpose.
4. Submit a panel proposal on the EU equivalent of the National Science Foundation related to funding for LIS science research in Europe.
5. Apply for funding for workshop(s) to be determined.
6. Appoint a committee/working group to provide this assistance and other as required.

Regarding the last point, in spring 2014 Jonathan Levitt appointed an ASIS&T 2016 group.

New ASIS&T Blog Online

The official blog of the Association for Information Science and Technology is now online at www.asis.org/SocialMedia/?p=66. Readers of all orientations – practitioners, scholars, students or anyone else – are encouraged to contribute posts on anything related to information science to the ASIS&T blog. If you are interested in writing a post, please contact Diane Rasmussen Pennington, ASIS&T’s social media manager, at diane@asis.org. In the meantime, visit the blog today for posts on *Defining Musical Similarity; How Do You Solve a Problem Like Solutionism?*; and interesting news about the ASIS&T web redesign process currently underway.
Information Policy: Introduction
by Brandi Loveday-Chesley, guest editor of special section

EDITOR’S SUMMARY
The ASIS&T Special Interest Group/Information Policy (SIG/IFP) analyzes local, national and global developments affecting multiple aspects of information access and use. This issue of the Bulletin explores trust, security and privacy, SIG/IFP’s focus for the Association’s 2014 Annual Meeting. The controversial and timely topic of net neutrality is examined from a historical perspective. Federal efforts in the area of cybersecurity and the practical implications of its failures are detailed. The importance of digital reader privacy is raised, comparing legal privacy assurances and gaps for brick and mortar libraries with security of readers’ personal data in the cloud. A look at eHealth literacy reveals how the digital divide negatively affects health for various populations.

KEYWORDS
information policy
data security
access to resources
intellectual freedom
personal information
privacy
literacy
trust
digital divide

This issue’s special section is brought to you by SIG/IFP, the ASIS&T special interest group dedicated to sharing developments in information policy on the state, federal and global fronts.

In one piece SIG/IFP’s current chair, Dr. Kristene Unsworth, showcases a pre-conference workshop to be held in Seattle before the ASIS&T Annual Meeting later this month. That session will address the issues of trust, security and privacy in the age of big (and little) data and posit some very important questions for researchers and practitioners alike to consider in the future regarding information policy. The section also includes a piece on digital reader privacy originally written as a research piece for a New York State assembly member in an intern’s effort to influence and encourage change in New York’s protection of readers now that technology has so heavily impacted security and privacy. The author of the digital reader piece, Brandi Loveday-Chesley, gives a brief overview of the issues and the protections afforded brick and mortar libraries with how the law does not extend to e-readers such as Kindle and Nook, to name only two such devices.

Karl-Rainer Blumental, an MSLIS candidate from Drexel University, shares his research on net neutrality and the FCC. This topic is almost constantly in the news on technical and computer information websites such as ArsTechnica and is very much in the forefront for lawyers and policy analysts at the Electronic Frontier Foundation as net neutrality affects every aspect of our society and our ability to share information without censorship. Christine Lino is also a graduate student at Drexel University. Christine’s contribution examines and details various failures in the infrastructure of the United States federal government regarding cybersecurity and the government’s inability to implement even the most basic of security measures,
which puts every citizen at risk. Last but not least, we include an article by Grace Begany, an information science Ph.D. student in the College of Computing & Information, University at Albany - State University of New York, on the issue of eHealth literacy and the digital divide. Grace explores how the digital divide influences access to information on health issues via the Internet for various populations and explores what can be done to remedy this deficiency in our society.

We hope you enjoy this special section and feel comfortable enough to reach out to SIG/IFP in the future for opportunities to co-sponsor panels, workshops and webinars on information policy and technology policy topics.
Questioning Trust in the Era of Big (and Small) Data
by Kristene Unsworth

The issues covered by information policies are far-reaching and in many cases touch on our individual relationships with government agencies and corporate entities. In the June/July 2014 edition of the Bulletin I consolidated a number of accepted definitions of information policy and called for the need to articulate the importance of data as the fundamental part of information [1]. This view follows the standard understanding of the progression from data to information and finally knowledge.

It is no longer the fact that we are in control of our personal information, let alone the many data points that we leave throughout our daily activities. Of course, some organizations like Target, Amazon or Google (to name only a few) provide users with documentation that lays out what the business will or will not do with the information they collect when any of us visit their pages or in some cases walk in their doors. Such terms of service, privacy policies and statements related to third-party sharing are all attempts made by organizations to cover the legal terrain by posting policies for users to read and acknowledge their agreement.

The fact that few users actually read these documents is not the point. From a legal standpoint the documents exist and users have implicitly through use of the site or explicitly through indicating agreement to the policy read the content and agreed to what is laid forth. Our signature or mark on the form binds us to these agreements. Yet this is old news. We know that companies follow our shopping patterns and trace our actions online. Trust may be a value that we hold in our relationships with others, but it is also held alongside other values. In some cases it may be safe to say we trust that our personal information will be used in a variety of ways in spite of established privacy policies and guidelines.

Information policy conversations about privacy, security, personally
Identifiable information, net neutrality and global information flows come back to the need for more than laws, rules and regulations. Whether we can trust others with our information is at the crux of the debates. An oft-cited piece by Helen Nissenbaum, *Securing Trust Online: Wisdom or Oxymoron*, begins with the statement, “the way we stipulate the conditions of the online world may be decisive for whether or not trust is achieved.” [2, p. 635] Though written over a decade ago the statement is still timely. From eHealth to the privacy considerations of digital readers, information policy/trust issues hold a prominent place in social and political arenas. In many cases technologies are used, and the rules and regulations governing them are pushed aside to be dealt with when and if a problem arises. Often we are playing a game of catch up crafting legislation related to information technology.

In many cases, privacy is the main concern voiced in relation to policies that govern the collection, retention and use of information, but, ultimately, these issues come down to whether we can trust the government agency or corporate entity with our personal information. Bruce Schneier quotes the philosopher Sissela Bok in his book *Liars and Outliers*: “Whatever matters to human beings, trust is the atmosphere in which it thrives.” [3, p. 7] Trust is also part of the bedrock of society and a necessary element in the contract between individuals and the government. Members of the Special Interest Groups/Information Policy (SIG/IFP) and International Information Issues (SIG/III) are eager to address these types of relationships between trust, society and information. To this end, the first SIG/IFP-SIG/III annual workshop in information policy issues, “Trust in the Age of Data (Big and Small),” will be held on October 31, 2014, at the ASIS&T Annual Meeting in Seattle, Washington. Our goal is to provide a space for inquiry into the elements of trust in light of ongoing data collection and use throughout society (both commercial and governmental).

We plan [4] to address questions such as

- How are researchers conceptualizing trust in the age of data?
- How can scholars investigate infrastructures of trust?
- Are understandings of trust shifting? If so, with what consequences, in which contexts?
- When is trust justified? When is it not justified? Should decision-makers focus on and build trustworthiness rather than (mere) trust?
- What are the economic, political and legal implications of trust in the age of data (big and small)?
- How does policy design build/undermine trust?
- What are the ethics of trust in the age of data?

Discussions of information policy are often based in the larger context of governing or the infrastructure in which social and political norms are established. The U.S. Constitution, the Constitution of Canada, the United Nations Declaration of Human Rights and other guiding documents exemplify these foundations. Democracy and fairness are based in transparency and access to information. The “right to information” is nonnegotiable and conceptualized most frequently as our right to access information about the goings on of our government. There is also the commonly held assumption that the information we get is true. In order for democracy to flourish, we must trust our government. Sandra Braman’s excellent book, *Change of State: Information, Policy and Power*, makes the strong connection between information policy and democratic ideals [5]. She focuses on some of the areas in the U.S. Constitution that insure the right of citizens to information about their government. The right to information is not only about access, but also about privacy.

The Fourth Amendment of the U.S. Constitution has been interpreted as calling for a right to privacy:

> The right of the people to be secure in their persons, houses, papers and effects against unreasonable searches and seizures, shall not be violated, and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched and the persons or things to be seized [6].

Without some degree of trust in the written word of the Constitution and the authorities that carry it out the agreement made between each of us and the societies to which we belong, trust breaks down. Some have questioned whether the massive data gathering and use we experience today has already changed this social contract. It is not the collection of these data traces that is troublesome but the potential that the data may be used in ways that erode our sense of trust in organizations and government.

For some, trusting the government is already a mistake, “…trusting the
government with your privacy is like trusting a Peeping Tom with your window blinds.” [7] Whether we approach the issue of trust in relation to privacy, we do know that our daily activities leave a digital trace. We can only trust that organizations and the government will use these bits in a way that comports with our conceptions of trust. Transparency is crucial in this case because, if we don’t know what or how data is being used, we can only rely on the words and actions of organizations and governmental agencies.

The question of trust is not limited to how we can best ensure it via policy, but is important across all ASIS&T special interest groups. Whether we trust in the authenticity of digital collections or in the validity of retrieval results, trust is a cornerstone of this professional organization. We hope to attract a broad spectrum of ASIS&T members as well as practitioners and individuals who may not yet belong to ASIS&T in our attempt to better understand and conceptualize trust in the age of data.

Resources Mentioned in the Article


[4] These questions are taken from the SIG/IP-SIG/III workshop description to be published in the ASIS&T Annual Meeting Proceedings.


What About Reader Privacy?
by Brandi Loveday-Chesley

Editor’s Summary
Americans have long valued their freedom of speech and expression, but specific protection of reader privacy is a relatively new concept. Legal threats to reader privacy date to the 1950s with a resurgence of privacy invasion by the IRS and FBI in the 1970s, prompting 48 states to pass legislation extending confidentiality to readers. The PATRIOT Act of 2001 authorized the FBI to gain broad access to bookstore and library records for alleged terrorism investigations. Such information seeking threatens every reader’s choice of reading materials where any trace, whether physical or digital, remains. Widespread use of computers to access data reflecting searches, downloads, cookies and other signs of reader habits and interests compounds the threat to personal privacy. Detailed records on electronic reader use stored in the cloud are accessible by authorities. It is crucial to recognize how invasions in the name of security threaten readers’ personal privacy.

Keywords
readers
personal information
privacy
usage records
computer security
government
intellectual freedom

Reader privacy is a concept that most states (48 out of 50) have decided to protect with legislation targeted to engender and protect the freedom of speech held so dear by Americans [1]. So, how does reader privacy really affect freedom of speech and thought?

Reader privacy addresses the issue that readers should be free to read whatever materials they wish without fear of the government or another third party accessing that information. Protecting reader privacy fosters intelligent inquiry, research and freedom of expression. To allow the government, or any third party, access to a reader’s records would constitute a serious invasion of privacy. Courts that protect reader privacy have allowed those who do not follow dominant political, social, scientific and economic thought to pursue their interests without fear of recrimination and the chilling effect that governmental intrusion can have on innovation and progress.

Brief History of Reader Privacy
While the constitution protects freedom of speech and expression, protecting reader privacy is relatively new. In the early 1950s the Supreme Court found it unconstitutional to convict a bookseller for refusing “...to provide the government with a list of individuals who had purchased political books.” [1]

The 1970s saw attempted invasions of reader privacy by the IRS as well as the FBI. In 1973, 48 out of 50 states passed “confidentiality statutes to prevent such invasions of privacy.” [2] The fight to protect readers’ rights was brought to booksellers in 1998 when Kramerbooks & Afterwords and Barnes & Noble were served with subpoenas for records as part of an investigation regarding President Clinton. The publicity brought about by this attempt prompted other authoritative bodies such as the Denver Police...
Department in 2000 to attempt to obtain detailed purchase records on suspects in criminal investigations [2].

The PATRIOT Act of 2001

In ensuing years federal and state courts have continued to protect a reader’s right to privacy even in the face of the PATRIOT Act of 2001. This legislation contains a section (215) that “greatly amends and expands the scope of FISA,” the Foreign Intelligence and Surveillance Act of 1978, “by granting the FBI the power to access and review any tangible thing, including bookstore and library records.” [3] The PATRIOT Act allows FBI agents, under (unsubstantiated) claims of terrorism, to “state to a FISA court judge that the records requested are in connection with a terrorist investigation. The assertion alone is sufficient: the FISA judge has no authority to reject this application.” [3]

An article published in _The New York Times_ on December 12, 2002, recounts a national teleconference of thousands of librarians worried about the implications of the PATRIOT Act’s sweeping ability to force libraries to surrender records of patrons. Despite the fact all speakers for the conference agreed that requests, accompanied by a legitimate court order, should be properly processed, they also admonished librarians to keep as few records as possible and the records they did keep were to be “promptly destroyed after use.” [4]

According to the Electronic Frontier Foundation, in the years following September 11, 2001, the FBI sought patron information from more than 200 libraries [5]. One instance recounted by Joan Airoldi, director of the Whatcom County Library in Bellingham, Washington, tells us of the FBI’s attempt to procure records of “persons who had borrowed the book _Bin Laden: The Man Who Declared War on America_, written by Yossef Bodansky.” [6, p. 26] The FBI agent seeking information showed up at the library and initially requested records without a subpoena or a satisfactory explanation as to need. The request was passed to management, who then contacted counsel. The agent was subsequently contacted by library counsel to gather more information, at which time they learned of a handwritten note in the margin of the book (which was found to be an almost direct quote from Bin Laden during a 1998 interview); the agent was told that library records would not be released without a subpoena. The library received a grand jury subpoena, at which time the Board of Trustees decided to fight the subpoena.

In the instance of Whatcom County Library, the grand jury subpoena was quashed on the grounds of First Amendment rights and no substantial connection between a grand jury proceeding and the information requested as well as “libraries have the right to disseminate information freely, confidentially, and without the chilling effect of disclosure.” [6, p. 26] This library system’s story only became public because it was a grand jury subpoena and not a PATRIOT Act subpoena. The grand jury subpoena did not include a gag order, but the PATRIOT Act’s provisions include automatic gag orders for all parties involved. Another provision of the PATRIOT Act removes the right of any party to challenge a PATRIOT Act subpoena in court. “Had the FBI secured a Section 215 order (of the PATRIOT Act) from the Foreign Intelligence Surveillance Court, the search would have gone forward and nobody – not even the patrons whose records had been examined – would have known it happened.” [7] This particular library system’s initial policy for keeping patron records was a maximum of 30 days. Since this incident, they have changed that policy to seven days.

Technology’s Effect on Reader Privacy

The introduction and use of computers and associated technologies has allowed the government to keep exceptionally detailed records about businesses and persons; computers also now house thousands of pieces of data that can be easily compromised or accessed if proper steps are not taken to protect them. The widespread use of this and similar technology has allowed users to keep bank statements, purchase receipts, digital journals, photos and more on personal and business computers. The browsers we use (such as Internet Explorer, Firefox and Chrome) to access the Internet can also tell authorities or a third party about user interests by examining the history of searches and the cookies stored on computers by websites.

Bit by bit (pun intended) our lives and even our personalities can be pieced together by those with the inclination to do so. All of these details
The breadcrumbs we leave behind in the digital world can paint a very accurate and detailed picture of who we are, who we were, who we want to be, our health issues, political affiliations and personal interests.

can also be misinterpreted and misconstrued by those same parties. The breadcrumbs we leave behind in the digital world can paint a very accurate and detailed picture of who we are, who we were, who we want to be, our health issues, political affiliations and personal interests.

The advances in technology regarding electronic readers (e-readers from this point forward) bring to the forefront the legislative need to update reader privacy laws to reflect the impact that technology has on record keeping and the possibility of these records being used improperly. Computer technology allows physical bookstores, libraries and Internet-based stores to store more information than before the so-called digital age. Digital books are becoming more commonplace as e-readers become more affordable. According to Cindy Cohn, legal director of the Electronic Frontier Foundation, “[d]igital books are now outselling paperbacks on Amazon.com, readers are turning to online services like Google Books, and analysts expect that over 18 million e-readers will be sold in 2012.” [8] These digital devices, half the weight of a hard cover book, allow users to carry hundreds of books, complete with marginal notes wherever they may go.

Amazon’s Kindle allows users to write notes in the margins of their purchased books. These notes are also stored in Amazon’s cloud computing environment along with records of purchases and detailed browsing histories that can include how long a page was viewed. Kindle also allows users to highlight passages of interest for their own notes or to share with friends via Twitter or Facebook. This information can be considered sensitive due to the fact it can give insight into the reader’s interests, which can also be misinterpreted and misconstrued by those same parties.

some members of society (and the government) may not approve of. One example mentioned in much of the literature reviewed was the instance of the McCarthy hearings of the 1950s. “Sensitive reader information can and does come under fire. During the McCarthy hearings, Americans were questioned about whether or not they had read Marx or Lenin.” [5]

Another service related to electronic books and readers is Google Books. Google Books allows users to purchase titles that can be accessed on multiple mobile devices. Purchases are stored in the digital cloud, which according to Google Books’ overview has an unlimited amount of storage space. [9] According to the objection filed by Privacy Authors and Publishers to the original settlement in The Authors Guild vs. Google, Google has “no limitations on collection and use of reader information and no privacy standards for retention, modification, deletion or disclosure of that information to third parties or the government. Without those limitations, an unprecedented quantity of information about readers’ activities will be and indeed already is being collected. Google Book Search can link a reader to every book searched for, browsed, purchased and read. It even tracks which particular pages the user reads and for how long.” [p.10, 2]

Conclusion

The rate at which the public now creates data bits for marketers, businesses and government agencies to follow is exponential when compared to the years before widespread computer use and the Internet. User names, log-in IDs, passwords, cookies, IP address tracking, click-tracking and a myriad of other items used by technology could easily be used to piece together an accurate picture of our personal lives, health concerns and interests. The rate at which the public uses material available online, such as journals, magazines, newspapers, research papers and books, begs to be addressed in legislation when such information can be used to infiltrate and ruin the lives of law-abiding citizens.

Intellectual freedom is a right to freedom of thought and expression of thought. It fosters innovation and ingenuity and accounts for our democracy, our technical advances and our current way of life. To ignore the fact that digital/electronic services offering sales of books or lending options need
the same protections as brick and mortar libraries is to invite the government into the private lives of every citizen who has ever made an online purchase of any book, electronic or not. As seen in the case of Whatcom Library, no thought other than terrorism was given as to why a book may have been checked out. For all anyone in that case knew, the person that wrote in the margin or checked out that book may have been interested in the psychology of Bin Laden for a research paper for a high school class. While some people may think this is fear-mongering all its own, we can thank our own government for such thoughts and feelings. They use the same tactics every day to chill the public’s outcry in regard to rights being slowly eroded. For those that claim disinterest or lack of concern for the digital reader, I would ask that they purchase a few books on Al Qaeda, Bin Laden or any other terrorist organization to see if it piques the interest of the FBI and the Department of Homeland Security or the NSA. Do we really want to wait until it is too late to protect our innovative, free thinkers who can change the world for the better in the name of security?

Resources Mentioned in the Article


Net Neutrality and the FCC: An Information Policy Primer
by Karl-Rainer Blumenthal

EDITOR’S SUMMARY
Net neutrality, a set of telecommunications industry standards, would deliver equal service levels for all who contribute to and use broadband Internet. The issue has been embroiled in controversy between the Federal Communications Commission (FCC) and Internet service providers, with content providers and users caught in the middle. The core of the dispute is classification under the Communications Act of 1934, to group broadband Internet as a common carrier service regulated by the FCC or to view it as an enhanced information service, ambiguously included in a 1996 amendment to the act. The FCC reinforced a regulatory framework through its Open Internet Order of 2010, stressing equity and transparency under the agency’s authority. Service providers have sought to limit the FCC’s control and to permit selective limiting, slowing or blocking of service to customers. The FCC’s own concessions and subsequent court decisions have trimmed the agency’s authority, refueling the drive to reclassify broadband Internet as a utility under the FCC’s control, ensuring a telecommunications infrastructure that provides fair and equal Internet access.

KEYWORDS
Internet  government agencies
information infrastructure  access to resources
telecommunications industry  social equity

Disclaimer: The author has received no formal legal training. The following reading of statutory code and litigation history represents his best faith effort to translate a complex and ongoing legal debate into language appropriate to its treatment as a matter of policy for information science and technology professionals.

The year 2014 has seen an unprecedented volume of public debate concerning the United States government’s responsibility to codify and enforce net neutrality – the telecommunications industry standards that protect equal levels of service for all contributors to and end-users of broadband Internet. This debate occurs in the context of repeated attempts by the Federal Communications Commission (FCC) to realize those standards by regulating Internet service providers (ISPs) under broad statutory authority that it derives from the U.S. Code. The nature of that authority has been debated in Congress and litigated in federal courts, providing incrementally more clarity to the boundaries of the FCC’s jurisdiction, but leaving the questions of whether and precisely how the U.S. government may enforce Internet service provider (ISP) observance of net neutrality standards still largely unanswered. At the time of writing, the FCC is accepting public comment on a proposed rule change that could alternatively maintain historical standards of net neutrality under new legal frameworks or make concessions to ISPs that proponents of net neutrality characterize as anathema to its core values, in particular enabling ISPs to create a tiered service model through independently negotiated service agreements with Internet content providers and end-users. Rather than acquiesce to the new standards advanced by ISPs and supported by recent court rulings, net neutrality purists suggest that the FCC instead reclassify broadband Internet as “common carrier” service under Title II of the Communications Act, effectively making it a utility with industry-wide

Karl-Rainer Blumenthal is the 2014-15 National Digital Stewardship Resident for the New York Art Resources Consortium (NYARC), a collaborative effort of the Frick Collection, Brooklyn Museum and Museum of Modern Art libraries. His research and practice pursue equitable access and sustainable preservation standards for digital information environments. He is completing an MSLIS at Drexel University in 2014. He can be reached at karl.blumenthal<at>gmail.com.
standards in the model of telephony or broadcast television. This article elucidates the disputes that have led to this fulcrum point for the FCC and specifically evaluates the effectiveness of reclassification as an opportunity to settle the net neutrality debate.

Federal agencies, lawmakers, United States Courts, advocacy groups, businesses and journalists refer to the concept interchangeably as net neutrality, Internet neutrality, Internet freedom or the open Internet. For consistency, I use the term net neutrality throughout this article.

Background: Defining and Enforcing Net Neutrality

Net neutrality has been a fiercely contested concept since the inception and wide adoption of the Internet in the United States. In most general terms it refers to the notion that broadband Internet service should be provided equitably, that Internet service providers (ISPs) not discriminate among content providers and end-users in order to block, slow or otherwise impede the transmission of data and/or information among them. For roughly the last decade, lawmakers, advocacy groups, entrepreneurs, telecommunications companies and legal scholars have attempted to define the core practical measures and, importantly, the federal legal framework for codifying and enforcing this ethos. While no conclusive balance of the competing interests among these communities has been struck, the FCC has produced the most comprehensive national standards and guidance to date. Since 2010, the conversation has been framed by the Open Internet Order [1], which sought to codify net neutrality’s principles of transparency and equity through the FCC’s authority to regulate interstate and international telecommunications under the Communications Act of 1934, as amended by the Telecommunications Act of 1996 [2].

ISPs have consistently challenged this authority in U.S. courts and won significant victories, curtailing the regulatory jurisdiction that the FCC had assumed from various and ambiguous sections of Title 47 of the U.S. Code. An unprecedentedly concentrated debate over whether and/or how the United States government can codify net neutrality has raged in public since the FCC proposed Protecting and Promoting the Open Internet [3] as a replacement to the Open Internet Order in May 2014. Net neutrality advocates charge that the replacement would enable discriminatory ISP practices, shedding new light on the long negotiation over the federal government’s responsibility to steward freedom of speech, innovation and entrepreneurship, and an informed citizenry. To succinctly explain the competing perspectives and divergent futures of these essential American institutions vis-à-vis the Internet, this article summarizes the FCC’s legal frameworks for enforcing net neutrality, the judicial opinions on those frameworks and the attempts to strengthen them through statutory amendment.

Determining the Role of the FCC

The Communications Act of 1934, a New Deal law that empowered the new independent federal agency to implement and enforce broadcast, telephone and other wire communications standards, initiated the FCC’s regulatory authority in this arena. Given the need to update federal law and the FCC’s statutory mandate to emerging telecommunications technologies like broadband Internet, congress amended the Act in 1996. This amended Act retained the FCC’s historical regulatory jurisdiction over Title II common carrier data services, like telephone and broadcast communications, and Title III cable communications services, like cable television, but added ambiguous language concerning new Title I “enhanced” information services, such as broadband Internet.

Whether and how the FCC could implement and enforce regulations upon ISPs as these newly codified Title I information service providers was a question left open after legal challenges to two attempted FCC enforcement procedures. In 2010 the U.S. Court of Appeals for the District of Columbia Circuit vacated [4] an FCC order to Comcast Corporation that the latter disclose details about its blocking of certain peer-to-peer networking applications as part of its adjudication of a dispute initiated by advocacy
groups. Finding that the U.S. Code granted the FCC “express and expansive authority to regulate” Title II common carrier services and Title III cable services, but no specific “statutorily mandated responsibilities” over Title I information services, the court ruled that adjudicating a dispute between Comcast and the complainants was outside of the FCC’s jurisdiction.

In 2013, however, the U.S. Supreme Court ruled in the FCC’s favor on the case brought against it by the cities of Arlington and San Antonio, Texas, over the commission’s interpretation of enforcement procedures pertaining to satellite broadcasting. In its 6-3 ruling, the court upheld the decision of the U.S. Court of Appeals for the Fifth Circuit that the commission, like other federal agencies, had broad freedom to interpret the bounds of its regulatory jurisdiction where those bounds are left ambiguous by lack of specificity in the statutory mandate provided by Congress.

In keeping with the license effectively granted it by the Supreme Court, the FCC had by this time built its legal framework for regulatory authority over broadband Internet services from the foundation laid by Section 706 of the Telecommunications Act of 1996, which reads, in part:

The Commission...shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans...by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.

and

The Commission shall determine whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion. If the Commission’s determination is negative, it shall take immediate action to accelerate deployment of such capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.

The term advanced telecommunications used in Section 706 is explicitly defined within the Code as including broadband Internet.

Operating under this perceived, congressionally mandated statutory authority, the FCC issued Report and Order 10-201, “In the Matter of Preserving the Open Internet: Broadband Industry Practices,” commonly known as the Open Internet Order, in December 2010 [1]. The order describes the history and principles of net neutrality, extolling its norms and de facto rules for stewarding innovation and entrepreneurship, free speech and an informed citizenry online. It furthermore documents explicit financial incentives for ISPs to hinder these pursuits by arbitrarily blocking or degrading services, and so briefly outlined the rules, implementation and enforcement procedures that it devised to protect net neutrality under authority specifically derived from Section 706.

Shortly thereafter, the FCC exercised this authority to again protect net neutrality norms against the financial incentives of Comcast in particular. In a January 2011 memorandum opinion and order [6], the FCC approved the proposed merger of Comcast and NBC Universal with the strict provision that Comcast not discriminatorily act to slow Internet traffic.

Such wielding of regulatory authority drew new challenges, both in the courts as well as on the floors of Congress. Less than a month after the FCC released its order on the Comcast/NBC Universal merger, Rep. Greg Walden (R-OR) introduced an amendment to H.R. 1, the Disaster Relief Appropriations Act, which would prohibit the FCC from using federal funds to enforce the provisions of the Open Internet Order [7]. This, he described though, was only a “stopgap measure” to prevent gross regulatory overreach until the House and Senate could pass a joint resolution rejecting and effectively nullifying the order’s rules. Rep. Walden’s amendment and the greater appropriations bill passed the House, the bill passed the Senate, but nothing ultimately reached the president’s desk by the end of the congressional term. The joint resolution of which Mr. Walden spoke passed the House in April 2011. And while it had 42 Republican co-sponsors in the Senate, Sen. Kay Bailey Hutchison’s complementary bill was debated but ultimately failed to pass a procedural vote to continue its consideration in that chamber.

The most effective rebuke of the specific rules and the greater legal framework for the Open Internet Order came in a January 2014 decision of
...legal scholars warned that the Verizon ruling essentially enabled monopolization of Internet services, which reignited interest in reclassifying broadband Internet as a utility in the model of other Title II common carrier services.

...legal scholars warned that the Verizon ruling essentially enabled monopolization of Internet services, which reignited interest in reclassifying broadband Internet as a utility in the model of other Title II common carrier services.

the U.S. Court of Appeals for the District of Columbia Circuit. As it had in Comcast, the court ruled in Verizon v. Federal Communications Commission [8] to vacate portions of an FCC order that it deemed fell outside its regulatory jurisdiction. This time, the court rejected the anti-blocking and antidiscrimination provisions of the Open Internet Order on the grounds that they limited ISPs’ statutorily protected right to negotiate independent service agreements to the point that ISPs were treated as de facto Title II common carriers, rather than Title I information service providers.

Reaction to the court’s ruling, which effectively left net neutrality without a formal federal advocate, was opportunistic on the part of ISPs and their allies and polemical on the part of net neutrality proponents. In the following month, Comcast announced a deal with Internet content provider Netflix that ensures a quality and a rate of service for the latter in exchange for an individually negotiated fee, directly violating the provisions of the now-vacated order and further, net neutrality proponents argue, proving violation of the terms of the Comcast/NBC Universal merger. In the meantime, legal scholars warned that the Verizon ruling essentially enabled monopolization of Internet services, which reigned interest in reclassifying broadband Internet as a utility in the model of other Title II common carrier services.

Remaining Legal Frameworks for Net Neutrality

Protecting and Promoting the Open Internet – the rules FCC devised in response to the Verizon ruling and subsequent outpouring of opinion in the early months of 2014 – provide a framework that it contends will protect against systemic abuse while enabling ISPs to continue negotiating independent service agreements with content providers and end-users of the kind typified by the Comcast/Netflix agreement. Accordingly, it does not propose reclassifying broadband Internet as a Title II common carrier service, though it awaited public comment until September 2014 on this and other alternative bases for rulemaking. Net neutrality advocates continue to encourage the public to comment specifically that broadband Internet be so reclassified, which would conceivably provide the FCC ample authority to impose industry-wide standards of service. However, the Commission’s near-capitulation on this strategy reflects the increasingly clear position of the U.S. courts that broadband Internet is in fact a Title I enhanced information service.

Were the FCC to issue an order after September 2014 that reclassifies broadband Internet as a Title II common carrier service, it is altogether likely that the order would be challenged by ISPs and vacated by the courts, which view the distinction between the service types as a settled matter of public law. It is not, after all, the responsibility nor the privilege of federal agencies to write, amend nor repeal laws. Reclassifying broadband Internet as a Title II common carrier service under Title 47 of the U.S. Code requires that Congress pass and the President enact a new amendment to the Communications Act of 1934, one which reflects the attitude toward broadband Internet’s role as a utility that was missing from the Telecommunications Act of 1996.

Both Democrats and Republicans have attempted to amend the Act. Early efforts in the House and Senate [9, 10, 11], however, sought and ultimately failed only to codify the same regulatory enforcement responsibility and capabilities of the FCC for Titles IV and V of the Act that the commission has already assumed for itself in its interpretation of Section 706 and expressed through the Open Internet Order. Only the Internet Freedom, Broadband Promotion, and Consumer Protection Act of 2011[12] sought to amend Title II. This bill, introduced even as Republicans in the House and Senate prepared to legislate against the provisions of the Open Internet Order, proposed to codify net neutrality by adding to the title a section, called “Internet Freedom and Broadband Promotion,” that includes the same substantive provisions and enforcement mechanisms
described in the order. Still, the bill suffered the same fate as all of its predecessors: it was quickly referred to committee and effectively tabled, never to reach the floor for debate.

Conclusion
The Internet Freedom, Broadband Promotion, and Consumer Protection Act of 2011 describes broadband Internet as “the most important two-way communications infrastructure of our time” and “as essential to our national economy as roads and electricity.” This conception is notably absent from the language currently distinguishing enhanced information services like broadband Internet from services historically treated as utilities, such as telephony, in the U.S. Code. While an open public comment period on a proposed FCC rule is an attractive opportunity for advocates of net neutrality to express their view that the FCC treat broadband Internet as such a utility, it is therefore nonetheless in the Code itself that this new reality need be expressed. Only then will net neutrality have the weight of congressionally mandated statutory authority that the FCC needs to compel ISPs and federal courts alike to abide by its principles.

Acknowledgement
I wish to thank Kristene Unsworth, Ph.D., for her critical early advice on the scope and direction of this research.

Resources Mentioned in the Article


Cybersecurity in the Federal Government: Failing to Maintain a Secure Cyber Infrastructure

by Christine Lino

EDITOR'S SUMMARY

Since the first cyber-attack in 1988, online viruses have proliferated through personal, organizational and government computers worldwide with devastating consequences. Concern was raised in 1999 regarding potential effects on the nation’s poorly protected nuclear weapons, and further reports have highlighted flaws in the country’s information infrastructure that put national security, public safety and personal privacy at risk. A 2014 report revealed the alarming frequency of attacks on government systems and agencies, gaps in awareness and response and minimal disclosure. Software protections are often nonexistent, ineffective or simply unused and insufficient to match rapidly advancing technology. Lack of leadership, expertise, funding, time and other resources adds to the challenge. Creation and implementation of cybersecurity policy standards have been thwarted by conflict over public and private sector roles, capabilities and inaction, and compliance with existing standards is negligible and ineffective. Joint pressure from the public and government will be needed for meaningful action.

KEYWORDS

data security
national security
public policy
privacy
government agencies
computer crime

The North Atlantic Treaty Organization (NATO) manages The NATO Review, a free online magazine containing opinion and analysis on current international security threats and challenges. Cybersecurity is highlighted on the NATO Review’s website and includes a timeline titled, “The History of Cyber Attacks,” that outlines the most significant and detrimental cyber-attacks throughout the world in the past 20 years. According to the timeline, the first significant cyber-attack was launched in 1988 and spread across many computers within the United States. The attack, labeled the “Morris Worm,” exploited vulnerabilities in the UNIX system Noun 1 and had the ability to self-replicate and subsequently slow down computers, rendering them useless [1]. A decade later, in May of 2000, the “ILOVEYOU” virus spread like wildfire via an email transmission that prompted users to open an attachment. The action of opening the attachment triggered attack code, automatically forwarding the email virus to all contacts in the user’s email contact list. Prior to this incident viruses sent via spam were rare; however, the ILOVEYOU virus changed the playing field by demonstrating how malware can send itself through spam and prey on human psychology [2]. The National Infrastructure Protection Center (NIPC) within the Federal Bureau of Investigation (FBI) was tasked with coordinating efforts with the private sector to collect data pertaining to possible cyber threats as well as sharing the information effectively. However, although the NIPC learned of the ILOVEYOU virus at 5:45 a.m. Eastern Standard Time, an alert was not disseminated until 11 a.m., after many federal agencies were hit [3]. Almost 12 hours after the delayed notification, guidance regarding remedying the damage was finally released. According to Willemsen’s statement on behalf of the General Accounting Office, deficiencies in dealing with these
cyber threats were caused by multiple factors, including insufficient understanding of risks, technical staff shortages, slow response rates, poor security program management, lack of adequate technical expertise and lack of supporting policy and funding [3].

“Science at Its Best, Security at Its Worst,” a report by the President’s Foreign Intelligence Advisory Board, was the main focus of discussion during a meeting of the U.S. House Committee on Commerce in 1999. This report raised concerns that the country’s most sensitive nuclear weapon laboratories and secrets, housed at the Department of Energy, were poorly protected [4]. Despite the risk awareness raised by this report, a year later the chief information officer of the Department of Energy admitted to the U.S. House Subcommittee on Government Management, Information and Technology that many of the same technical vulnerabilities still existed. In his statement the CIO compared cybersecurity to rocket science, stating that cybersecurity was more complex and “much more difficult than rocket science.” [5, p. 116] The CIO went on to detail the importance of receiving funding and support for cross-government security initiatives to serve as a foundation for improvements in cybersecurity. Furthermore, reports from the General Accounting Office were presented during a hearing before the U.S. Senate Committee on Governmental Affairs in 2000 and revealed that the “nation’s underlying information infrastructure is riddled with vulnerabilities which represent severe flaws and risks to our national security, public safety and personal privacy.” [6] While these hearings are only a few of many held by Congress focusing on cybersecurity throughout different government agencies, they collectively highlight the federal government’s inability to adequately protect against and respond to potential cyber-attacks over the past decade.

Since 1988 cyber-attacks have perpetuated, and many challenges faced in cybersecurity during the turn of the century are still problematic. While technology capabilities have grown by leaps and bounds, security measures and protocols are failing to keep pace with the rapidly changing field, often being rendered obsolete faster than new hardware and software can be released. In 2014 Senator Tom Coburn, ranking member of the Committee on Homeland Security and Government Affairs, released a report [7] revealing startling statistics regarding the government’s failure to bring cyber threats under control. The report indicated that government systems were the target of 48,000 detected cyber incidents, along with countless more undetected ones. Additionally, civilian agencies only detect four out of 10 cyber intrusions, and with reporting to the public being even worse, the majority of attacks are unknown to the public except on the rare occasions when hackers publicize their exploits. While many different agencies are subject to these cyber-attacks, the common thread among them is that the intrusions typically prey on common and fixable weaknesses. These inlets into the systems are frequently a result of out-of-date software and failure to install software patches or update programs. These controllable shortcomings pose great risk to the federal government and result in costly losses in manpower hours, personal data and classified or other protected information.

Policy, Legislation and the Government vs. Private Sector Debate

Over the years legislation has fallen short in mitigating the threat of cyber-attacks by failing to implement standards for prevention, protocol for reporting intrusions, consequences for non-compliance or adequate funding for necessary personnel and resources. The last piece of legislation to be passed was the Federal Information Security Management Act of 2002, also known as the E-Government Act [8]. Since 2002 many failed attempts were made to update cybersecurity policy, including in 2012 when the U.S. Senate failed to pass the Cybersecurity Act of 2012 [9].

This failure is frequently attributed to differing opinions regarding the roles of government and the private sector in cybersecurity program and policy regulation and oversight. One side of the debate about government involvement holds that the private sector has not adequately implemented measures to protect themselves against cyber threats, warranting government involvement [11]. A study conducted by Dell surveyed global IT leaders and found that most believe the government can help create strategies to protect against cybersecurity threats. In fact, nearly 90% of those surveyed believe government involvement in developing cyber
defense strategies is necessary and view the government’s role in protecting organizations against threats as positive. Only 17% believe the government hindered operational effectiveness in regards to security [12].

Those who oppose government involvement in cybersecurity management argue that the federal government is not sufficiently equipped to develop and enforce cybersecurity policy and regulations [10]. From an enforcement perspective, the federal government struggles with ensuring its own agencies comply with federal policy, and confidence is minimal that federal legislation would succeed on a broader scale. Coburn says, “None of the other agencies want to listen to Homeland Security when they aren’t taking care of their own systems. They aren’t even doing the simple stuff.” [11] In the same The Washington Post article, Coburn describes another underlying problem as the inability of federal agencies to “hire top-notch information technology workers, pay them enough and give them enough clout to enforce routine security practices.” Adding insult to the lack of confidence held in the government’s abilities to manage the issues, the U.S. government has spent at least $65 billion since 2006 to implement tools to secure computers and networks; however, there seems to be little to no compliance with standards and no decrease in the vulnerabilities that exist and cyber-attacks that continue to happen [7, 12]. Both Democrats and Republicans voted against the Cybersecurity Act of 2012, with a shared concern being that the regulatory approach of the Cybersecurity Act would be ineffective and potentially harmful [13].

Following the Senate’s failure to pass the Cybersecurity Act of 2012, the Obama administration began drafting Executive Order 13636, modeled on the Cybersecurity Act [14]. Issued in February 2013, “Improving Critical Infrastructure Cybersecurity” states “repeated cyber intrusions into critical infrastructure demonstrate the need for improved cybersecurity. The cyber threat to critical infrastructure continues to grow and represents one of the most serious national security challenges we must confront.” The order also asserts that it is the policy of the government to “maintain a cyber-environment that encourages efficiency, innovation and economic prosperity while promoting safety, security, business confidentiality, privacy and civil liberties.”

When analyzing the list of agencies, it is clear that the risk is not only to the nation’s infrastructure, but also to the nation’s citizens whose personal information is left unlocked for hackers to steal and use as they choose.

The order seeks to address a variety of cyber threats by expanding programs for information sharing and collaboration, establishing a process for identifying high priority infrastructure, requiring the National Institute of Standards and Technology (NIST) to create a cybersecurity framework of standards and best practices, and requiring agencies to determine adequacy and ability to address risks [15]. The importance of information sharing with private sector entities within the United States is paramount as it provides support and allows those entities to use the information from the federal government as a tool to better protect and defend their systems against similar cyber threats. To this end, the order directs the secretary of homeland security and the director of national intelligence to oversee timely production of unclassified reports for the private sector following individual cyber-attacks [14]. Not only does the executive order recognize the need to share information with the private sector, but it also reiterates the importance of creating and expanding programs that bring subject matter experts from the private sector into the federal service. The purpose of incorporating subject matter experts is to collaborate on identifying “content, structure, and types of information most useful to critical infrastructure owners and operators in reducing and mitigating cyber risks.” [14]

A year after the release of Executive Order 13636, Coburn released the previously mentioned report that shed light on the actual and potential impact of significant breaches in cybersecurity on U.S. infrastructure. Such high-risk breaches have risked data pertaining to the nation’s weakest dams, plans for nuclear plants and blueprints for the technology undergirding the New York
Multiple agencies, including the Departments of Homeland Security, Justice, Defense, State, Labor, Energy, Commerce, NASA, EPA, the Office of Personnel Management and others, were cited as offenders that fail to secure data pertaining to the safety and security of the nation. When analyzing the list of agencies, it is clear that the risk is not only to the nation’s infrastructure, but also to the nation’s citizens whose personal information is left unlocked for hackers to steal and use as they choose.

One of the most disturbing findings of Coburn’s report is that the Department of Homeland Security was tasked in 2010 by the Obama administration to lead efforts to secure computers across the federal government, yet research revealed that, like many other agencies, the department still experiences similar shortcomings in updating and maintaining a secure infrastructure. Furthermore, it was determined that the Department of Homeland Security rated below the government-wide average for compliance with properly using anti-virus software and other security measures, including security awareness trainings. Another startling example includes shortcomings found at the Nuclear Regulatory Commission, which maintains sensitive data on nuclear facilities, design and plans for all nuclear reactors and waste storage facilities, and information on design and process of nuclear material transports. Coburn’s report detailed issues including perceived ineptitude of NRC technology experts, sensitive data stored on unsecured shared drives, failure to report security breaches and inability to keep track of computers.

The Way Ahead

Following Coburn’s report publication, NIST issued “Framework for Improving Critical Infrastructure Cybersecurity,” as directed by Executive Order 13636 [16]. The purpose of the framework is to create “a set of industry standards and best practices to help organizations manage cybersecurity risks.” [16, p. 1] The government and private sector collaborated on creating this guidance, consisting of the “Framework Core, Profile, and Implementation Tiers” to address and manage cybersecurity risk in a cost-effective way. The framework also includes parameters for organizations and agencies to follow in developing procedures for protecting the privacy and civil liberties of U.S. citizens while carrying out cybersecurity activities. The private sector and NIST recognize that there is no one-size-fits-all approach and therefore the framework will be a living document that will continue to be improved and updated, based on feedback, evolving threats and new solutions. The framework is also generic and not industry- or country-specific, allowing organizations of different types and countries to adopt the framework to strengthen their own cybersecurity efforts.

According to a 2013 Congressional Research Service report [15], cybersecurity threats and consequences to U.S. infrastructure and high-value assets continue to be a concern in our nation. However, risks have long been known and largely swept aside as agencies continue to fail to comply with basic information security practices. There is no shortage of information available from government and private and public resources that have researched and reported on the existing and potential cybersecurity threats, yet much of the public, including those directly affected, are inadequately informed. While the number of hearings, research reports and failed legislation is plentiful, laws and best practices are lacking and not enforced sufficiently. Collaboration between private and government sectors and professionals may increase the likelihood of passing future legislation on the topic and may convince many agencies to commit the necessary time, personnel and resources to properly securing our nation’s infrastructure against the risk of cyber threats.
### Resources Mentioned in the Article

Addressing eHealth Literacy and the Digital Divide: Access, Affordability and Awareness

by Grace Begany

EDITOR’S SUMMARY
The Internet is beyond the reach of about six percent of Americans, limiting their access to general information and communications and to health information in particular. Eight of 10 Internet users look online for a range of health-related information to understand medical conditions and treatments, access care providers and learn about insurance. Consumers, the federal government, the business community and access providers all have a stake in eHealth information access. The government has promoted awareness and understanding of health issues and provided funding for broadband and wireless telecommunications infrastructure. Businesses rely on consumers to make use of health information, and several major telecom firms have provided hardware and training to enable eHealth endeavors. Efforts must address basic Internet connectivity and user costs and awareness, obstacles that undermine availability of important health information to consumers.

KEYWORDS
health information
information access
Internet information resources
information infrastructure
connectivity
barriers

Grace Begany is a Ph.D. student at SUNY Albany. She can be reached at gbegany<at>albany.edu.

In a society with seemingly ubiquitous Internet connectivity, where online use is now commonplace, it is striking that a large number of American citizens still has very limited or no access to information and communication technologies. According to a report by the Federal Communications Commission (FCC) [1, 2], released on August 21, 2012, approximately 19 million Americans – about six percent of the population – still lack access to broadband Internet services. This disparity primarily occurs in rural, tribal and some urban areas among ethnic minorities in low-income households. These citizens, left out of digital society, are largely unable to access information important to their daily lives, including health-related information [3, 4, 5].

Next to accessing email and using a search engine, looking for health information regarding specific diseases, medical problems, treatments, procedures, doctors, medical facilities, health insurance, food safety, drug safety, environmental health hazards, pregnancy, childbirth and more remains one of the most important activities for Internet users. With eight-out-of-10 Internet users, or 59% of all U.S. adults [6], looking online for health information, this activity ranks as the third most popular online pursuit. People who lack access are missing out on this common online activity as well as an important opportunity to develop their eHealth literacy. Using emerging information and communication technologies to access just-in-time information to improve their health and lives, or the health and lives of their loved ones, is unfortunately out of reach [3, 5].

An examination of approaches and initiatives intended to address these issues is the focus of this white paper. Suggested directions for further action regarding access, affordability and awareness are proposed from a consumer advocacy perspective.
Stakeholders concur that a digitally connected and literate population is a critical necessity to the nation’s social, cultural and economic success and its ability to survive and compete in the 21st century.

Stakeholder Perspectives and Initiatives

In general, wide agreement exists in the United States regarding the need to further close the digital divide and increase access to and awareness of online information, particularly health information, for all citizens. Among the stakeholders in this effort are individual citizens, consumer advocacy groups, public access providers, government and the business community. Stakeholders concur that a digitally connected and literate population is a critical necessity to the nation’s social, cultural and economic success and its ability to survive and compete in the 21st century [5, 7, 8].

U.S. Government

A key stakeholder in the effort to increase eHealth literacy and bridge the digital divide is the U.S. government. The federal government plays a leading role in securing resources and meeting citizens’ needs for equal access to critical technology infrastructures and information, particularly information that can benefit health and lives [7]. The government has demonstrated clear leadership in the effort to provide broader access to eHealth resources via several recent key initiatives. For example, the Healthy People 2020 initiative aims to improve the health of all citizens by increasing public awareness and understanding of health, disease and disability, as well as identifying nationwide health improvement priorities [9]. To improve access, the government’s American Recovery and Reinvestment Act of 2009 provided $7.2 billion in funds for broadband and wireless infrastructure projects [10]. Additionally, as mandated by the Recovery Act, the government unveiled the National Broadband Plan in 2010. The plan’s goal is to improve broadband Internet access nationwide to guarantee a more innovative and competitive nation and economy [11].

Business Community

Businesses, such as hardware manufacturers, software developers, Internet service providers, telecommunications companies and content providers depend upon consumers’ use of their services; hence, they are another key stakeholder regarding issues of the digital divide and information access. Notably, a number of organizations such as Hewlett-Packard, 3Com, Intel and Microsoft have made substantial contributions, primarily through public-private partnerships, toward closing the gaps. For example, in 2003, Microsoft and Gateway contributed $250 million to install more than 47,000 computers and train librarians in nearly 11,000 libraries across the country. Additionally, since 1997, Cisco Systems has been donating equipment, products and training services to high schools and community centers via its Cisco Networking Academy [7].

Given that searching for health information ranks as the third most popular online pursuit, such initiatives by the business community are certain to have a clear impact on health information consumption.

Consumer Advocacy Response

Although government, business community and other initiatives have yielded admirable gains in further ensuring that citizens are able to fully participate in and reap the many benefits of our digital society, barriers still remain. The ability to connect to and access important digital resources and information, including health information, is essential for all American citizens. To this end, further work must be pursued with a focus on three key issues: access, affordability and awareness.

Access

As noted, great strides have been made on the part of government, businesses and others toward the goal of providing all citizens with access to online resources and information, including health information; however,
the United States has fallen behind other developed nations in this regard [12]. With 19 million Americans still lacking broadband access, it is evident that more work is needed to increase broadband adoption and permanently close the digital divide. The FCC’s own 2012 report concludes that broadband is not yet being deployed in a reasonable and timely fashion [1, 2]. As such, the federal government must continue to press Recovery Act and other government funding recipients to complete critical broadband projects and deliver upon goals as mandated.

Affordability

Another major obstacle to the adoption of Internet-ready information and communication technologies is the high price for service. In fact, the FCC estimates that approximately 100 million Americans have not subscribed to broadband services due to affordability barriers [13]. Relative to their counterparts in other developed countries, American consumers pay more – up to double the amount – for their Internet service [12]. This disparity is unsustainable, given the government’s goal to provide full connectivity for every citizen. Therefore, initiatives like the H.R. 1685: Broadband Adoption Act of 2013, a proposed amendment to the Communications Act of 1934 that includes provisions for making broadband more affordable, must be strongly supported and quickly moved through the legislative process. Introduced on April 23, 2013, by Congresswoman Doris Matsui (D-CA), the Broadband Adoption Act, if enacted, would provide discounts on in-home broadband Internet service for low-income Americans in rural and urban areas, allowing equal access to affordable services. A key component of this bill is the provision that costs for the service discounts would be absorbed by the service providers and not the taxpayers [13, 14]. Placing the cost burden on providers, as well as some of the social responsibility for bridging the affordability aspect of the digital divide, is an appropriate course of action. Additionally, the bill recommends providing a preference to participating broadband service providers who include digital literacy programs as part of their offerings. Such programs could conceivably include crucial eHealth literacy programs among others. The bill, currently stalled in the House Energy and Commerce Subcommittee on Communications and Technology [14], needs to be reviewed, pushed forward for a vote and hopefully soon enacted.

Awareness

As problems of access and affordability are addressed, the issue of eHealth literacy can be tackled more effectively. Only then will programs promoting eHealth literacy become available to a wider group of citizens who will be able to take full advantage of digital technologies to fulfill their health information needs, leading to improvements in their health and lives. Key initiatives such as Healthy People 2020 could then engage in broader, more aggressive marketing efforts to connect with citizens previously out of reach.

Conclusion: A Three-Pronged Approach

Increased connectivity along with better health information resources is an important and critical goal, especially given the large number of people unable to participate in our heavily digital world. A combination of initiatives focused on access, affordability and awareness would offer the broadest possible approach to establishing greater eHealth literacy among U.S. citizens and further closing the digital divide.

Resources Mentioned in the Article


Resources continued on next page
Resources Mentioned in the Article, cont.


Buying and Selling Information
by Michael L. Gruenberg

EDITOR’S SUMMARY
While some individuals prefer to think they make decisions independently, uninfluenced by any salesperson, few major decisions are made without input from others. Considering another’s suggestion requires trust in the person, and selling products, including information products to libraries, depends on a trusting relationship between the buyer and seller. With limited budgets, libraries must be selective in choosing subscription-based products. Yearly renewals of a product depend not only on the quality and fit of the product but on a positive working relationship with the representative. Sales meetings demand careful preparation, with understanding of the organization’s long- and short-term goals and priorities. Efficient and professional meeting management and open communication demonstrate respect and reinforce trust, boosting sales and customer satisfaction.

KEYWORDS
information industry trust
commerce decision making
customers
vendors

Early in my sales career, when I first began to enjoy a degree of success selling information products to libraries, I was drawn into a conversation one day at the home office by one of the more senior members of our company. He was pontificating about the influence salespeople have when making a sale to a customer. He was not employed in either the sales or marketing departments, which probably skewed his understanding of the buying and selling process.

“You know, I am 60 years old and I cannot ever remember a time when I was sold something,” he proudly said.

I was somewhat taken aback by his bold statement.

“Really?” I said. “How is that possible?” I asked incredulously.

“I know what I want, and no salesperson can sell me what I don’t want to buy,” he definitively said. “I always know everything I need to know about what I’m buying well in advance.”

“When you bought that new car sitting in the parking lot, did that vehicle just magically appear in your driveway without anyone describing anything about it to you? And did your wife, 18-year-old son and 20-year-old daughter have anything to say about the make, color, etc.?” I asked.

“And that diamond ring you gave to your wife recently for your wedding anniversary, did that simply appear on her ring finger without the aid of someone being involved in helping you through the buying process?” My questions were met with silence. So I continued.

“So you’re telling me that you recently made two major purchases in your life, purchases that will have a profound effect on your wife and family and no one described in any detail what you were buying because you knew it all?” I asked. “You possibly may be an expert on Chevrolets, but please don’t tell me you’re an expert on diamond rings, and since I know your

Michael L. Gruenberg is currently president of Gruenberg Consulting, LLC, a firm he founded in January 2012 devoted to provide clients with sales staff analysis, market research, executive coaching, trade show preparedness and best practices advice for improving negotiation skills for librarians. Most recently, he was director of sales for strategic account management at ProQuest. His new book, Buying and Selling Information: A Guide for Information Professionals and Salespeople to Build Mutual Success, was recently published by Information Today. He can be reached at mike<at>gruenbergconsulting.com.
Selling databases for libraries is somewhat different from selling a commodity at a mall, and buying information is not like going to the grocery store, but the trust factor between the buyer and seller is still always present in this sales process.

wife, I am certain that she had input on the purchase of that beautiful ring,” I said. “I am also quite sure that a salesperson was thoroughly involved in that purchase!”

His silence was deafening because in a few short seconds he realized how ludicrous his statement was. I was sorry to burst his unrealistic bubble when I went on to tell him that a myriad of people sell us a variety of goods and services every day and that sometimes we make sales in relation to ourselves. Those sales are not for goods and services, but for who we are and what we’ve accomplished so that our managers at our place of employment understand our contributions to the success of the organizations we work for.

In our professional careers, we learn very early the art of the “internal sell,” by which we positively position ourselves within our organizations paving the way for us to obtain higher salaries, better jobs and secure employment. The reality is that we are buying and selling every day. Some of those sales involve the act of self-promotion so that our organizations’ management further understands the length and breadth of our contributions to the betterment of the company. But for the most part, we are actively involved in the buying and selling of products/services each day, usually with the assistance of one or more people who influence our decisions.

I have been fortunate to have a long sales career representing information industry company database products that are used in libraries. I have sold to many different types of libraries – university libraries, public libraries, government libraries, corporate libraries, medical libraries legal libraries and technical libraries. The bottom line is that whatever product or service is being sold to any of these institutions, the one indisputable axiom that governs every sale of every product is that “people buy from people; they do not buy from companies.”

It’s all about the relationship between two people: the buyer and the seller. In our everyday lives, when we encounter a selling situation, we may ask ourselves, “Do I trust the car salesperson to tell me the truth about that shiny new convertible?” “Can I be really sure that the shirt and pants I am probably going to purchase actually look good on me, or is the salesperson just saying I look good, only to make a sale?” “Does that diamond shine ever so brightly only because the person on the other side of the counter is showing it to me under a special light?” It comes down to trusting the other person.

Selling databases for libraries is somewhat different from selling a commodity at a mall, and buying information is not like going to the grocery store, but the trust factor between the buyer and seller is still always present in this sales process.

All organizations that buy products and services are watching their spending budgets more carefully today than ever before. Libraries typically have limited amounts of money to spend in healthy economic times. When those times include the fiscal stress the world has currently felt, budgets to buy products and services are even more closely examined. Since we are still in a state of uncertain economic growth, library budgets continue to suffer, so that not only do information professionals have to be fastidious in selecting the appropriate titles to buy, but they also must be aware that every dollar spent needs to be spent wisely and that the salespeople they work with should be trustworthy.

That’s why the relationship between the buyer and seller of information products is perhaps the keystone for success if both parties are intent on reaching their respective goals: for the salesperson, to make a sale and, for the librarian, to buy an appropriate product/service for a reasonable price.

Since the buying and selling of subscription-based products is an integral part of the library business, the salesperson realizes that the renewal of the subscription is perhaps even more important than achieving the initial sale. This is an annuity business, which means that a database sold in 2014 translates to the salesperson that he will be back in 2015 to renew that
subscription. That repeat business is why it is important for both parties to establish a harmonious working relationship. They will be speaking to one another for many years to come.

In my recently published book, *Buying and Selling Information: A Guide for Information Professionals and Salespeople to Build Mutual Success*, one of the aspects of the process that I examine is how both parties prepare for their meetings. By understanding the preparatory process of all participants, both sides will come away with a better appreciation of their counterparts and be better prepared to begin a productive journey resulting in both parties achieving their goals.

Some have suggested that the path to a successful negotiation is to be adversarial. In my many years of negotiating contracts with libraries, I have never seen an adversarial relationship succeed. Not that I am suggesting that every negotiation I have been a part of was all hearts and flowers. And I certainly can vividly recount negotiating sessions where strong opinions were voiced on both sides of the table, but I choose to believe that no one entered those meetings expecting to browbeat the other person into submission. Each person began the sales discussion with the most honorable of intentions.

I choose to believe that a good negotiator understands that not all demands by the other side will be met and that a significant aspect of the discussion will be to find the middle ground so that both sides can come away with a win.

**Preparation**

In order to have a successful meeting, a certain amount of preparation needs to be done by both parties. For the salesperson, it is important to have a basic understanding about the organization that will be the recipient of her sales efforts. Going to the organizations’ website prior to the meeting gives the salesperson a basic idea of the organization’s goals, objectives, and usually its mission.

For example, most library websites have a message from the director. That message may talk about new initiatives, a new addition to a current collection or even a goal for the future. Some sites may even include a three-to-five-year growth plan for the library. Talking about the director’s goals for the library is the most powerful statement a salesperson can make at the presentation and selling meeting, goals that may, coincidentally, be helped by the products offered by the salespersons’ company.

Similarly, before meeting with the salesperson, the information professional should examine the company’s website. What is the CEO of the company saying about its future direction? What are the new products being developed? Have there been any significant acquisitions? What crucial issues is the company dealing with? If both the buyer and seller have, at the very least, an overview of each other’s organizations, then the meeting will have much more significance and result in a quicker resolution to the topics under discussion.

Perhaps the most important aspect to establishing the groundwork for a successful meeting is the use of an agenda. Either the buyer or the seller needs to take control of the meeting even before a substantive meeting takes place. An agenda distributed prior to the meeting spells out the reason for the meeting. Logically, the seller needs to take this initiative. For example an agenda sent in advance by the seller may look like this:

“I will be visiting your library next Tuesday at 11:00 a.m. I want to introduce you to our new Whiz Bang database. I will be bringing Bill, the product manager who is intimately involved in the development of this product and its future updates. He can accurately tell you all about it. I would also like to discuss your upcoming renewal.”

The agenda e-mail should conclude by asking the information professional if there is anything else to be added to the agenda. Engagement has begun! Providing the proposed agenda ahead of time gives the buyer an opportunity to accept, reject or modify it. No matter what they choose to discuss, both parties are beginning their conversations well before each of them ever sits down across a table from one another.

The buyer may say in response to the proposed agenda, “I am happy to see you next Tuesday at 11:00 a.m. and thank you for bringing Bill. I know him quite well and have always been impressed with his knowledge. I will be bringing Lynn Marie, our subject specialist to the meeting, who is very excited about seeing your new offering. I would prefer not to speak about the upcoming renewal and confine our discussion to the Whiz Bang database.”
In one quick response the buyer has acknowledged interest in the new product, informed the salesperson that another person on their side would be joining the discussion, gladly accepted Bill, the product manager, to the discussion and has rejected a proposed agenda item about the renewal and has set the ground rules. Similarly, the sales rep can now prepare by making sure that all questions related to the topic at hand will be clearly covered by the rep and the product manager. An air of efficiency and professionalism has been easily established by the use of an agenda sent prior.

The last thing anyone wants is a surprise at the meeting. If the rep brings the sales VP or CEO of the company unannounced, it shows a lack of respect for the buyer causing a lack of trust and will not sit well with the client/prospect for future meetings. Moreover, the buyer should know if the seller is bringing a high-level executive to the meeting. If the buyer knows in advance, then arrangements can be made for the director or chief executive to balance the rank and stature of the attending participants. No one wants to be overwhelmed by the other side. Bringing a high-level executive unannounced to a meeting can be perceived as a bullying tactic, which has no place in the negotiation process. After all, it is all about trust and openness. It is difficult to trust someone who surprises you.

What’s Next?

The agenda has been sent and approved by both parties. The meeting takes place. The seller presents a product/service and the buyer listens intently. It looks like a sale is imminent. What happens next?

A major issue these days is for the seller to understand the purchasing procedures of the organization that might be buying. We are all living in a time where money to buy new resources may not be as readily available as it used to be. As a result, organizations, especially libraries, are elongating the purchasing process so that many more people are involved in the final buying decision. What used to take 60-90 days for approval and finalization, now takes 90-120 days or more to get the purchase order in hand.

To shorten the approval cycle, some sales managers instruct their reps to say that the currently quoted price will only be in existence for a short time and that if a decision for buying the product/service is made after that time, the quoted discounted price will not apply. Sometimes that tactic is truthful – and sometimes not. The salesperson needs to know what the buying procedure is for each organization that she’s attempting to sell her products to. Timing is everything and the salesperson needs to know this information.

“Jane, we love your new database product you showed us, and we have the funds to buy it for the agreed upon price,” the buyer may say. “My boss has given approval, but now it goes to the acquisitions committee for the final OK. It’s not a sale until they approve the paperwork to be sent to you” may be the buyers’ advice.

It is the buyers’ responsibility to tell the seller what it takes to buy something in his organization. The proper response from the seller is to thank the buyer for the insight and then ask about the timeframe that the approval process will take. Because when the salesperson returns to the office and reports to the manager the details of the meeting, the first thing the manager will ask is for a prediction of when that sale will become final.

The salesperson cannot say it was a productive meeting without knowing when the sale will be finalized. Salespeople and their managers live in a world of monthly quotas dictated by financial goals and objectives. As long as the sellers’ company knows with a high degree of accuracy when the sales will likely come in, the management of the company can make intelligent predictions of future revenue for their shareholders, employees and investors. It is all about the accurate and timely flow of information to and from both parties.

In the workshops that I conduct on negotiation skills, I often ask the participants to tell me about the current state of information processing and how it differs from 100 years ago. Everyone immediately tells me about newspapers on paper vs. newspapers online as a prime example. They cite cable television stations like CNN and MSNBC as having the ability to
cover conflicts in the world literally as those events unfold before our eyes as opposed to reading about those events days later in a weekly magazine. They cite printing presses vs. the Internet. Twitter, IM, LinkedIn and the ever-growing list of today’s miracle communications devices, which always amazes me.

But then I ask, “So, what is the same in the flow of information today that was also present 100 years ago?” That answer is not as easily forthcoming, and yet it is the easiest question to ask. The answer is that we had 24 hours a day to transmit information 100 years ago and we still have 24 hours a day to transmit information today. For both the buyer and seller, the answer revolves around how we use that time efficiently each day.

In our fast-paced world, we only have time for meetings that make sense. We do not have time to sit in on senseless meetings. By communicating effectively with one another, buyer and seller establish a framework of efficiency and trust. By openly communicating, the meetings make sense and a decision is effectively made on whether to buy or not. And after all, isn’t it in everyone’s interest to achieve resolution as opposed to wishing and hoping?

For Additional Reading


The ASIS&T Oral History Program: An Interim Report
by Robert V. Williams

EDITOR’S SUMMARY
As part of the 75th anniversary celebration of ASIS&T, an oral history program was started to document the background, significant events and careers of outstanding individuals in information science and technology. The ongoing project takes a cue from oral histories of the Medical Library Association and the Chemical Heritage Foundation and captures individuals’ experiences and decisions in their personal and professional lives, reflecting the development of the association itself. With seed funding from the ASIS&T SIG Special Projects Fund and help from graduate classes and Special Interest Group/History and the Foundations of Information Science, the initiative has relied on volunteers to identify and visit with interviewees and to record, transcribe and prepare materials for deposit in the ASIS&T archives at the University of Michigan Library. Interviews illustrate the leaps in telecommunications influencing personal careers and helping the Association in its early years, the expansion of centers for information retrieval science, bureaucratic challenges and the interplay of personalities. The ASIS&T oral history project is an important documentation of the growth of the field, capturing recordings, photos and biographies of key contributors.

KEYWORDS
Association for Information Science and Technology
information science history
oral history
information scientists

The ASIS&T oral history program began in 2011 during preparations for the 75th anniversary celebration of the Association for Information Science and Technology, which was held at the 2012 Annual Meeting. The 75th Anniversary Committee, chaired by Toni Carbo and Bob Williams, oversaw the program. The basic idea for the program was to select an initial group of ASIS&T leaders that had not been documented in an earlier oral history project. This list, selected by the 75th Anniversary Committee, initially consisted of about 50 people and was then roughly prioritized by the ages of the leaders on our list. In the selection process strong consideration was given to former Award of Merit and Research Award winners. A deliberate effort was made to make the program truly international. Michel Menou, a longtime ASIS&T member based in France, formed a small group in Europe to conduct interviews there. A small subset of the initial 75th Anniversary Committee, consisting of Kathryn La Barre, Trudi Hahn, Toni Carbo, Lai Ma and Bob Williams, continues to oversee the program. SIG/HFIS (History and Foundations of Information Science) members have also been of invaluable help.

No funding for this program was provided by ASIS&T, but a grant proposal was submitted to the Institute for Museum and Library Services. It was not successful, so the 75th Anniversary Committee decided that we would have to rely on the work of the committee and volunteers. Later, in 2013 and 2014, the ASIS&T SIG Special Projects fund provided two $5,000 grants for interview transcription and preparation of a website to display the interviews. Samantha Hastings, director of the School of Library and Information Science at the University of South Carolina, has provided several graduate assistants to help with background research and transcription. Oral history is a very expensive process, requiring background research on the individuals to be interviewed; equipment; travel expenses for the interviewers;
transcription costs; editing of the transcript; final completion of the transcript and the video or audio recording and preparation for deposit in the ASIS&T archives at the University of Michigan Library.

**Why Do Oral History?**

The major purpose of an oral history interview is to document the undocumented and under-documented events, background and decisions relevant to the individual being interviewed. Thus, considerable background research has to be conducted on what the individual did in his or her career. This profile includes but is not limited to the identification of important turning points in the personal and professional life of the interviewee. These experiences, decisions, major intellectual contributions, work history and so forth need to be documented by the interview if they have not been documented in some other form, such as the interviewee’s CV/vita or his or her own writings. Since one of our major purposes was also to document the development of ASIS&T over the years, it was necessary to go beyond such things as ASIS&T board minutes or other Association official documents.

Oral historians in all fields have several problems that affect their work. The first has to do with funding. In our case money has been a large problem, and we must depend mostly on volunteers who donate their time and travel expenses. The second problem is deciding the kind of interview to do. The two major choices are either short, basic-facts-and-career-assessments by the interviewees or longer life-career interviews with specific attention to issues and decisions the interviewees have been involved in over their careers. Our oral history program is a mix of the two types. The third problem of oral history interviews is to get the interviewees to talk freely about the problems, issues, disappointments and successes of their careers, particularly those that are not documented. We have carefully guaranteed every interviewee complete confidentiality, including giving the interviewee control over all access to the interview for a period he or she specifies. However, sometimes this measure still does not completely alleviate the fears or reluctance of the interviewees, and they do not tell it all as is preferred. Below, for a little flavor, are just a few excerpts from some of our interviews, reproduced by permission of the interviewees.

**Margie Hlava on early online searching** (p. 14 of transcript):

Hlava: Well, no, they didn’t have a CRT, that came along shortly thereafter, but they had thermal paper and they did have a keyboard, then the next advent after was to make the connection easier. We would do it with an acoustic coupler and from Albuquerque, we had a phone on Telnet to Phoenix, and because there’s a mountain range in the way, the connection didn’t always work. We went from 15 to 300 baud and then eventually 1200 baud, which was like lightning fast! It was still really expensive because we were charged per connect minute.

**Michael Buckland on his decision to be a librarian** (p. 20 of transcript):

Buckland: So I applied to University College London and I applied to Sheffield, which hadn’t yet opened. I interviewed at London, and I probably didn’t interview very well, because they told me to my face that they didn’t think I could handle their course...I’ve reminded them off and on once or twice since... [laughter]. Sheffield said, “Come.” So that’s how I decided to go to Sheffield. I was one of the first intake of students. There were, as I recall, 22 students, 21, 23, something like that, in the first class admitted. There were four faculty, none of whom had been faculty before. And this was a great advantage, because it meant that first year that if anything went wrong – with only the four faculty... it might have been their fault. In subsequent years they didn’t think that.

**Ingetraut Dahlberg on the contributions made by information science** (p. 2 of transcript):

What do you consider as the most significant achievement of information science?

Dahlberg: First of all, the creation of thesauri, even faceted ones, and their later standardization. Then the development of computerized information retrieval beginning in 1964. The acknowledgement of necessary relationships in phrasing statements about contents of documents (links and roles, EJC - Thesaurus and similar work at Case Western), work toward mapping and compatibility of indexing languages, today called interoperability; the ambition toward creating ontologies of non-scientific concepts; the attempt to create a Semantic Web and all the present work in this regard of linking data.
Stephen Robertson on early information retrieval work (p. 11 of transcript): Robertson: Well, I need to describe one of the features of the information retrieval scene in UK. I should say that UK was one of the major centers for information retrieval – there was some in the States, quite a lot in the UK, some in France, but very little anywhere else in the world at all. Anyway, the information scene in the UK had the Cranfield project going on – Cleverdon who ran the Cranfield project was regarded as a sort of world authority on this kind of thing – he got involved in the MEDLARS evaluation in ’67 or so, over in the States as well. He was a librarian at Cranfield, what is now Cranfield University, but was then the Cranfield College of Aeronautics, a very specialist college. He had this very specialized library collection, and that’s what he used for the Cranfield project. But he was quite a forceful character, he had very strong ideas, on various things. Jason Farradane, who was the leader of the city course, was also a very strong-minded character, with strong ideas of his own. For some reason these two, Farradane and Cleverdon, did not get on at all. Not at all. They almost hated each other, not quite hate, but professionally they each regarded what the other said as completely bad and hopeless, and at public meetings they’d get up and say so. If one of them was giving a talk, the other would be sitting in the audience just itching to jump up and tell him why he was wrong. There was quite a lot of this.

Michel Menou on work with FAO and AGRIS (p. 5 of transcript): Menou: These four years were exciting. I was spending roughly half of my time in the field and the other half in Rome. Within the unit, which was an informal arrangement within the division, I had only one administrative assistant and one part-time secretary, a wonderful one fortunately. So it was really hard work. The position did not, however, allow for the kind of continuing support of local efforts I had dreamed of. Bureaucratic constraints and the workload left little room for initiatives. Towards the end of my contract there was once again one of these episodic financial crises in the organization. I only had to take note that the eventual renewal of my contract had not been notified within the specified delay. In fact I had more than enough. I needed fresh air.

Bonnie Carroll on being president of ASIS&T (1985) (p. 15 of transcript): Carroll: Well, one of the very interesting things in that time, the concept of email was just beginning. And at the time, there was something… I’m trying to remember, the New Jersey Institute of Technology had something called the [Planet?] system, and they allowed ASIS&T to use that. It was an email system. And there was another one, I don’t know whether it was through ARPA, I’m not remembering... There was another system that was only used mainly by universities, but I actually used the [Planet?] system to communicate with the executive committee of ASIS&T. And it was the first time I, and most people, had ever really used email, and that’s when I got my first exposure of send once to many, and that kind of thing. Well, it was an experiment. And there was no particular continuity after the year that we did it, but it really left… quite an impression on me trying to do that. There was also a lot of change going on in terms of the executive director, you know, ASIS&T’s history, about that time, but…. Well, certainly I hope I did a good job and had an impact on ASIS&T. I remember believing very definitely that the president of ASIS&T should have a kind of a platform and some goals and things like that. It was a time of change, the 1980s, and we looked at the challenges, and I remember an article in the Bulletin, about the challenges….

A Brief History of IST Oral History Work

While the present ASIS&T oral history work will likely be the largest program of interviewing leaders of information science and technology (IST) by the time we complete the current phase of our work (estimated to be 2016), it is not the oldest program in our field. Considerably older is the work done by several universities to record the memories of retiring faculty at their institutions. Exactly how many of these interviews have been done is difficult to know because it requires knowledge of the individual interviewees and the institutions they worked for. Most can be located by searching the online library catalog at a specific institution. A good example is one with Patrick Wilson, University of California, Berkeley, and a well-known leader in our field. A different approach is displayed in the interview conducted by the National Council of Jewish Women, Pittsburgh Section, of
Allen Kent, which interviewed him about his Jewish heritage but included many aspects of his career in information science. (See his IS pioneers page for more details at http://faculty.libsci.sc.edu/bob/ISP/kent.htm.) I have attempted to find as many of these oral histories as I can locate, and they are on a preliminary list that will be displayed on our ASIS&T oral history site (see below for details).

Two other oral history programs, not limited to IST but including many IST leaders, have been going on for at least 20 years and have done great work documenting our field. The first is the Medical Library Association’s oral history project, which has completed well over 50 interviews and is ongoing. Details are at www.mlanet.org/about/history/oral-history-project. The second program is the Chemical Heritage Foundation’s oral history project, funded in part by the Garfield Foundation, which has completed approximately 22 interviews of IST leaders and pioneers. That program is a superb example of how to do oral history well. Details are at www.chemheritage.org/discover/collections/oral-histories/index.aspx. Search using the term information science. In general, most interviews are open for access, and transcripts may be ordered for a small fee. A good feature of this program is that each interview has been indexed by personal names and subjects covered.

The ASIS&T Oral History Program: Current Status

As of September 2014 we have conducted and made 15 interviews available on our new ASIS&T oral history web portal (located at http://infoscileaders.libsci.sc.edu/). This site was first developed as a class project in a course at the University of South Carolina, School of Library and Information Science taught by assistant professor Elise Lewis during fall term, 2013. It was further developed and enhanced by students in a spring 2014 course on digital libraries taught by Karen Miller, a doctoral student at the University of South Carolina. Dr. Lewis made a wise and fortuitous decision when developing the course to use the Wordpress software for constructing the site. The site currently contains information related to the interviews of the following people: Marcia Bates, Michael Buckland, Bonnie Carroll, Ingetraut Dahlberg, Ruggero Gilyarevsky, Marjorie Hlava, Peter Ingwersen, Yves-Francois LeCoadic, Michel Menou, Francis L. Miksa, Charles Oppenheim, Stephen Robertson, Henry Small, Jacques Tocatlian and Thomas D. Wilson.

Every interview posted includes the following: one or more photos of the individual, interview transcript in whole or part (as controlled by the interviewee), CV (which usually contains a good bibliography of major writings), audio/video of the interview (if released by the interviewee), copyright/release statement indicating allowable use of the interview records. Eventually, all materials related to each interview and the work of the project will go into the ASIS&T archives at the University of Michigan Library.

In addition we have another five interviews in process (transcription or approval of transcript by interviewee). We also have a list of desired interviews (mostly waiting on volunteer interviewers) containing 17 names. Most of these individuals are located in the United States, but several are in Europe.

The ASIS&T Oral History Program: Future Plans/Hopes

At a recent meeting, the ASIS&T Board of Directors named a new contractor to manage the ASIS&T website. Seven Heads Design (www.sevenheadsdesign.com/) was selected and will use Wordpress for all aspects of the new site. Wordpress is primarily a blogging software but is very flexible for many different purposes. The oral history site will be integrated into a larger body of historical information about ASIS&T and information science worldwide. This body includes the historic ASIS&T photo archive developed by Trudi Hahn, the Information Science Digital Theatre developed by Bob Williams, the Pioneers of Information Science pages and links to some of the major conferences on the history of IST.

With the help of ASIS&T, particularly SIG/HFIS, and the IS community worldwide we hope to continue adding oral history interviews and other historical information to this site. We particularly want to include more oral histories of women and of people outside the United States in this next phase, which is still in the planning process. In order to do this project we need the help of our chapters, SIGs and individual members. Please join us in this work.
You have probably experienced it too: mention that the library provides data services, and eyes light up. With data management planning and archiving now required by many funding agencies, researchers are seeking guidance in these areas. But many remain unaware of the library’s growing role in data management. Montana State University (MSU) library (http://lib.montana.edu) launched our data services fairly recently, and we are eager to increase campus engagement. In that effort, we have identified three basic strategies: Partner Up, Be Social and Simplify.

### Partner Up

**ACROSS CAMPUS:** There are multiple data management stakeholders at MSU, including the Research Computing Group, the IT Center and the Office of Research and Economic Development (which encompasses the Offices of Sponsored Programs, Technology Transfer and Research Compliance). By establishing partnerships with these stakeholders, we have been able to differentiate and clarify each of our roles. By working together, we hope to present a united and integrated front to researchers who need help with their data. The following are among our most productive partnerships at MSU:

- Data Management Steering Committee: Following the recommendation of the UK-based Digital Curation Centre [1], this committee includes representatives from each of the stakeholders mentioned above, as well as library faculty, a library administrator and research faculty. We meet each semester to discuss broad goals and strategies, including meeting campus needs, providing incentives and structuring library data services within the broader university setting.

- Office of Research and Economic Development: We have created an official partnership between the library and the research offices by appointing the scholarly communication librarian and the data management librarian as dual liaisons to the Office of Research and Economic Development. We have instituted regular meetings and have begun work on mutually beneficial projects. One project currently in development is a weekly, university-wide, email update on research published by MSU affiliates. This project is similar to the Faculty Bibliography Project at the NYU School of Medicine [2] and the Jisc Monitor project [3].

- **IT Center:** The library and IT Center work together to manage and store data. The library provides metadata, discovery and long-term preservation; IT Center provides storage, backup and high performance network access.

---

Sara Mannheimer is data management librarian at Montana State University. She can be reached at sara.mannheimer@montana.edu.
IN THE LIBRARY: Currently, I am the only librarian officially allocated to data management services on campus, and our library does not have its own marketing department. But many potential partners exist within the library whose goals align with mine. By working together, we have been able to initiate outreach efforts that would not be possible otherwise. The scholarly communication librarian has been an especially important ally – we have merged our services under the title of Publication and Data Services, we archive both data and publications in our institutional repository, and we work together on outreach. Other natural collaborators are liaison librarians in research-heavy departments, the events committee and the social media group.

Be Social

In order to achieve community buy-in, we have to establish ourselves within the community. Our library’s ultimate goal is to become a trusted member of the research community at MSU. Since we recently drafted strategic social media guidelines [4] and two faculty members are conducting related research [5], social media was an obvious place for us to begin. We launched our social media presence on Twitter, with plans to expand to Facebook and a blog in the future. This summer, the scholarly communication librarian and I committed to actively tweeting from our existing twitter account, @ResearchAtMSU, with an eye towards engaging the research community at MSU. Our Twitter activity has both strategies and models:

- Strategies: Our focus has been on community involvement, including replying to tweets, starting conversations, monitoring key words and hashtags, retweeting and mentioning others in our tweets. We aim to tweet every weekday.
- Inspirations: Our data services tweets have been informed by Twitter feeds at Duke University (@duke_data), Columbia University (@DataAtCU) and University of Washington (@UWLibsData).

Although our success is still modest, we have doubled our followers using these strategies. One issue with our Twitter pilot is that few MSU faculty are active on Twitter. A recent informal survey showed that of 10 faculty respondents, two used Twitter daily, two weekly, and the rest monthly, rarely or never. This finding suggests that Twitter is only part of the researcher engagement picture. To reach a broader audience, we will need to extend the lessons we have learned while building a Twitter community into future social media campaigns. We will also need to increase our face-to-face interactions through meetings, presentations and instruction sessions.

Simplify

It is in our nature as librarians to want to provide as much information as possible. But for promotional materials at MSU, we’ve tried to streamline our text, providing meaningful talking points and eye-catching visuals. We are looking to engage busy researchers, who may view data management as yet another time commitment. We want our materials to convey at a glance the importance of data management and to position the library as a potential helper and partner.

- Find the right audience: We monitor the grants received by MSU researchers using NSF and NIH search tools [6, 7] in order to gain a better understanding of the work being done at MSU and so we can reach out to principal investigators.
- Tailored content: Our target audience is MSU faculty and researchers. We want to warm their academic
hearts with topics like tenure and promotion, increasing citations and advancing science.

- Quick and cogent talking points: A glance at our promotional materials should convey the basics to researchers who might not read further.

- Harness creative talents: Our university archivist, Kim Scott (http://truearchives.blogspot.com), altered a public-domain comic book cover to promote publication and data services, and our program coordinator, Angela Tate, helped us adapt the image into a brochure. We are always thrilled to draw upon the talents of our colleagues to enhance our outreach efforts.

These outreach activities have shown promise in increasing deposits into our institutional repository, improving participation in our data management plan consulting services and raising overall awareness of the library’s involvement in data management on campus. We would love to hear about your outreach strategies for data services. Contact me at sara.mannheimer@montana.edu or @sara_mannh.

Resources Mentioned in the Article


In the Context of Big Data and Cloud Computing: A Multi-dimensional LIS
A Report from the 12th Conference on Library and Information Science Across the Taiwan Straits
by Yuelin Li and Diane H. Sonnenwald

EDITOR’S SUMMARY
Big data and cloud computing were the focal points of the 12th biennial Library and Information Science (LIS) Across the Taiwan Straits, held in Tianjin, China. The conference was hosted by Nankai University’s Department of Information Resources Management and organized by academic heads of Nankai University and the National Taiwan Normal University. About 270 attendees from universities, libraries and scholarly journal publishing houses from the region participated. ASIS&T funded keynote speaker Diane H. Sonnenwald’s discussion of visioning to explore the impact of future technologies. The Association also sponsored a lunch and presented information on the benefits of membership. Key speakers addressed challenges facing LIS and core competencies of information professionals, the value and management of technical reports and research experiences in the United States in the context of challenges to academia across the Taiwan straits. Conference sessions covered papers, doctoral research and a panel discussion by LIS program deans, chairs and faculty. The 2016 conference is planned for Central China Normal University in Wuhan and will offer further opportunity for interchange and mutual support between straits regions, LIS scholars and ASIS&T.

KEYWORDS
Taiwan
China
meetings
information science
cloud computing
Association for Information Science and Technology

The Library and Information Science (LIS) Conference Across the Taiwan Straits was originally proposed by several of the most famous LIS researchers and educators across the straits. The conference was first held in 1993 at East China Normal University in Shanghai and has been held every other year since then. Every third time the conference is held in Taiwan; otherwise it is held in Mainland China. The conference is now recognized as the most influential LIS academic conference across the Taiwan straits.

2014 Conference Theme and Organization
This year the conference was hosted by the information resources management department in the business school at Nankai University in Tianjin. The theme of the conference was In the Context of Big Data and Cloud Computing: A Multi-dimensional LIS. LIS researchers, practitioners and educators across the straits have experienced the influence of big data and cloud computing technology and incorporated these new concepts and technologies into various dimensions of their research and practice.

Conference organizers were the former chair, Ping Ke, and current chair, Yuelin Li, of the Department of Information Resources Management at Nankai University, and Hao-Ren Ke, president of Chinese Association of Library and Information Science Education and chair of the Graduate Institute of Library and Information Studies.
FIGURE 1. Participants at the 12th Conference on Library and Information Science Across the Taiwan Straits

at National Taiwan Normal University (NTNU). Nankai University is one of top research universities in China. The department of information resources management offers undergraduate, master’s and doctoral degrees in information and library science, and it is ranked as the 7th best LIS program in the latest evaluation conducted by the Ministry of Education of China in 2012. NTNU was the first university to establish LIS education in Taiwan. Today the Graduate Institute of Library and Information Studies (GLIS) at NTNU offers both master’s and Ph.D. degrees. The major research fields at GLIS include knowledge organization, information behavior and information communication.

Approximately 270 LIS faculty members, students and information professionals across the Taiwan straits participated in the conference. This was the highest number of participants in the history of the conference. Participants came from 42 different universities and 17 libraries and agencies across the straits. Universities, libraries, institutes and some leading academic journal publishers represented at the conference included Wuhan University, National Taiwan University, Nanjing University, Renmin University, Peking University, National Taiwan Normal University, National Chengchi University, Shih Hsin University, Sun Yat-sen University, Central China Normal University, Jilin University, Tamkang University, the Institute of Scientific and Technical Information of China, National Science Library at Chinese Academy of Sciences, Tunghai University library, Renmin University library and so on. Figure 1 offers a picture of many of the conference participants.
ASIS&T’s Role

For the first time ASIS&T had a formal role in the conference. Through the Lecture Series Award, ASIS&T provided funding for a keynote presentation at the conference. Throughout its 21-year history, the conference has never before invited a keynote speaker from outside China. ASIS&T made this possible, making history in the development of LIS in China. The keynote presentation was provided by Diane H. Sonnenwald, whose lecture was titled “Visioning Studies: A Socio-Technical Approach to Designing the Future.” The goal of a visioning study is to understand the potential impact of future technologies in complex and dynamic contexts as early as possible in the research and development (R&D) cycle and from this understanding to develop socio-technical recommendations in order to eliminate unintended negative consequences of the technology and facilitate its adoption and use.

ASIS&T also sponsored a lunch at the conference. Benefits of membership in ASIS&T were shared with conference participants via a flyer about ASIS&T published in Mandarin in the conference program, as well as during the introduction of the keynote presentation delivered by Mei-Mei Wu and closing remarks delivered by Yuelin Li.

Conference Sessions

In addition to the ASIS&T Lecture Series keynote presentation, other key speakers included the following:

- Professor Feicheng Ma from Wuhan University who analyzed challenges facing LIS and discussed what makes LIS competitive as a profession and discipline. He described core competences of LIS professionals as well as related theories, rationale, principles, methods, technology and tools that comprise the core content of LIS today.

- Professor Defang He, director of the Institute of Scientific and Technical Information of China, who addressed the importance and characteristics of technical reports as a type of national strategic and basic information resource. He also discussed how to effectively manage these resources.

- Professor Ting-Ming Lai, president of Shih Hsin University, who shared his study experience in the United States and his research experience. He further discussed challenges facing academia across the Taiwan Straits and called for efforts to address these challenges.

The conference also included 18 sessions, three doctoral forums and a panel discussion. During the sessions 84 papers were presented in multiple parallel sessions. These sessions focused on LIS from the IT, resource, user, service, social and management perspectives, as well as LIS education in the digital era. The papers reflected current developments in the LIS area across the Taiwan Straits. In particular, they were concerned with problems and issues in relation to the development of LIS in society and thus identified new frontiers of LIS research. Researchers, practitioners and students shared and discussed their research results and findings.

The three doctoral forums provided an opportunity for doctoral students to present their research and receive feedback on it. Three professors hosted the forums and commented on the presentations, and their feedback helped students to refine the research. Other masters and doctoral students also participated in the discussion and interaction.

The panel discussion was, in fact, a deans/department chairs meeting. The deans, chairs, directors and faculty members (representing their departments) of LIS programs across the straits participated. They shared their ideas about
future conferences, discussed the lessons and experiences in this conference and voted on the site for the next one.

**Future Conferences**

The next Conference on Library and Information Science Across the Taiwan Straits will be held in 2016 at Central China Normal University in Wuhan. The conference will be an additional opportunity for ASIS&T members and others in the region and beyond to exchange ideas regarding challenges and innovations in our research, education and practice. We would like to thank ASIS&T for supporting the 2014 conference.