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## SPECIAL SECTION

### Information Professionals in a Globalized World

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## DEPARTMENTS

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The classic Web 2.0 enterprise...is Google. It’s quick, agile and global. p.18
Thank you for electing me ASIS&T president. I am honored by your selection and very pleased to have the opportunity to work with you in a number of timely and important areas. For my first column, I want to share my presidential address with you, and in this way let you know of a group of initiatives that I think are very important to the future of the society.

These initiatives are concerned with the information professions. To me, the uniqueness and power of ASIS&T comes from the diversity of its members, working in many different environments and using many different titles. What binds us all together is that we are all concerned with that powerful and fascinating triad of information, technology and people; that is, that we are all information professionals. My view is that we should do a better job of acknowledging that we are all information professionals and from there go on to work to strengthen the visibility and rigor of the information professions.

To me and to others before me, there are multiple information professions, but the collective term information professional encompasses all of these. The point here is not to lose the identity of the unique titles – librarian, faculty member, indexer, information architect, etc. – but to bring us together to acknowledge our commonalities and to work together. I was struck at the last meeting of the information architecture group by how easily they used the term information professional, and I think that we can turn things to our advantage if we follow suit.

I believe that all ASIS&T members (and many who are not)
belong to the overarching category of information professionals, and my first request of you is that you acknowledge that and let others know. Figure 1 provides a graphic example – our own past president and executive director of the Coalition for Networked information, Cliff Lynch, proclaiming his status as information professional.

Marcia Bates described the information professions very thoroughly and eloquently in a paper that she gave this summer at the 6th Conference on Conceptions of Library and Information Science (CoLIS 6), based on her work with Mary Niles Maack on the Encyclopedia of Library and Information Science. I highly recommend the article to you, which was published in Information Research and is now available online [1]. In this article, Marcia makes the case that the information professional
disciplines are orthogonal to the traditional academic disciplines; that is, that they apply to the full range of subject matter, as shown in Figure 2, but are distinct from them. The figure shows the spectrum of information disciplines, ranging from the disciplines of the cultural record, associated with the arts and humanities, to the sciences of information, associated with the social and natural sciences. Within this framework, many more sub-disciplines can be identified, as shown. Thus we see arrayed in a logical manner the many areas of interest of information professionals and the many areas in which those information professionals may work, while at the same time we can see clearly not only the links between the information professions and the traditional academic disciples but also the links among the information professions themselves.

There is a wealth of information professions, but we have so much in common. Information professionals come together in ASIS&T, learning from each other and building our field. By giving a name to our common basis, I believe that we can benefit in many ways. First, I believe that each of us as individuals can benefit personally from this affiliation. Secondly, I believe that our society can grow under the aegis of this new focus. And finally, I think that this will result in increased recognition of the information professions that will lead to benefits yet unimagined. I look forward to the day when we speak collectively of the information professions, as here.

Some of you have no doubt heard my personal story – that of a person who knew in the late 60s that she wanted to work with information, but who had considerable difficulty finding a place that would prepare me for that career. With help of an
advisor picked somewhat randomly out of a literature search, I was able to identify several schools that would meet my needs, and I received a wonderful education in information science from the University of Maryland. While I think the situation today is much improved, I still find people interested in information who don’t know how to pursue it educationally, or even that one can. Looking to the future, it seems to me that the ultimate goal is for young children to add “information professional” to the occupations they aspire to, right up there with fireperson and nurse, teacher and lawyer. Representing this goal in Figure 3 are my delightful grandsons, Nate, Alex and Tom.

My request of ASIS&T is that we celebrate and promote our status as information professionals. I have three things in mind:

- First, as individuals, each of us can acknowledge that we are information professionals and use the term liberally.
- Secondly, I would like to see ASIS&T, as an organization, promote the information professions. There is a role here for every part of ASIS&T – the board, SIGs and chapters, and all the committees. I invite each of these groups to consider how we can promote the information professions, and then to do so.
- Finally, my consideration of information professions and our evolution as a discipline leads me to think that it is time for there to be a process for the accreditation of information professional education. Over the last year I have been working with a task force on this topic, and we have produced a white paper laying out the challenges and opportunities of creating such a process. The white paper is available on the ASIS&T website (www.asis.org, under ASIS&T People and News), and I want to thank task force members Ann Prentice, Diane Barlow, Pru Dalrymple, José-Marie Griffiths and Kate McCain for all that they have done. We will go on this next year to a more detailed feasibility study, and we would be most grateful for the participation of those of you who are interested. Stay tuned for more details.

I hope that each of you will carefully consider these initiatives and do what you can to help. I would be delighted to hear from you.

Resources

This issue of the Bulletin, with its special section entitled “Information Professionals in a Globalized World,” is dedicated to the memory of Sue O’Neill Johnson, whose activities to promote ASIS&T’s international outreach touched many lives. She was a co-founder of the SIG/III (Special Interest Group/International Information Issues) International Paper Competition, which provides recognition, publishing opportunities and possible travel to an ASIS&T Annual Meeting to information professionals in developing countries. She also contributed greatly to making the SIG/III InfoShare program, which gives ASIS&T memberships to that same group, a regular and effective effort.

A SIG/III group under the leadership of Caryn Anderson, who edited this special section, has asked recipients who have benefited from Sue O’Neill Johnson’s efforts to contribute articles in Sue’s memory. As a result, we have six reports discussing aspects of information practice and the information professions from different areas of the world: Brazil, India, Indonesia, Iraq, Kosovo and Nigeria. Caryn Anderson and others have also provided considerable background to the section in the Introduction. It includes further information about the contents of the section, a recent report from the ASIS&T International Relations Committee on steps that ASIS&T can take to increase its international presence and cooperation with other societies, the results of a survey of European information professionals (including non-ASIS&T members) on how ASIS&T could be helpful to them and a list of resources for following developments in the information professions worldwide.

Breadth of vision, albeit of a different type, was also the theme of incoming President Nancy Roderer’s inaugural address to the 2007 ASIS&T Annual Meeting. In her speech, which we include, she urged ASIS&T members to think in terms of “the information professions” and “information professionals” rather than in terms of the more specific traditional labels such as “archivist,” “information architect,” “records manager” or “librarian.”

We also have other coverage of the 2007 Annual Meeting in the issue. In addition to our usual photo tour of the ASIS&T awards for 2007, we have the acceptance speech of ASIS&T Award of Merit winner Don Kraft and a report on the plenary address delivered by Anthea Stratigos, CEO of Outsell, Inc.

In our Information Architecture column this month’s author, Eric Reiss of FatDUX, discusses patterns of creative thinking among different types of IAs.

Finally, I would like to thank Caryn Anderson, other SIG/III members who worked with her and the article authors for the special section. Creating and editing a collection of international papers presents a special challenge, and I appreciate their making my job easier.
A Look at ASIS&T 2007

Join us throughout this issue of the *Bulletin of the American Society for Information Science and Technology* for a look at some of the work that members and guests enjoyed at the 2007 ASIS&T Annual Meeting in Milwaukee.

In addition to this photo spread, look for full coverage of the presentation of the prestigious ASIS&T Annual Awards; the acceptance address from the winner of the ASIS&T Award of Merit; and a report on one of the two remarkable plenary addresses delivered at the meeting.
2007 ASIS&T Award Winners

Each year at the ASIS&T Annual Meeting, the Society honors the winners of the prestigious ASIS&T Annual Awards. This year’s winners are featured in this section.

Award of Merit

Donald H. Kraft, recipient of the 2007 ASIS&T Award of Merit, has played a pivotal role in both the field of information science and technology and our society as editor of the Journal of the American Society for Information Science and Technology (JASIST) over the past 22 years. Every field that has any association with information technology has undergone many dramatic changes in these decades. More than any other individual, Kraft has successfully negotiated these changes and shaped and advanced the field of information science and technology through his skilled and visionary leadership of the Journal.

That JASIST continues to reign as a top-ranked journal in quantitative and qualitative assessments is a tribute to Kraft’s leadership. He has steered the journal into electronic publication and more than doubled the number of issues and quadrupled the number of pages published each year. Kraft’s editorship has been characterized by expanded international reach and receptivity to new approaches and areas of research.

In addition to his exemplary stewardship of JASIST, he has continued his pioneering research applying mathematics and logic to the very real problems of library management and information retrieval. Kraft has been in the forefront of defining and prodding the evolution of information retrieval through his own work and has championed information science in general through his enthusiastic voice and support for scholarly publication in the field.

For more about Kraft, his work and his acceptance address to the ASIS&T membership, please see continuing Annual Meeting coverage later in this issue.

Research in Information Science Award

Ophir Frieder, recipient of the 2007 ASIS&T Research Award, exemplifies the very ideals that this award celebrates. Working jointly with scientists at the National Institutes of Health, Frieder addressed the key information technology issue of the genome project – namely the creation of efficient sequencing tools. He developed parallel systems for retrieving similar sequences and for aligning multiple sequences. Both systems significantly reduced the computation time needed for analysis.

In addition, with support from NCR, he was the first to efficiently map all key information retrieval primitives to relational scripts without introducing non-standard operators. Since his approach relied on purely standard SQL, parallel database engines could similarly serve as parallel information retrieval engines. Several NCR commercial data warehouse deployments adopted his approach to support their text processing needs.

He is a named inventor on nine patents and more than a dozen other patent applications. His patents cover inventions in the information processing and communication networks domains. He also co-authored two textbooks: one on distributed information systems and one, now in its second edition, on information retrieval. He likewise co-authored a research monograph on scalable gene sequencing and over 150 articles (including nine in JASIST).

For all these reasons and more, the 2007 ASIS&T Research Award is presented to Ophir Frieder.

Watson Davis Award

Paula Galbraith is the 2007 winner of the Watson Davis Award, an award given in acknowledgement and recognition of lifetime service to the organization and the field. Paula’s dedication and service to ASIS&T truly exemplify the spirit of this award. Since joining ASIS&T in 1981, she has dedicated her time to ensure the success of the Society through participation in the Society’s committees, Special Interest Groups (SIGs), on award juries and as an ASIS&T appointee on numerous panels, task forces and committees.

Paula’s commitment and hard work can be seen in the committee work she has participated in over the years. She chaired the Awards and Honors Committee from 1996-1998 and has continued to lend her time to the committee when called upon. She has also served on both the Education and Nominations Committees. She is an
active member of five Special Interest Groups (SIGs): SIG/ED, SIG/KM, SIG/MED, SIG/NOT and SIG/VIS. In addition, she has worked on numerous awards juries, including the ISI Doctoral Dissertation Award and the Research Award among others. She was a member of the Board of Directors from 1993-1995 and served as board liaison to the continuing education, education, conference & meetings and professionalism committees.

Paula’s service to the Society has also included outreach. She served on the Accreditation Task Force as an ASIS&T representative and was selected as an ASIS&T delegate to the White House Conference on Library and Information Services in 1991.

These are just a few a few examples of the dedication Paula has shown to ASIS&T. After reading letters in support of her nomination, jurors noted a few clear themes: Paula will always lend a hand, she does things on time and she is willing to take on essential tasks that yield little recognition. It is time we recognize and thank Paula Galbraith and her dedication to ASIS&T with the 2007 Watson Davis Award.

**Thomson ISI/ASIS&T Outstanding Information Science Teacher Award**

The ISI/ASIS&T Outstanding Information Science Teacher Award is presented each year to an individual who has demonstrated sustained excellence in teaching information science. This year’s honoree is Peter Ingwersen, research professor at the Department of Information Studies, Royal School of Library and Information Science in Copenhagen. He is a distinguished researcher and scholar whose contributions include, among others, suggesting cognitive approaches to interactive information retrieval theory and coining the term Webometrics to describe quantitative studies of the Web. His list of publications is impressive, his professional service is outstanding and his influence on the field is further enhanced through his teaching.

Standards for this award include evidence of “sustained excellence” and “unique style” – terms that define Professor Ingwersen well, and his influence extends beyond his school and his nation. His papers appear on the syllabi of courses in schools of information and library science throughout the world. His teaching methods are innovative and his style is engaging. He is, above all, a charismatic teacher and a gifted mentor who has made a lasting impact on a new generation of teachers and researchers. Students praise his intellect, his passion for research and teaching, and his ability to inspire those qualities in others. One student has described him in this way: “[He is] the single greatest influence on my research and teaching” and “the standard to which I strive to hold myself as a researcher, educator and mentor.”

**John Wiley & Sons Best JASIST Paper Award**


Blake and Pratt’s beautifully crafted two-part article is an exemplary study of the collaborative information synthesis process. The study design allowed for sustained interactions with participants through which rich data about practice was gleaned. Rather than relying on one method of gathering qualitative data the authors employed an in-depth triangulated approach that reached beyond information seeking to consider analysis and synthesis, key components of scientific work that have been under-explored. The authors practice exemplary scholarship by frequently mentioning how their findings corroborate existing information behavior models and demonstrating scholarly courtesy when reporting findings that differ from those of earlier researchers. The study is further enriched by the collaboration the authors embody between the disciplines of information science and biomedical and health informatics. The robust evidence-based results serve as a highly constructive model for designers of medical and health information systems.

The jury believes that this work by Blake and Pratt is highly relevant and contributes significantly to the field of information science both theoretically and empirically. It is, therefore, most worthy of the 2007 John Wiley & Sons Best JASIST Paper Award.
**Thomson ISI/ASIS&T Citation Analysis Research Grant**

**Philip M. Davis**, Department of Communication, Cornell University, is the winner of the 2007 Thomson ISI/ASIS&T Citation Analysis Research Grant for his proposal entitled, *Does Free Access to Scholarly Articles Increase Readership and Citation Impact?: A Randomized, Controlled, Multi-publisher, Multi-journal Study.* Members of the award jury described this proposal as excellent, using innovative methods to study an important and difficult problem that is considered pressing in the field today.

**Thomson ISI/ASIS&T Doctoral Dissertation Proposal Scholarship**

**Phillip M. Edwards**, School of Information at the University of Washington, is the winner of the 2007 Thomson ISI/ASIS&T Doctoral Dissertation Proposal Scholarship for *Mapping Scholars’ Decision Processes and Factors That Influence How They Publish and Distribute Their Works.* Phillip’s dissertation proposal focuses on how scholars make important decisions about how, when and where to publish their work. One reviewer noted that the proposal is very thorough, well written and well reasoned. Other comments include that the methodology is creative and ties the different data collection methods together to inform the research questions; the proposal is nicely structured and very interesting.

A quote from his nomination letter further elucidates the proposal:

> It is a topic at once very simple – how do scholars decide where and how to distribute the results of their scholarly work – but also quite complex, with a large and growing variety of factors affecting those decisions and in an increasingly complicated communication landscape. Mr. Edwards has chosen to attack this problem with an innovative and robust set of theoretical frameworks from management and social psychology, and an appropriate and cogent set of methods to answer his research questions using those frameworks. We have been struck by the lack of research in this seemingly obvious and crucial area, and his original approach should serve him well in his investigation.

**ProQuest/ASIS&T Dissertation Award**

**W. John MacMullen**, University of North Carolina, Chapel Hill, is the recipient of the 2007 ProQuest/ASIS&T Doctoral Dissertation Award for *Contextual Analysis of Variation and Quality in Human-curated Gene Ontology Annotations.*

The dissertation addresses a novel topic with respect to the increasingly important area of biotechnology enterprise, while addressing the fundamental information science issue of adding value to research literature. The jury was impressed with the attention to detail demonstrated both in the methodology and analysis. The methodology is carefully constructed and makes use of a mixed approach that combines both quantitative and qualitative techniques to assess research literature annotations that link experimental data to research literature for the gene ontology community.

This research contributes to our understanding of annotation behavior within a specific community and has practical implications for practitioners who can use this work to assess their annotation practices.

**Chapter Awards**

**Chapter-of-the-Year**

Two ASIS&T chapters receive the 2007 Chapter-of-the-Year Awards: **Los Angeles Chapter of ASIS&T (LACASIS)** and **New England Chapter of ASIS&T (NEASIST).**

The **Los Angeles Chapter** is cited for its stellar performance in all areas covered by the jury’s assessment criteria. With 25 active local members, LACASIS provides its membership with myriad educational and networking opportunities in the Los Angeles area. Five events organized by LACASIS during the past year were on topics ranging from the practical “Working with Wikis” to the theoretical “Toward Multimedia Surrogation.” With one board member responsible for member recruitment and retention, LACASIS has an impressive array of activities geared toward attracting members from many different professional and geographic areas and keeping them hooked on the Society. The chapter sponsors two awards: the Margaret McKinley Memorial Student Scholarship which provides reimbursement funding up to $1000 for one student to attend the ASIS&T Annual Meeting, and the Contribution to Information Science and Technology Award.
honoring individuals who have made significant contributions to the field. The chapter also co-sponsors the UCLA GSE&IS Lazerow Lecture. This year the chapter moved its award-winning quarterly newsletter, OASIS, from a traditional print/pdf format to a wiki format, enabling registered users to contribute content to it. And finally, by watching expenses and juggling priorities, LACASIS maintains its fiscal health while continuing to offer its members rich local programming and services.

The second winner, the New England Chapter, was equally outstanding in all Chapter-of-the-Year assessment criteria. The chapter sponsored four successful programs with an average attendance of 85. The diversity of the program topics (“The Dawn of the Embedded Library,” “Geographic Information Made Accessible,” “Designing Usable Interfaces” and “Visualizing Wikipedia”) reflects the understanding that not all of its 200 members work in libraries. In support of the Society’s goal to increase membership, NEASIST has begun offering discounted ASIS&T memberships to nonmembers who join the Society at the same time they register for a NEASIST program. The chapter has also shifted the pricing structure of its fee-based programs to provide deeper discounts to ASIS&T members, thus encouraging membership. NEASIST sponsors a Student Travel Award competition: up to two winners receive $750 to cover travel expenses to attend the ASIS&T Annual Meeting. The chapter also supports the International Calendar of Information Science. With these initiatives which nurture and support the information science and technology community in New England and internationally, the chapter exemplifies the adage: “Think Globally, Act Locally.”

Student Chapter-of-the-Year

Two ASIS&T Student Chapters receive Student Chapter-of-the-Year honors for 2007: the student chapters at Simmons College and the University of California at Los Angeles.

Chapter Member-of-the-Year

The Chapter Member-of-the-Year Award goes to two individuals this year who are recognized for their incredible work on behalf of their respective chapters: Caryn Anderson of the New England Chapter (NEASIST) and Dawn Pointer McCleskey of the Potomac Valley Chapter (PVC).

Caryn Anderson’s contributions have significantly increased the visibility of NEASIST within the New England region. Among her many activities, she has introduced students and others to ASIS&T through events and programs, developed connections with sister associations and instilled a strong sense of camaraderie among chapter officers and members. Within the past year, NEASIST has staged four very successful events, including the Dawn of the Embedded Library program at Tufts University. Caryn implemented strategies to bolster and demonstrate the value of ASIS&T membership, such as increasing the member discount for event registration and establishing a process to register new members at a subsidized rate as they register for NEASIST events. Caryn also cultivated strong ties with Simmons College’s student chapter of ASIS&T and with O’Reilly Media, which has allowed the chapter to give event participants free copies
of O’Reilly books, magazines and other materials. Caryn is unselfish in sharing her time and enthusiasm, and she is willing to take on any task to ensure that NEASIST is successful. Her strong commitment to ASIS&T as an organization shines through, whether she’s updating members about events via email, greeting them at the registration table, introducing speakers at programs or responding to questions about the chapter.

Dawn Pointer McCleskey began her rise to Chapter Member-of-the-Year honors at the very time that she joined ASIS&T. In July of 2006, Dawn was asked to take the helm of the Potomac Valley Chapter, the largest chapter in ASIS&T, but one that was experiencing a letdown in programming and leadership. She agreed almost immediately to give it a try, but first she had to join ASIS&T, which she happily did. As the new chapter chair, she found a large group of very helpful advisors who were looking for a leader to follow. Dawn stepped right in and provided the missing link. During the ensuing year, the chapter held five successful programs, attracting a diverse group of local ASIS&T members. Program topics included federated searching, disaster planning, internet policy and women in information networks. Dawn employed a highly collaborative leadership style that took advantage of the deep pool of willing helpers, many of whom are former local and national ASIS&T leaders. With an eye toward rebuilding a strong chapter that would continue on past her tenure, Dawn worked skillfully to involve as many people as possible at many levels and to make them active contributors to the chapter.

Chapter Event-of-the-Year

The 2007 Chapter Event-of-the-Year Award goes to Working with Wikis, the 2006 Fall Workshop presented by the Los Angeles Chapter of ASIS&T. Wikis have become a ubiquitous publishing medium in many libraries, universities and business information centers. This workshop served as an introduction to the format, including potential implementations, pitfalls, maintenance concerns, different platforms and evaluation methods. The featured speaker, Louisa Verma, librarian for the Specialty Coffee Association of America, has created and maintained several wikis, including the Los Angeles Chapter’s OASIS newsletter and one created for this workshop that provided a hands-on experience using wikis for the attendees.

In selecting this workshop as Chapter Event-of-the-Year, the awards committee noted several impressive factors about the event: the program was of high quality and included a meal function, while keeping the registration fee quite low; the selected speaker was appealing to the chapter’s diverse membership; a great deal of information was packed into a compact schedule; and the content was not only practical and useful to attendees, but the session also included the hands-on experimentation element.

Chapter Publication-of-the-Year

The 2007 Chapter Publication-of-the-Year Award goes to Observation of the American Society for Information Science and Technology (OASIS) the newsletter of the Los Angeles Chapter of ASIS&T (LACASIS). The Los Angeles Chapter has been publishing OASIS for more than 40 years. As the times have changed so too has the format of the popular newsletter. After years of successful print publication of OASIS, the newsletter migrated to an electronic format in 2004. As electronic options have expanded, the newsletter’s editors have kept pace as well, adding such delivery options and formats over the years as access to a PDF version, a database driven newsletter and the current wiki format. A sample issue of OASIS is available at http://oasisnewsletter.wikispaces.com/winter2007.

The awards committee noted that LACASIS continues to lead the way in publication innovation. The OASIS format is easy to use and allows for up-to-the-minute content. The publication also illustrates the great potential for the use of wikis to produce publications, record important information and conduct business.

Chapter Innovation-of-the-Year

Two ASIS&T chapters received honors for the Chapter Innovation-of-the-Year: the Indiana chapter and the Los Angeles chapter. The Indiana chapter has been making innovative use of videoconferencing technologies since 2004 for a variety of chapter functions and programs. The technology has allowed the chapter to overcome geographic distances.
and a dispersed membership to engage and reach out to ASIS&T members throughout the state. The Los Angeles Chapter has converted its newsletter, *Observations of the American Society for Information Science & Technology (OASIS)*, to a wiki format, encouraging greater newsletter participation from the membership. In addition, the collaborative nature of the wiki format means that any author can edit the site at any time, rather than relying on a single gatekeeper or adherence to a strict publication schedule.

The two innovations not only received identical scores, but also similar comments from the judges. The judges believe that both chapters have been able to effectively use existing technologies to overcome challenges and enhance services to their membership. The innovations also show both chapters’ strong commitment to reaching out to their membership in order to get more individuals actively involved. These successful projects will no doubt serve as models for other chapters, special interest groups and committees within ASIST.

The International Calendar of Information Science Conferences (http://icisc.neasist.org/) is a nonprofit collaboration between the Special Interest Group/International Information Issues (SIG/III) and the European (ASIST/EC) and New England (NEASIST) chapters of the American Society for Information Science and Technology, with the additional support of Haworth Press.
POSITION DESCRIPTION

Editor-in-Chief

JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE AND TECHNOLOGY (JASIST)

NATURE OF POSITION: The Editor’s foremost responsibility is to ensure the high quality and quantity of papers published in JASIST. Working in collaboration with the Editorial Board, the Editor’s additional responsibility is to set the vision and scope for the Journal in a manner consistent with those of the Society. The Editor solicits high quality papers that fit the scope of JASIST, and oversees the activities of the Associate Editors, Guest Editors, and Editorial Board to ensure that submitted papers are peer reviewed by appropriately qualified persons. The Editor ensures prompt communication with authors to accept or reject manuscripts or to request revisions in response to referees’ reports. The Editor, in consultation with the Society, appoints and renews Editorial Board members for an agreed term ensuring that the Board’s composition is sufficiently international and broad in scope to maintain JASIST’s stature worldwide within its field. The Editor communicates at least annually with the Editorial Board concerning the development of the Journal, editorial strategy, submissions and promotion. The Editor assists the Publisher in promoting JASIST by advising on publicity, and promoting JASIST wherever possible through contacts and at conferences attended. The Editor is responsible for the intellectual workflow (e.g., using the electronic manuscript system, sequencing papers in issues, etc.) and ensuring that the instructions to authors are followed (e.g., that papers are original and have not been published elsewhere; that papers are not defamatory or otherwise unlawful, and that appropriate illustrations and tabular matter, permissions, and assignments of copyright are included). The Editor receives some support for editorial assistance from the Publisher.

BACKGROUND REQUIREMENTS:

a) Education: Graduate degree.

b) Skills Required: The Editor must be a leader who has strong motivational, interpersonal, and communication skills. He or she must be highly motivated to publish a successful journal and must recognize the broad scope of information science and technology. A global perspective, flexibility, and diplomatic skills are required to encourage diverse and creative contributions and to arbitrate controversial issues and points of views. Knowledge of electronic communications and manuscript management systems is essential. The Editor must be familiar with electronic publishing trends, issues of originality and reuse, open access points of view and publishing economics. In additional to oversight abilities, the Editor must be willing and able to delegate responsibilities.

c) Term: The term for this position is five years. A limit of two terms is imposed.

d) Relevant Experience: Substantial knowledge of JASIST and the field of information science and technology and a strong record of scholarly publication. Prior editorship experience and/or editorial board experience with a comparable scholarly, technical, or scientific (refereed) journal is highly preferred.

APPLICATION PROCEDURE

Applications will be considered beginning on March 1, 2008 and until the position is filled.

Send applications to: JASIST Editor Search Committee c/o Richard Hill ASIS&T 1320 Fenwick Lane, Suite 510 Silver Spring, MD 20910, USA

The application package should include, but not be limited to, the following:

- Applicant’s vision of information science: the directions it should take; its hot, warm, and cold areas;
- Applicant’s publishing & editorial experience;
- Reasons why the applicant is specially qualified as Editor-in-Chief of this publication;
- Applicant’s view on current issues and strategies with the publication: backlog, special issues, etc.;
- Applicant’s ideas on ways to improve the readability of the publication: special initiatives, survey articles, etc.;
- Applicant’s ideas on methods to shorten reviewing time and strengthen the review process;
- Experience with electronic manuscript management systems;
- Applicant’s vision of JASIST as an international journal;
- Applicant’s vision of JASIST Editorial Board structure and function;
- Applicant’s understanding of ASIS&T, and conception of the relationship of the Journal to ASIS&T members;
- Other plans for improvement.

The applicant must also provide a detailed resume, listing all past and present affiliations, editorial positions held, and activities in professional societies and technical conferences. Further, the applicant should provide a complete list of publications, honors and awards received, and other information deemed relevant to the Editor-in-Chief position.
The Citation: Donald Kraft has played a pivotal role as editor of the *Journal of the American Society for Information Science and Technology* over the past 22 years. Every field that has any association with information technology has undergone many dramatic changes in these decades. More than any other individual, Dr. Kraft has successfully negotiated these changes and shaped and advanced the field of information science and technology through his skilled and visionary leadership of the *Journal*.

Successive waves of information technologies have swept through information science: (pre-Internet) online databases, online library catalogs, the Internet, the World Wide Web, digital libraries, digital archives and the list goes on. Concurrently, successive waves of methodological practice, including dramatic swings from quantitative to qualitative research methods, as well as a series of hot topics such as user-centered design, information visualization, interaction design and information architecture have swept the field.

That *JASIST* continues to reign as a top-ranked journal in quantitative and qualitative assessments is a tribute to Dr. Kraft’s leadership. He has steered the journal into electronic publication and more than doubled the number of issues and quadrupled the number of pages published each year. Dr. Kraft’s editorship has been characterized by expanded international reach and receptivity to new approaches and areas of research.

Throughout his editorship, Dr. Kraft has had the vision to recognize these trends and encourage a very wide range of authors from many fields to publish in the *Journal*. He has thus promoted the formation, clarification and extension of the field of information science as we move through times of rapid and profound social and technological transformation. As a consequence of his leadership and considerable people skills, the *Journal* has grown substantially under his direction, bringing a wider understanding of the field to the discipline of information science.

His pioneering research has applied mathematics and logic to the very real problems of library management and information retrieval. Dr. Kraft has been in the forefront of defining and prodding the evolution of information retrieval through his own work and has championed information science in general through his enthusiastic voice and support for scholarly publication in the field.

It is our pleasure and honor to present the American Society for Information Science and Technology 2007 Award of Merit to Donald H. Kraft.
adam President, Mr. Executive Director, ASIS&T Board members, fellow members of ASIS&T, distinguished guests, ladies and gentlemen:

Let me first congratulate the other ASIS&T award winners. We all very much appreciate your contributions to the Society and to the field of information science and technology.

I am very honored by this award. Accepting it is for me a very humbling experience. As noted by last year’s winner, Blaise Cronin, with this award you have placed me in superb company, alongside names such as Hans Peter Luhn, Cyril Cleverdon, Manfred Kochen, Bob Hayes, Tefko Saracevic, Jean Tague-Sutcliffe, Gene Garfield and Karen Spärck Jones, among many others who have had such a great influence on me and upon our discipline.

I know that as I mention names of people to whom I am indebted, I will accidentally omit some people, and I wish to apologize for that now.

This award has given me an opportunity to reflect, so please permit me to reminisce a bit. In 1970 I had completed my doctoral degree, marking me as a bit different from many of you because it was in industrial (or what my eldest daughter calls imaginary) engineering. I was just starting my career as an academic when I had the opportunity to attend the Conference on Interlibrary Communications and Information Networks at Airlie House in northern Virginia. Many library and information science luminaries were in attendance, including Joe Becker, who chaired the conference; Pauline Atherton Cochrane, then president of the newly renamed ASIS; and Henrietta Avram, among many others. For this newcomer to our field, this was a fantastic introduction to my newly chosen vocation.

Also in attendance at that Airlie House conference was my mentor, Ferd Leimkuhler of Purdue University, who first piqued my interest in library operations research and bibliometrics. He has always been an inspiration to me, and I believe that much of whatever success I have had as a teacher and researcher is due to him.

I also remember the University of Chicago’s 1972 summer workshop, where Don Swanson and Abe Bookstein brought together several researchers in library operations research. It was sheer joy for me as a young professor to see how others employed mathematical models to be applied to many different library problems. Mike Buckland was at that workshop demonstrating how library operations research could be applied in real library situations. By this time I was hooked.

I have learned so much from so many, and I am grateful for the friendship and collegiality that I have found in this great field. I was given the prestigious ASIS&T Research Award, in large part with their help and support. Moreover, I am pleased that I have been among some of the early researchers who applied fuzzy logic to the area of information retrieval systems – fuzzy sets certainly has its place in this area.

I am especially indebted to the late Larry Heilprin, who contributed so much to how I personally perceive our field. I have been complimented by being compared to Larry. I know I am not near his equal, but I am hopeful of some day getting closer, even as I continue my research upon retirement from LSU in May.

I know that I am being honored in part here today because of my many years as editor of the Society’s journal. That editorship has given me a unique opportunity to see the evolution of our field as it has been reflected in JASIST. In the early days, when the journal was called American Documentation, it covered such topics as the definition of information, classification and indexing theory, as well as technologies such as microfilm. By the 1960s it included library automation and bibliometrics and its companions of informetrics and scientometrics. In the 1970s, as I began my professional career and the Journal became the Journal of the American Society for Information Science or JASIS, new topics appeared, including library operations research, online public access catalogs, users and uses of information systems, systems evaluation and information retrieval. Topics such as online information retrieval, digital libraries, electronic publishing, webology and webometrics and visualization came to prominence...
in the last two decades. Today, we see JASIST moving to modern conceptual issues that include ontology and taxonomy, metadata, knowledge management, user centered and interaction design, information architecture and social networks. We have also seen articles using qualitative analysis as well as those that use quantitative analysis. I have been privileged to have been able to help move the journal to include articles about some of these advancements.

Moreover, I am grateful to the previous editors of our journal, especially Art Elias, who helped me get started as a JASIST author, and Charlie Meadow, my predecessor. I recall one time long ago when I was quite annoying, kvetching to Charlie about the refereeing of one of my articles. Thankfully, he overlooked this, adding a third referee so that the article, after much revision, was eventually published. Later, I apologized to Charlie, but his response was to invite me to serve on his JASIST Editorial Board, and later to become an associate editor. I am grateful that I have been able, apparently, to uphold the quality of the Journal that in 1985 I inherited as editor.

Let me also point out the physical changes, as well as the quality changes, in the Journal, including going from six to eight to 10 to 12 and now to 14 issues a year, the editorial changes, the fantastic covers, the addition of special topic issues for a time, and going from stapled issues to thicker ones with spines, are all due to a fantastic Editorial Board – just look at the list in any issue of JASIST to see what leading scholars they all are. In addition, our Society, and the Journal, have benefited by having a great publisher (John Wiley & Sons, Inc.), and a supportive Society. Thanks are also due to the authors for submitting articles and to the referees for reviewing them. JASIST could simply not do without all of their contributions.

A word about the publisher is due. First, John Wiley & Sons has recently acquired Blackwell Publishing, moving their peer-reviewed journals to Wiley-Blackwell. This promises an even brighter future for JASIST. Second, the publisher has moved to an electronic submittal system, enabling a more efficient way of submitting and refereeing the articles. Of late, Wiley-Blackwell is looking into the relationships between open access journals and citation rates and plagiarism detection, among other good things. Moreover, the publisher has been very supportive of me as well as of the Society, offering a cash award for the Best JASIST Paper Award, a banquet on Wednesday night for the Society and improving the financial benefits from the journal that accrue to the Society. The publisher has also done fun things like the SIG CON 20th Anniversary Special Topics issue. In addition, the publisher has provided the Society with its digital library and has recently gone retrospective back to the first volumes of JASIST.

I am grateful to the many students, including my editorial assistants, and colleagues at LSU in the computer science department and the School of Library and Information Science, who have helped me along the way, some even deeming it worthwhile to publish with me. I want to specifically thank three colleagues who were co-authors with me – Charlie Meadow, Bert Boyce and Carol Barry – for their forbearance, especially when I attempted to be humorous.

Finally, I want you to know how fantastic ASIS&T is. While a bit small when compared to other information societies, we offer so very much. We have people who are active and who contribute so much to the Society. This includes Watson Davis Award winners such as Lois Lunin, who still does the Perspectives section for JASIST and who helps make being editor worthwhile. Consider, too, the presidents of our Society, including Candy Schwartz, who first conceived the ASIS&T digital library that I was privileged as president to be of some assistance in moving closer to that reality. I also note that many of the people who have been active in ASIS&T have served the Society in more than just one way. Because of all of them, I can easily say that I have stood on the shoulders of giants.

I am also very grateful to my family, my two daughters and my lovely, wonderful wife, Linda, who has been called a saint. Let me conclude by saying that ASIS&T is a fantastic professional society. We have benefited from great scholarship and good leadership from the Board and our executive directors, including, of course, Dick Hill. ASIS&T brings together people from all over the map in terms of various disciplines. Incidentally, whether we call our educational academic units I-schools or dare to use the dreaded L word seems to me to be but an intellectually interesting exercise. The real issue is the continuance of the interaction of these disciplines to do research and to educate the next generations in order to solve the problems facing information professionals today and in the future.

I have felt that one could find an analogy of a library scientist to a
person in a dark room looking for a black cat, and an information technologist to a person in a dark room looking for a black cat when there is no cat. An information scientist, on the other hand, is analogous to a person in dark room looking for a black cat when there is no cat, but who is occasionally heard to be shouting, “I’ve got it, I’ve got it!”

Also, when thinking about ASIS&T, consider some of the plenary speakers we have had at recent ASIS&T Annual Meetings, including Brewster Kahle, Tim Berners-Lee and Susan Dumais. Consider, too, the summits, the SIGs, the chapters, the seminars, the workshops, the tutorials, the sessions at Annual Meetings – it’s all good. I am proud to be a part of it all. I have been lucky enough to have been able to participate and serve.

I encourage all of you to get and to continue to be active in ASIS&T – the rewards are there for the taking. For example, I was once given the privilege of being Dr. Chaos as a panelist as part of a SIG/CON session a few years ago: How cool is that? And, now, to be given this award is beyond my ability to express how honored and grateful I am. Thank you.
The co-founder of the leading research and advisory firm for the information and publishing industry discussed the trends and impacts of social computing and Web 2.0 at the Annual Meeting’s first plenary session. Anthea Stratigos is the CEO of Outsell, Inc.

Web 2.0 is happening, Stratigos said, because of a convergence of individual traits, social and technological forces. She showed a slide outlining cycles of disruptive technologies, beginning with the printing press in 1455, and extending up to 2007. The changes are coming faster and faster. These changes are creating “shift,” and “shifts happen,” as she illustrated with a YouTube video by the same name [1]. These are among the points made in the video: China has more honor students than North America has children. The Labor Department says the average person will have between 10 and 14 jobs by age 38. We’re currently preparing students for jobs that don’t exist, using technologies that haven’t been developed.

While in the Web 1.0 world of 1993 a New Yorker cartoon [2] proclaimed, “On the Internet nobody knows you’re a dog,” today’s Web 2.0 features “dogster.” Not only does Web 2.0 know you’re a dog, but it knows your likes and knows the dog next door. It’s all about social interaction, she said. It’s a place where people, content and work come together to share. Individuals, consumers, business professionals and enterprises use Web 2.0 technologies to manifest themselves with social networks, mashups, user-generated content, community-sharing professional networking, expert networking and “crowdsourcing,” the use of a large group – sometimes the general public – to solve problems or develop products or simply converse and entertain.

The classic Web 2.0 enterprise, Stratigos said, is Google. It’s quick, agile and global. Web 2.0 users want to be able to “unchain their charts,” to have their content without containers and take it with them. Standards for avatars are being developed so that Second Life participants can share with people in other virtual universes. Marketing is shifting too. There are new ways to gather customer input, such as Facebook, Second Life and even teen panels using cell phones, all doing what used to be traditional market research. LEGO is doing product development with its power users who have early access to designs. Ducati – an Italian motorcycle company – no longer has a marketing department, she said. It uses the web instead.

Growth in the established parts of the publishing and information provider industry is stalling in response to these events. They create pressure on costs, consolidation and new product development. Publishers are playing with new revenue/business models. Whether it’s bundling, licensing, syndication, subscription, advertising or pay-per-view, the fundamental way publishers get revenue hasn’t really changed. How do publishers move their content into a digital environment and deal with these revenue sources? Advertisers want more options, so demands on publishers are increasing. A number of revenue models have emerged online, including subscription (Nature Publishing Group), pay-per-answer (InnoCentive), pay-per-view (ScienceDirect), pay for software and tools (Solucient) and
the “freemium,” which features free basic features and premium charges for advanced features (Flickr).

Stratigos said these developments have affected the library environment, too. Information professionals are moving out of librarianship into other areas. There are opportunities to do more with less, but library technology adoption is not keeping pace with the curve. Libraries generally haven’t the resources to be on the leading edge, and the ability to work with these technologies isn’t always in place when needed. Still, libraries are playing with new experiences. She showed a screen from eVolver, the Denver Public Library’s space for teens, which lets the library meet teenagers where they are, instead of making them come to the library.

So, what does it all mean? Stratigos said some believe Web 3.0 or 4.0 will be 3-D. This development will have vast implications for how we think about seeking and using information. She said we’re living in “an extreme period of time”: it’s scary and it’s exhilarating. Our industry is going through the same sort of shift many other industries have gone through before.

Ubiquity and price pressure combine to produce product commoditization, creating a permanent shift in customer habits. For example, the news industry has changed because the way people get their news has changed. Her 14-year-old gets his information from Comcast. But he doesn’t know the authority of what he’s getting. Stratigos gets it from the next day’s San Francisco Chronicle – she has more information, but she’s late. The 14-year-old is the power user. Partners become competitors; competitors become partners. The news industry is trying to work with Yahoo and Google, something, she said, that wouldn’t have happened five years ago.

A new order emerges as industries respond to the changes; they go from product-centric to market-centric. Firms compete on scale, differentiation/focus or value-added. Marketing discipline emerges. Google and Yahoo are our Wal-Mart and Target. Thomson is our Home Depot or Office Max. Boutique information firms specialize, just as in retail.

It’s essential for businesses to become agile in their mindset and focus. They need to be able to change rapidly and develop new processes for developing information services and getting them out the door. To be successful, an information business needs to watch trends, differentiate what it does and be a digital marketer delivering a digital experience.

Stratigos concluded by pointing out several things to watch. First, follow the money. Where money moves is where industries move. Watch consumers in general, especially their shopping habits. What happens with consumers around the web will show up in two years or less, and how consumers behave will drive how professionals behave. Think globally; we tend to be focused on the United States, but we should watch what’s happening in the world around us, especially in China and India.

Resources

Resources Mentioned in the Article

Websites Mentioned in the Article
Dogster: www.dogster.com
Ducati: www.ducati.com
eVolver: http://teens.denverlibrary.org/
Facebook: www.facebook.com
Flickr: www.flickr.com
Google: www.google.com
InnoCentive: www.innocentive.com
LEGO: www.lego.com
Nature Publishing Group: www.nature.com
Outsell Inc.: www.outsellinc.com
Science Direct: www.sciencedirect.com
Second Life: www.secondlife.com
Solucient: www.solucient.com
Yahoo: www.yahoo.com
Introduction
by Caryn L. Anderson, Editor of Special Section

This special international section of the Bulletin is dedicated to our dear friend and colleague Susan O’Neill Johnson, who passed away last fall. Sue contributed tremendously to ASIS&T’s efforts to reach out to librarians and information professionals in developing countries and provide them sustained encouragement, support and opportunities. She helped institutionalize the InfoShare Program of Special Interest Group/International Information Issues (SIG/III) and enthusiastically raised money for it. She co-founded the SIG/III International Paper Contest and worked very hard to initiate its travel grant program, all of which have richly expanded the ASIS&T community of colleagues, including the key authors of this special section. We are honored to dedicate these words, and the spirit they represent, to Sue’s memory.

This introduction to the special section includes four topics to help focus our attention on information professionals in a globalized world:

- Visions from a Globalized Society
- ASIS&T International Relations Committee Report
- Survey of European Information Scientists
- Global Information Resources

Caryn L. Anderson is doctoral studies program manager at the Simmons College Graduate School of Library and Information Science in Boston, Massachusetts, USA. She can be reached by email at caryn.anderson<at>simmons.edu.

Visions from a Globalized Information Society
by Caryn L. Anderson

On behalf of the officers and members of the ASIS&T Special Interest Group on International Information Issues (SIG/III) (www.asis.org/SIG/SIGIII/index.htm), I am pleased to share with you the perspectives of some of our fellow information professionals and ASIS&T colleagues from around the world. These essays represent a small window into a vast and diverse information-focused community. As our world becomes more globally interconnected, it is increasingly important to be aware of how our information science research and practice can affect, engage and benefit from information activities and environments on every continent.

We open with a brief outline of strategies approved by the ASIS&T Board of Directors in October 2007 to expand and integrate ASIS&T’s global sensibilities and engagement. These strategies were proposed and will be executed by the newly formed ASIS&T International Relations Committee, which was established in 2006 by the ASIS&T Board of Directors and charged with advising the Board on ways to increase ASIS&T’s international presence. With ASIS&T’s global commitment thus established, we turn to our colleagues around the world.

Seven winners of the SIG/III International Paper Contest and InfoShare awards profile specific initiatives and the general information climates in their regions. It is their hope, and ours, that readers will gain stimulating insight into the ways in which information problems around the world are both similar and unique. If readers are inspired to learn more or to reach out to partner with colleagues in other countries, we will consider this special section a great success.
Dr. Goswami and P.K. Jain discuss challenges faced by libraries in India as they work to remain relevant in an increasingly technology-based culture. Maria José Vicentini Jorente describes the ongoing activities and results of the New Technologies in Information Group in Brazil, which is focused on improving digital inclusion initiatives in schools and social programs through comprehensive investigation of cognitive behavior, theories of education and information technology adoption strategies. Ala’a Al-Din J. Kadhem Al-Radhi is an Iraqi national currently working in Jordan. He presents a road map for crafting new models of distance learning to help rebuild and strengthen the Iraqi higher education systems so that Iraqi citizens can develop the knowledge and skills to compete in an increasingly technology-driven world economy.

Besim J. Kokollari works for the national and university library of Kosova and is engaged in library and information science studies through a variety of institutions in North America and Europe. He discusses the significant infrastructure problems for Kosova libraries, ranging from the practical (many libraries were burnt down and not rebuilt) to the political (Kosova is currently still administered by the United Nations Mission in Kosovo (UNMIK) and therefore not eligible for much of the financial and technical assistance that sovereign nations are). Ifeanyi Njoku is a librarian at the Central Bank of Nigeria and discusses infrastructure challenges for libraries in Nigeria and the difficulty of operating in an atmosphere where information is often perceived as a commodity to be owned, rather than a public good to be shared – a perception reinforced by low literacy rates. Liauw Toong Tjiek (Aditya Nugraha) concludes our abbreviated world tour with a discussion of the low credibility of library and information scientists in Indonesia, aggravated by a deficiency in the volume of quality educational and professional certification. He places the current condition in an historical context that enables us to view the position and potential of information professionals in Indonesia (and, by extension, the entire profession) from a holistic perspective. In this way, we are inspired to see our profession as part of a larger continuum, both geographically and historically – a vantage point that motivates us to explore, engage and contribute to a mutually beneficial future for all of our information colleagues.

Now that we are enlightened and motivated, we present a brief discussion of a survey conducted in 2007 of European information professionals. The summary of the full report, conducted by Diane Sonnenwald and Cassidy Sugimoto, highlights the areas in which ASIS&T can provide the most benefit to our European colleagues. The report suggests that an ASIS&T conference in Europe and the coordination of a Europe-focused information publication and mentoring program would be of greatest value. The survey also serves as a model for similar explorations that could be conducted in other regions.

We conclude with a brief list of global information resources that provide an excellent starting point for exploration and engagement in the global information professional community. We hope that this special section will leave you thoughtful about the expansive and diverse network of professionals contributing their knowledge and expertise to the information age and motivated to learn more, establish partnerships and share this information with your colleagues.

Many thanks to Michel Menou, Terry Plum, Abebe Rorissa and Dangzhi Zhao for their assistance.
ASIS&T Strategic Responses to a Globalized Information Society: Excerpts from the Report of the ASIS&T International Relations Committee (IRC)

Discussions among IRC committee members, review of the global information scene and feedback from ASIS&T members to a special call from the IRC and to a survey of European colleagues has led the committee to recommend calling on other information science-related societies around the world to jointly establish a global alliance of information science that would facilitate interaction among them, reciprocal benefits and global representation.

Information professionals work with increasingly international resources and within organizations that are increasingly involved in, or dependent on, global markets and interactions. These organizations are often multinational themselves. The constituents they serve, or indirectly reach by posting information on the public Internet, are also multinational and multicultural. Legislation, regulation mechanisms, technologies and policies related to information activities are increasingly shaped by international influences.

The international dimensions of information work can no longer be treated as a marginal elective interest. In order to remain informed and relevant in an increasingly global society, ASIS&T members need and want to be able to expand their networks to learn from and partner with professional colleagues in other countries. Without coordinated efforts of information science researchers and practitioners, influence on national, regional and supra-national information policy is limited.

ASIS&T shall make a clear and firm commitment toward the stepwise development of an effective meta-organization among the professional and scientific societies that are active in whole or part of the broad information science field. This meta-organization could be given a neutral name such as the Global Alliance of Information Science. The IRC recommends that ASIS&T take the initiative in calling other societies to join in its creation. The following would be among the aims of the alliance:

- Facilitate regular interaction among the partner societies
- Facilitate the identification and implementation of possible joint activities
- Facilitate the sharing of resources
- Thus expand benefits for members

The following are short or medium term activities that could occur:

- Co-sponsoring of events
- Sessions at each other events
- Joint events
- Joint publications
- Wider authorship for publications and events
- Wider audiences
- Joint representation at international meetings
- Joint advocacy

After initial contacts among partners, the Global Alliance should seek to implement a few specific activities of high practical relevance within a couple of years. Among areas to be considered might be future directions in information science education, lifelong learning, certification of professional experience, international programs using distance education or international mobility of information professionals and issues considered within the follow-up process of the World Summit on the Information Society (WSIS). Innovative approaches to world conferences, building up from the local level and linguistic areas to a global level, might prove attractive to potential participants since no world congress on information science has taken place for a long time.

ASIS&T plans to establish relations with scientific and professional societies, whether national or international, which are active in the broad field of information science, with a view to possibly forming the proposed Global Alliance. We hope this partnership with our global information colleagues will enable us to explore, engage and contribute to a mutually beneficial future for all of us in the information age.

To contact the International Relations Committee with comments and suggestions, please email Michel Menou (michel.menou<at>orange.fr) and Kendra Albright (K.Albright<at>Sheffield.ac.uk).
Survey of European Information Scientists: European Information Professionals Identify ASIS&T Benefits that Would Be of Value
by Diane H. Sonnenwald, Caryn L. Anderson and Cassidy R. Sugimoto

The ASIS&T Membership Committee was asked by the Board of Directors to develop strategies regarding how to attract and retain new members outside the United States. In particular, the committee was asked to identify benefits and services of value to potential international members. During the Membership Committee meeting at the November 2006 ASIS&T Annual Meeting, we volunteered to address this issue for Europe. The results of our investigation clearly point to a number of potential ASIS&T benefits that European information professionals would find of value and which would encourage them to become members. Holding the Annual Meeting in Europe periodically, providing mentoring opportunities and including more coverage of European issues in publications (newsletters or in the Bulletin) top the list of recommendations. The investigation also generated a list of regional professional associations that ASIS&T may be able to partner with in the future as strategies are developed to provide and strengthen these benefits.

A total of 68 people from 16 European countries completed the survey (Table 1). Although the responses are not equally distributed across the 16 countries, no single country dominates the responses. Of the respondents 61.8% are not currently ASIS&T members. Respondents are both library and information science professionals. The two largest job categories represented in the survey are university teacher and researcher (58.8%) and library professional (17.6%). The next two largest job categories are information science professional (7.4%) and student (7.4%).

The most frequently mentioned suggestions regarding activities to attract European members are listed in Table 2. The top-ranked response, holding an ASIS&T Annual Meeting periodically in Europe, was mentioned by respondents from every job category and from 13 (out of 16) countries. These are among the respondents’ comments:

- Why not do as, e.g., ACM SIGIR [does. Holding a conference] in America one year and in Europe the next? And soon Asia will be the third continent in the mix.
- It would be really nice to have an ASIS&T meeting in Europe from time to time…say every three years would be great.

Holding a conference involves a financial risk; however, it could be possible for ASIS&T to hold an annual meeting in collaboration with other European professional associations. In addition, some European countries, such as Sweden, as well as European universities have special grant funds to support international conferences held in their countries or at their universities. Partnering with local ASIS&T members who are willing to apply for these funds can reduce the financial risk of an annual meeting in Europe.

Regarding mentoring and more publication of European information issues, further study is needed to identify what type of mentoring is most needed. For example, is mentoring between junior and senior colleagues in academia or in practice most needed?

### Table 1. National affiliation

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of respondents</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Belgium</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Denmark</td>
<td>5</td>
<td>7.4</td>
</tr>
<tr>
<td>Finland</td>
<td>8</td>
<td>11.8</td>
</tr>
<tr>
<td>France</td>
<td>9</td>
<td>13.2</td>
</tr>
<tr>
<td>Germany</td>
<td>3</td>
<td>4.4</td>
</tr>
<tr>
<td>Iceland</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Italy</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Portugal</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Republic of Ireland</td>
<td>3</td>
<td>4.4</td>
</tr>
<tr>
<td>Slovakia</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Spain</td>
<td>10</td>
<td>14.7</td>
</tr>
<tr>
<td>Sweden</td>
<td>13</td>
<td>19.1</td>
</tr>
<tr>
<td>Ukraine</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>9</td>
<td>13.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
TABLE 2. Top-ranked suggested activities for ASIS&T to attract European members

<table>
<thead>
<tr>
<th>Activity</th>
<th>Total Number of Suggestions</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual conference in Europe</td>
<td>35</td>
<td>38.9</td>
<td></td>
</tr>
<tr>
<td>Mentoring</td>
<td>9</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>European newsletter</td>
<td>8</td>
<td>8.9</td>
<td></td>
</tr>
<tr>
<td>Publish in many languages</td>
<td>5</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>European networking</td>
<td>5</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>Active local/national chapter</td>
<td>4</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Help editing papers</td>
<td>3</td>
<td>3.3</td>
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Certainly there are other good suggestions that emerged from this study, and the full report is available for download from the ASIS&T website: www.asis.org/Membership/2007_ASIST_Europe_survey.pdf

Global Information Resources

A variety of resources and reference materials are useful for staying connected with the global evolution of information science. The following is a brief list of excellent places to start. We encourage you to explore these resources and regularly consider how information science research and practice might affect, engage and benefit from the global community of information professionals.

International Calendar of Information Science Conferences

The International Calendar of Information Science Conferences (http://icisc.neasist.org/) is a nonprofit collaboration between Special Interest Group/International Information Issues (SIG/III) and the European (ASIST/EC) and New England (NEASIST) chapters of the American Society for Information Science and Technology, with the additional support of Haworth Press.

More than 500 conferences hosted by organizations in 75 countries on all continents were listed in the past year. With more than 9000 visits to the site each month, more than 80 countries are represented.

If you work in the information sciences and related disciplines (libraries, archives, museums, information and communication technology, telecommunications, etc.), be sure to stay up to date on the latest opportunities to learn and share your work throughout the world by regularly checking (RSS available) and posting your events in the calendar. Help colleagues by registering the conferences you are aware of, if they are not listed.

InformationR.net

Tom Wilson has established a terrific set of free electronic resources related to research on information management, information science and information systems (http://informationr.net/). These are of particular note:

- **World List of Departments and Schools of Information Studies, Information Management, Information Systems, etc.** – useful for contacting colleagues for collaboration or experts for consultation

- **Digital Information in the Information Research Field: A Guide to Freely Accessible Journals and Newsletters** – useful for information professionals who may not have the resources to purchase commercial publications

Please note that Tom Wilson has been providing this excellent service for many years on a pro bono basis. We at SIG/III encourage you to offer him a donation if you find his resources useful.
Information Societies around the World

The International Calendar of Information Science Conferences maintains a list of international resources (http://icisc.neasist.org/resources.html), which includes many societies and networks of information professionals. Below are listed a few regional associations that give a sense of our colleagues around the world. Readers are encouraged to explore the full list, which includes more regional associations as well as international and topically focused organizations, and to submit additions.

- ABECIN, Associação Brasileira de Educação em Ciência da Informação, Brazil/Brazilian Association of Education in Information Science: www.abecin.org.br/portal/index.php
- ADADB, Association pour le développement des activités documentaires au Bénin/Association for the Development of Documentary Activities in Benin: www.adadb.bj.refer.org/
- ADBS, Association des professionnels de l’information et de la documentation/French Association of Professionals of Information and Documentation: www.adbs.fr/site/
- AIDA, Associazione Italiana per la Documentazione Avanzata, Italy/Italian Association for Advanced Documentation: www.aidaweb.it/
- Aardvark – Asian Resources for Librarians: www.aardvarknet.info/user/aardvarkwelcome/
- ASBAD, Association senegalaise des bibliothecaires, archivistes et documentalistes/Senegalese Association of Librarians, Archivists and Documentalists: www.ебad.ucad.sn/
- CAIS, Canadian Association of Information Science/L’Association canadienne des sciences de l’information: www.cais-acsi.ca/
- CILIP, Chartered Institute of Library and Information Professionals: www.cilip.org.uk/default.cilip
- DGI, Deutsche Gesellschaft für Informationswissenschaft und Informationspraxis e.V./German Society for Information Science and Practice: www.dgd.de/
- HID, Hrvatsko informacijsko i dokumentacijsko društvo, Croatia/Croatian Association for Information and Documentation: http://public.carnet.hr/hid/
- ILISKMA, Indian Library, Information Science & Knowledge Management Association: No working URL found on December 11, 2007
- INCITE, Associação Portuguesa para o Desenvolvimento da Informação Científica e Tecnica, Portugal/Portuguese Association for the Development of Scientific and Technical Information: www.incite.pt/
- LIASA, Library and Information Association of South Africa: www.liasa.org.za/
- NIWA, Namibian Information Workers Association: No current URL found on December 11, 2007
- ÖGDI, Österreichische Gesellschaft für Dokumentation & Information/Austrian Society for Documentation and Information: www.oegdi.at/
- SEDIC, Sociedad Española de Documentacion e Informacion Cientifica, Spain/Spanish Society of Documentation and Scientific Information: www.sedic.es/
- SKIP, Svaz knihovníku a informacních pracovníku České republiky/Association of Library and Information Professionals of the Czech Republic: http://skip.nkp.cz/
- TLA, Tanzania Library Association: www.tla.or.tz/index.htm
- TLS, Tekniska Litteratursällskapet/Swedish Society for Technical Documentation: www.sfis.nu/
- SVD/ASD, Schweizerische Vereingung für Dokumentation/Association Suisse de Documentation/Swiss Association of Documentation: www.svd-asd.org/

Multilingual ASIS&T Information Sheets

ASIS&T has prepared information sheets in 14 languages: Arabic, Chinese (Simplified – Mainland, Traditional – Taiwan), English, French, German, Greek, Indonesian, Polish, Portuguese, Romanian, Spanish, Swedish, Turkish. Versions of the information sheets can be downloaded from the ASIS&T website: www.asist.org/infosheets/
Information professionals working on the Indian subcontinent face many challenges. As libraries in the region struggle to develop new models of service and operation to meet the needs of the current information explosion and the ever increasing cost of information, they face innumerable barriers. In the face of the emerging trend of economic globalization and the information technology (IT) revolution, many Indian and South Asian library professionals recognize the current realities and the need to adopt many of the strategies of their western colleagues in order to provide the information services that will enable their fellow citizens and countries to be competitive on the world stage. The barriers they face range from insufficient technological capacity and antiquated curricula for training library professionals to inexperience with strategies for managing digital collections and the effects of government infrastructures that prohibit or restrict the development of library networks that would otherwise expand user services and resources.

Global Information Management Trends Come More Slowly to South Asia

Libraries all over the world are now shifting their emphasis. There is obviously a shift from print to digital/electronic collections and services. There is also a visible transition from an operations model of “repository maintenance” to a user-centered approach to library services. In western countries, libraries have moved from a holdings or ownership ideology to an access strategy based on content subscriptions accessed via the Internet. There are many reasons for these changes. Advances in digital content and web-based services have improved the tools for development of digital libraries and repositories as well as enhancing the ability for libraries to form consortia and networks to share resources. But libraries are also moving in these directions because they are trying to meet the expectations and needs of newer highly digital and Internet based user populations. There is also a strong economic incentive to share resources with other libraries and focus on virtual access rather than physical storage.

Many librarians on the Indian subcontinent are aware of these trends and have a sincere desire to transition into new models of information service. But a majority of the libraries in South Asia still give maximum importance to printed documents and are satisfied to remain focused on print collections, only providing services to users that depend mainly on those traditional collections. There are a few institutions of higher education and research establishments, especially in the science and technology fields, that have developed modern information technology-based libraries with...
digital collections, but the pace of change is very slow. There are many reasons for this.

**Barriers to Change**

*Lack of IT proficiency.* In developing countries, library and information science (LIS) professionals operate at various places on a continuum of primitive to sophisticated services, though wherever they are it is usually a struggle. Library automation activities, using specialized software, are picking up in special, research, university and academic libraries. Many of the libraries in the science and technology and academic sectors are switching from traditional paper-based services to online and e-generated library services. They are beginning to use e-mail, CD-ROMs, LANs and machine-readable catalogues for resource sharing.

However, there are certain specific problems that act as deterrents to the libraries of South Asia region for adopting computerization of services:

- low computer literacy among students of LIS;
- lack of basic knowledge of hardware and software among working professionals; and
- inadequate funds for purchase, installation and working with computers in school, college and public libraries.

Since hardware costs have come down drastically, libraries located in smaller towns are now feeling that computerized services are within their reach. But there are three important aspects that must be considered when planning library automation: hardware and software, communication facilities and manpower. South Asian countries continue to grapple with the problem of communication infrastructure and manpower development for libraries. For example, schools and libraries in the rural areas do not have proper infrastructure (internet connectivity and sometimes power), and they are therefore still working in a traditional mode. The key issue related to manpower is the low computer literacy rate among both students and professionals. Because of inadequate training in LIS schools and poor professional networking and development opportunities in technology for professionals, the pool of librarians skilled in technology is very low. As a result, a large number of libraries have started using computer professionals instead of librarians for many key library functions.

**LIS Education.** The electronic environment of the 21st century demands a new range of skills from LIS professionals — technology skills. Developing these skills is one of the major challenges for LIS professionals working on the Indian subcontinent. A proper needs-based training program on information technology application in libraries is required for LIS professionals. Unfortunately, most of the library schools follow syllabi developed for traditional libraries. There is little coordination among the employers and the schools of library science to design curricula that produce graduates that meet employers’ needs. As a result, some of the jobs that are suitable for LIS professionals are given to others, like computer professionals, who are not familiar with the unique aspects of library functioning.

In the South Asian region, Nepal, Bhutan and the Maldives have a limited provision for LIS education. India, however, has a proliferation of LIS programs, but many of the LIS institutions do not have adequate infrastructure to support their programs. Pakistan, Sri Lanka and Bangladesh also have the same type of difficulties. There is also no system of accreditation of library schools, while there has been a rapid increase in the number of library schools, particularly those operating under distance education program models. But these schools also do not provide the information technology skills development and experience that students need. Only basics such as an introduction to computers and their peripherals, MS Office, WINISIS (Windows-based CDS-ISIS, a software developed by the UNESCO for creation of bibliographic/catalog database) are given to the students. Other important components such as operating systems (Windows, Linux), LAN services, RDBMS, data transfer, FTP, Telnet and housekeeping software are not taught in library schools, partly due to non-availability of qualified teachers.

In fact, higher level training opportunities in ICT application covering topics like the Linux operating system (installation and administration), setting up web servers, web design, HTML, XML, digital library software,
Credibility. In India libraries and librarians are still the lowest priority in any decision-making process. This lack of participation in the development of the society is part of a vicious cycle that must be broken. Poor credibility is partly a result of inadequate LIS education, particularly in the technology areas which are so critical in the current digital information age. Inadequate education and poor resource allocation for equipment means that many libraries remain unable to serve the needs of modern users in a digital society. Because they can’t meet the needs of users, their credibility remains poor and resource allocations for libraries or LIS education are not increased. Libraries can no longer afford to remain institutionalized passive spectators. They must take responsibility for their future and learn and practice so that they can overcome this history of low credibility.

Networking, Collaboration and Best Practices. On the Indian subcontinent, there are different groups of libraries such as academic, special (science and technology related) and public libraries just as there are in most regions of the world. However, there is hardly any coordination among them in the use of information and communication technologies. They are managed and financed by different public bodies that have different policies and priorities. As a result, networking of libraries is largely non-existent. The use of open standards would facilitate interoperability and would help in the development of technical resource sharing networks, but such use is limited. Most of the libraries use proprietary software for their day-to-day operations, and such a situation does not encourage a common training program for all LIS professionals.

Another subject that baffles the LIS professionals in the Indian subcontinent is organization, management and preservation of digital contents. In India there is no uniform or standardized practice for digitization of rare manuscripts or reading material, and most of the libraries are taking up digitization projects entirely on their own. Institutions desperately need a set of best practices and user groups that they can work with to develop effective strategies for capturing, managing, distributing and preserving the digital material. These efforts require not only new technological infrastructure, but new policies and procedures as well as core competencies of staff. All of these, at this time, are very weak.

The future lies with initiatives like INFLIBNET [1] and INDEST [2], consortia that have provided access to scholarly journals to a large group of students, researchers and academicians. These networks provide access to resources that benefit library patrons, but documentation about the development of these digital libraries and networks also provides librarians with access to knowledge they themselves can use to improve their skills and opportunities in their own domains.

Infrastructure. Limited Internet connectivity and inadequate computer and communication infrastructure make it difficult for universities and institutions to access and download full text databases and other key resources. Regardless of training and practice, it is difficult to overcome these technical barriers without changes in the priority given to libraries and information centers by governments, higher education and the commercial sector.

Steps to the Future

An immediate need exists to integrate the functioning of existing libraries in different sectors such as academic, special and scientific, and public to develop national level networks – both for sharing resources and for sharing knowledge, experience and best practices about all kinds of library and information center development activities. A strong need also exists for improved training and models for development of best practices in the technical and operational management of digital collections.

ASIS&T could provide significant assistance by coordinating local conferences for information sharing, providing more awards that enable South Asian librarians to attend western conferences to learn from their colleagues, and providing direct mentoring to library and information professionals who want to learn how to transition to new models of information service.
Conclusion

The South Asian region represents a wide range of development. In India, particularly, there is a growing population that is coming to expect the type of technology service provided in the West. However, in these developing countries basic infrastructure issues like Internet connectivity often create substantial challenges. For example, The Economist recently reported that “India produces more engineering graduates than America. But it has only 24 personal computers for every 1,000 people and fewer than three broadband connections” [3, p. 4]. Many information professionals are ready to transition their information services – they just need more opportunities to connect, learn and share with one another to increase the rate of change. As they gain more practice and experience, the spirit and determination of librarians on the Indian subcontinent will hopefully begin to transform the education programs and government supervision so that they recognize and support the information technology training and resource needs of the field and provide librarians a larger voice as India and its neighbors begin to make their mark in the information society.

Resources Mentioned in the Article

[1] INFLIBNET: A Gateway to India’s Academic and Research Community (Information and Library Network): www.inflibnet.ac.in/

[2] Indian National Digital Library in Engineering Sciences and Technology: http://indest.iitd.ac.in/

Digital Inclusion Initiatives in Brazil: Improving Education and Information Seeking Behavior through Government-Academic Partnerships
by Maria José Vicentini Jorente

My perspectives on information issues in Brazil are those of a designer. I graduated from the College of Arts at the Fundação Armando Alvares Penteado (FAAP), in São Paulo, Brazil. During my studies there I became interested in the epistemology of image information – conceptualizing the nature of images and their intersections with words. This interest led me to complete a B.A. in letters at the Faculty of Philosophy, Letters and Human Sciences of the São Paulo University (USP), continuing my exploration of the relations between images and words. Since then, my interest in aesthetic disciplines has always been linked to their applicability in the creation of new objects as information mediators and the belief that these aesthetic objects could bring real benefits to users’ lives.

After some years working in the department of education and information dissemination of the Biennial of São Paulo Foundation at the São Paulo Municipal Bureau of Culture in a department responsible for the administration of municipal theaters and schools of arts, and as a university teacher, my interests turned mainly to the informational phenomena mediated by technological apparatus. I was especially interested in the World Wide Web and its influence on information storage, organization, socialization and dissemination through intersemiotical methodologies. I directed my studies to the trans-disciplinary area of information science and developed projects with students and designers seeking to understand technologically mediated information and to model strategies for seeking, recovery, use, reuse, reorganization and transformation of informational objects into knowledge. I am now a doctoral student in the new technologies in information research group within the Information Science program of the Faculty of Philosophy and Science of the Universidade Estadual Paulista (UNESP) in Marília, São Paulo state.

These experiences put me in a unique position to participate in projects related to the Brazilian government’s focus on improving access to and use of information and communication technologies throughout the population. Brazil is a very diverse country, including both a highly educated class and a large number of economically and educationally disadvantaged people. Brazil, however, has been working hard in recent years to bridge the gaps and provide more opportunities to all its citizens, focusing on information and communication technologies in particular. My work on projects related to these programs can provide insight into one aspect of Brazil’s information-related environment.

Government Initiatives in Information Communication and Technology

The government of Brazil has elected information and knowledge as its sustainability basis – key strengths on which to build its future development. In 2000, the Information Society Program (also known as the “Green Book” [1]) was launched by the Ministry of Science and Technology of Brazil, aiming to “integrate and coordinate actions to foster the use of information...
technologies and communication,” viewing social inclusion and competition in the market overall, as well as “investing in the creation of broad empowering that allows citizens to have a role in the production of goods and services, operate with fluency in new methods and tools in their work, and creatively implement the new media.” (p. 45)

A follow-up program, outlined in the so-called “White Book” [2], focused on creating “an effective Science, Technology and Innovation National System” and an environment of permanent learning in Brazilian society. These are among the specific goals cited:

- To spread the scientific and technological culture in society
- To broaden access to and use of information and communication technology (ICT) conditions for different segments of society
- To stimulate the use of ICTs in education and toward universalization of access to science and technology
- To encourage media coverage of science and technology information
- To contribute to modernizing and improving the teaching of science
- To promote and support the development of science and technology museums and exhibition (p. 67)

The need for these programs is highlighted by a recent report of the Brazilian Institute of Scientific and Technological Information (IBICT), in which the Brazil Digital Inclusion Map [3] shows that even in São Paulo, the state with the highest number (2,640) of digital inclusion points (DIPs – public spaces for technology access), the distribution of DIPs is very uneven. The city of Marília, for example, with approximately 220,000 inhabitants (of which I am one now, as a citizen and information professional), has only 22 DIPs.

Capacity for Effective Development of Information Technology Strategies

In a country where only about 10% of the population has access to the Internet, it is necessary to reflect especially on what models of information transfer and educational policies civil society can effectively adopt to bring a large part of the country into the information society. Although information science has historically looked for solutions related to the use, storage, flow, transfer and socialization of information, often through the strategies of the information and communication technologies (ICTs), these solutions must always be part of public policies and civil society priorities that support inclusion and minimize inequalities. In order to effectively reach the people, information needs to be organized and delivered according to the specific needs and context of the communities.

The World Wide Web is one of the easiest tools for improving access to and use of information by many people, but it has many of the same challenges as other earlier electronic technologies and networks when attempting to bring these tools to previously excluded populations. These are among the problems:

- Technical: related to the handling of computer, software and Internet-access (underserved populations may not have technical expertise)
- Cognitive: related to the autonomy and independence in the use of ICTs (populations may need assistance for some time before they feel comfortable operating a new technology on their own)
- Economic: related to the financial capacity to acquire and maintain computers and cost for basic software and networks access and maintenance (many people simply don’t have the resources)

Schools can play a key role in the routing of educational public policies to support information technology initiatives. Schools are logical places to create the technical, economic and cognitive conditions for students to develop their potential for the study, exploration and production of knowledge, as these institutions have the advantage of being computerized environments already.

If the Brazilian society has truly chosen to make information and knowledge the basis of its future growth, it is important to establish conditions to monitor all aspects of the initiatives or there will be a question as to which inclusive practices will really be implemented. For example, it is not only necessary to expand and facilitate access to information and the production of knowledge and technology in schools, but also to provide the teachers with appropriate training in order to improve the use of these evolving information and communication technologies in their classes. It is also important to train teachers in the practices of providing guidance to students in how to conduct effective information searches in libraries and networks.
In this process of improving the use of information technologies, key concepts must be continuously reevaluated such as transfer of information, information expertise, information digital inclusion and learning, and knowledge management. Social and personal behavior among groups and individuals must be taken into consideration when evaluating these concepts, but also the different type of cognitive skills required.

The information broadcast in new interactive media such as the World Wide Web puts images, symbols, texts and many other information structures together in hypertext formats. Learning the new encoding of these information carriers requires a shift to image-based models of communication. Often it is not easy to develop this new cognitive process. I am involved in a government-academic partnership that is working directly on this problem.

Information Initiatives in the Marília Public Schools Integrate Cognitive Approaches

The need for a digital inclusion project in the Marília public schools that reflected this cognitive viewpoint was perceived by the coordinator of the new information technologies group of the Post-Graduate Information Science Program of UNESP (Dra. Plácida Santos). Dra. Plácida Santos was participating in an event sponsored by the Municipal Bureau of Education, which was starting to educate elementary school students in the world of computer-mediated information. The schools’ computer instructors needed help in building their capacity to be effective in transferring and increasing knowledge among the students. This event led to the development of a workshop implemented in 2006, in which I took part as member of the group.

At this workshop, data were collected by observing the instructors in their computational units. This workshop developed into a larger project involving many researchers mentored by Dra. Plácida Santos. Within UNESP, this focus on studying and integrating cognitive approaches to teaching information technology in schools is converging with interest in public policies for information transfer and dissemination via new media.

This convergence has resulted in a formal partnership between the Municipal Bureau of Education and the UNESP new information technologies group. The general objectives include the following:

- Increasing the efficiency and effectiveness of social programs in addressing informational needs and teaching information technology
- Educating and training agents to implement digital inclusion programs to meet and monitor users in the search for information in digital environments in schools and community
- Disseminating the research results as a way to expand the reach of the generated knowledge, experiences and promoting partnership for new research in information science and interdisciplinary fields
- Contributing to the knowledge production of information and technology

Activities have included non-verbal techniques for collecting data, such as the analysis of the behavior in searching and accessing information, in conjunction with other data-gathering methodologies whose results are processed through digital systems to support sophisticated analysis of technical indicators and cognitive aspects.

Partnerships between Government and Higher Education Can Work

This partnership between government and higher education specially involves UNESP researchers along with staff from the technology department of the Municipal Bureau of Education and instructors who were winners of a competition designed to identify best practices in teaching information technology. The project also includes graduate students in librarianship, with the creation of Intersemioses, the first extension of the research of the new information technologies group. Involving the graduate students is considered very important in order to give them field experience with teaching support and problems that they will inevitably have to face as information professionals. It is important that they are prepared to work hard to expand the scope and intensity of digital inclusion initiatives, so that the country overcomes the acknowledged difficulties of a developing country.

The central problem of the project is measuring the effectiveness of digital inclusion programs developed in schools, whether they have been able to meet their goals in their teaching practices and in the indicators of
change and improvement in the lives of the beneficiaries. Already the project has involved computer instructors from 20 schools and students from 19 of those schools in a multimedia competition, where the students’ improvement in computer technology use was evident, demonstrating the value of the training for instructors.

The Municipal Bureau of Education is participating in all activities related to the development of the research and bears the responsibility of implementing actions to solve identified problems. The implementation, execution, evaluation and the continuity of research depends on that connection and on the responsibility and commitment in the relationship. The partnership has already proven to be a good example of a successful digital inclusion project, and in the second semester of 2007 the group was contacted by another public school under state administration with a diverse spectrum of users and needs: adults excluded from the mainstream education process, returning for another try. There is a significant opportunity to expand the project further and for it be a model for the country in how to implement the information technology initiatives.

In 2005 Brazil was in 76th place in some measures of its information technology use [4, p. 30], while now in 10th place in the world economy [5] – a visible gap that shows an urgent need for inclusion work. In 2005 only 21% of the country’s citizens had access to the Internet. However, according to The Brazilian Institute of Information on Science and Technology (IBICT) (May 2007) there was an expansion of 39% in Internet access in Brazil during 2006 as well as an increase in the number of digital inclusion points (DIPs) [6].

The increasing numbers, though, aren’t enough to guarantee the quality of the processes for spreading these new technologies and their efficient use toward improving knowledge acquisition, requirements for improving quality of life. It is largely agreed that today the building of a genuine information society in Brazil relies on information professionals to facilitate the mediation of information, taking into account and respecting the regional characteristics of the population. The global changes must reach the social majority, addressing their real necessities without harming their uniqueness.

The partnership I have described is an encouraging step forward that can serve as a model for developing a true information society in Brazil – one that will include more of the population than ever before.

Acknowledgements

This article describes work developed by the new technologies in information group of the information science department at the Universidade Estadual Paulista (UNESP) in Marília, São Paulo State, Brazil. The research group is headed by Dra. Plácida L.V.A.C. Santos, who is also mentor to the participants of the intersemiosis Group, which brings together graduate (“pós-graduação”) and under-graduate (“graduação”) students to implement the research and application work for digital inclusion. The author worked closely with Dra. Santos and with fellow graduate student Aldinar Bottentuit on the projects described here.

Resources Mentioned in the Article


Empowering distance education is crucial for Iraq after decades of traditional learning. Iraqi people need the knowledge and skills to compete in an increasingly technology-driven world economy. Iraq needs new models of education facilitated by educational technology. Some of the most promising new educational approaches are being developed through e-learning and virtual schools. This era is an exciting, creative and transforming one for students, teachers, administrators, policymakers and parents. It is time for Iraqi higher education entities to take advantage of this quiet revolution.

The conditions in Iraq are very challenging for information professionals due to a variety of factors, not the least of which is the physical danger caused by war. This paper, presented at the Iraqi higher education conference held in Irbil, Kurdistan, in December 2007, highlights a very practical area where information professionals can apply their knowledge and skills to re-build the intellectual competence of Iraq to re-establish its place in the global economy while physical conditions on the ground improve at an uncertain pace.

History

Distance learning (DL) is a field of education that focuses on using technology and instructional systems design to deliver education to students who are not physically on site to receive their education. The historical evolution of distance education has been in four main phases, each with its own organizational form derived from the main form of communication:

1. **Correspondence systems.** These systems originated at the end of the 19th century and are still the most widely used form of distance education in less developed countries. Based on a study guide in printed text and often accompanied by audio and video components such as records and slides, the interaction in the correspondence method is by letters and other written or printed documents sent through postal systems.

2. **Educational television and radio systems.** This method uses various delivery technologies, such as terrestrial, satellite and cable television and radio, to deliver live or recorded lectures to both individual home-based learners and groups of learners in remote classrooms where some face-to-face support might be provided. This model is still widely used in dense populations and rural areas within countries such as India. For Iraq, this option was the only one available for more than three decades and was only available in secondary schools. It was never considered as an approach to higher education.
3. **Multimedia systems.** These systems encompass text, audio, video and computer-based materials and usually some face-to-face learner support delivered to both individuals and groups. In this approach, which is used by the open universities in Iraq, instruction is no longer the work of one individual, but rather the work of teams of specialists: media specialists, information specialists and instructional design and learning specialists. Programs are prepared for distribution to large numbers of learners, usually located across a whole country. For Iraq, this option started to be deployed with limited resources and applications in higher education entities during the last 15 years, synchronized with global information technology (IT) deployments. The reach of these programs was limited for many reasons, including the period of United Nations (UN) sanctions on Iraq (1990-2003) which brought highly negative consequences in a general lack of hope, a lack of opportunities and the departure of many skilled academics to institutions abroad. The higher education system at that time faced many negative circumstances.

4. **Internet-based systems.** In these systems, multimedia (text, audio, video and computer-based) materials in electronic format are delivered to individuals through computers, along with access to the databases and electronic libraries that enable teacher-student and student-student as well as one-to-one, one-to many, and many-to-many interactions, synchronously or asynchronously, through e-mail, computer conferences, bulletin boards and other devices. For Iraq this began modestly in partnerships with global higher education entities. The founders were very optimistic about the potential of these partnerships, but the deteriorating security circumstances and the killing of many Iraqi academics has resulted in a new wave of emigration of higher education faculty and staff. In consequence there have been very few fruitful results recently.

**Advantages**

In spite of some initial challenges in Iraqi distance learning partnerships, the advantages of distance learning for many stakeholders is so great that it remains a strong option for developing intellectual and economic capacity in Iraq.

**Students.** One of the biggest advantages for students is the flexibility. Distance learning makes education accessible and available anytime, anywhere there is an Internet connection. This feature reduces scheduling conflicts and therefore increases options and opportunities. Distance learning also often provides access to courses that may not be available elsewhere in conventional learning environments. One of the biggest advantages for students in Iraq is that security risks are greatly reduced by eliminating the need for physical travel to higher education sites.

**Government.** The benefits for government accrue both as a supporter and a consumer of distance learning. As a consumer, government agencies can increase their capacity for productive functioning through increased access to opportunities for updating and retraining personnel without requiring staff to travel. As a supporter of distance learning (most universities are government supervised), there is often an increased cost-effectiveness (distance learning can often serve more students for a lower cost).

**Universities.** In many cases distance-learning initiatives return a surplus to the university. In Iraq, the ability to keep the institutions of higher education viable is essential to maintaining and rebuilding national intellectual capacity to facilitate growth in all sectors. Distance education can also enable a university to expand its reach and increase the diversity of the student body, which can also contribute positively to traditional on-campus student retention.

Overall, distance learning provides significant advantages for all participants:

- Balancing inequalities between age groups
- Extending geographical access to education
- Delivering educational campaigns and other education for large audiences
- Providing speedy and efficient training for key target groups
- Expanding the capacity for education in new and multidisciplinary subject areas
- Offering the combination of education with work and family life
- Developing multiple competencies through recurrent and continuing education
- Enhancing the international dimension of educational experience
- Improving the quality of existing educational services
For Iraq distance learning is totally a win-win case. In addition to the items mentioned above, Iraq has spent decades being isolated from the global higher education network. This isolation has been especially painful since Iraq was one of the pioneer nations in the region to establish advanced higher education institutions (for example, the University of Baghdad was established in 1921, based on the United Kingdom model of higher education curricula). Distance learning allows Iraq once again to provide world-class education to its citizens and join in the global academic development of knowledge and opportunity.

Challenges
There are very real challenges to implementing distance learning on a broad scale in Iraq. The biggest challenge, of course, remains security. The degree to which Iraqi universities are ready for this transition also must be considered and addressed in both general and specific ways. Aside from basic challenges to the implementation of e-learning on a national scale, there are also challenges in developing learning environments that effectively engage the current generation to help them reach their full potential. Careful thought must be given to building a curriculum that will equip students with the skills and knowledge they need to be competitive in a global, information-based economy and to be contributing citizens of an emerging new Iraq. In this innovative environment for Iraq it is likely that assumptions about education will need to be questioned, which may provoke some anxiety. But Iraqi policy makers and the Higher Education Council should do their best to address these challenging issues. One of the fastest solutions is to start these programs in safe areas around the country.

Recommendations and Road Map
Some of these challenges can be addressed through a commitment to the development and use of open educational resources and practices to share proven tools, services, learning designs and content. Regarding policies, institutional frameworks and business models, it is essential that the distance learning initiatives in Iraq strengthen leadership, engage in innovative budgeting, focus on improving instructor training and provide strong support for e-learning. Such support requires access to e-learning options to all students and faculty as well as designing quality measures and accreditation standards for e-learning that mirror those traditionally required for course credit. Establishing partnerships with highly esteemed e-learning and virtual universities outside of Iraq will also assist in addressing some challenges in development and implementation.

The Iraqi Higher Education Council can make use of regional expertise in related areas due to the similarities of overall national components. There are three types of distance learning institutions. “Dual Mode” refers to universities that have extended educational activities to provide off-campus programs as well as on-campus programs simultaneously. “Single Mode” refers to universities that dedicate all of their activities to the unique purpose of distance education. “Virtual” refers to local universities that aim to provide world-class education without boundaries so that students do not have to leave their countries to study abroad. Table 1 summarizes some of the regional Arab higher education institutions that have adopted distance learning /e-learning programs and may be good partners.

### Table 1. Regional Arab higher education institutions that have adopted distance learning/e-learning programs

<table>
<thead>
<tr>
<th>Local Institution</th>
<th>Type</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cairo University</td>
<td>Dual mode</td>
<td>Egypt</td>
</tr>
<tr>
<td>Alexandria University</td>
<td>Dual mode</td>
<td></td>
</tr>
<tr>
<td>Assiut University</td>
<td>Dual mode</td>
<td></td>
</tr>
<tr>
<td>Ain Shams University</td>
<td>Dual mode</td>
<td></td>
</tr>
<tr>
<td>Balqa’a University</td>
<td>Dual mode</td>
<td>Jordan</td>
</tr>
<tr>
<td>German Jordan University (GJU)</td>
<td>Dual mode</td>
<td></td>
</tr>
<tr>
<td>Open University of Libya</td>
<td>Single mode</td>
<td>Libya</td>
</tr>
<tr>
<td>Continuing Education University</td>
<td>Single mode</td>
<td>Algeria</td>
</tr>
<tr>
<td>Al-Quds Open University</td>
<td>Single mode</td>
<td>Palestine</td>
</tr>
<tr>
<td>Damascus University</td>
<td>Dual mode</td>
<td>Syria</td>
</tr>
<tr>
<td>Syria Virtual University (SVU)</td>
<td>Virtual</td>
<td></td>
</tr>
<tr>
<td>Zayed University</td>
<td>Dual mode</td>
<td></td>
</tr>
<tr>
<td>American University of Sharjah (AUS)</td>
<td>Dual mode</td>
<td>United Arab Emirates (UAE)</td>
</tr>
<tr>
<td>American University of Dubai (AUD)</td>
<td>Dual mode</td>
<td></td>
</tr>
<tr>
<td>Arab Open University (AOU)</td>
<td>Single mode</td>
<td>Kingdom of Saudi Arabia (KSA), Bahrain, Jordan, Lebanon and Egypt. Their headquarters is in Kuwait.</td>
</tr>
</tbody>
</table>
Support of open access and open educational practices and resources will be essential for enabling the rapid spread of models for pedagogy and technical implementation. Key steps in this support include enhancement of Internet access (technology infrastructure), development of digital content (including the training of instructors on effective use) and developing integrated data systems so that administrators and educators have the information they need to increase efficiency and execute assessment strategies to inform and improve instruction for all students.

The Iraqi Higher Education Council should start a campaign with related stakeholders, including academics, government, think tanks, the business community and other experts. This integrated approach should generate a policy paper indicating the best road map for achieving a national distance learning strategy. When published openly, the road map can more easily guide the implementation by many stakeholders simultaneously.

Can It Work for Iraq?

The Arab region has witnessed a remarkable increase in distance higher education over the past two decades. Iraqis have been left behind due to the recent prolonged conflict. The key current challenge question: Can it work for Iraq this time? There is a strong feeling that this initiative is possible now because Iraq does have the nationwide, geographically distributed higher education infrastructure that can be used as a nucleus for accommodating online distance-learning programs. This infrastructure includes (but is not limited to) these elements:

- 20 government universities
- Excellent higher education staff (both in Iraq and abroad) that can implement such programs with high degree of professionalism
- Excellent governmental budget resources with a possibility of private-public partnership scenarios
- An ability to build partnerships with other international universities
- An ability take advantage of regional online distance learning educational programs that have been already deployed in some neighboring countries, such as Jordan, United Arab Emirates (UAE), Lebanon, Kuwait and the Kingdom of Saudi Arabia (KSA)

Implementing a distance learning strategy in Iraq is a sensible way to address the critical education needs of a country in the midst of uncertain security conflicts on the ground. Distance learning programs include many elements in which information professionals excel – the management of information resources and networks for access to content, for pedagogical resource sharing and for technical delivery of interactive learning environments. There are opportunities for Iraqi information professionals to play a strong role in the development of these strategies. There are also many opportunities for ASIS&T members to contribute to the development of these networks, both within Iraq and among partners around the world. The history of Iraq is grounded in a commitment to learning and knowledge. Building on this legacy, with the assistance of information professionals, Iraq can reinvigorate its pioneering, intellectual spirit.
Kosova Libraries: Where Practical Steps Are Most Needed
by Besim J. Kokollari

Editors Note: Kosovo has been administered since 1999 by the UN Mission in Kosovo. In this article, the author follows Albanian spelling conventions, for example, Kosova instead of Kosovo.

I am Besim Kokollari from Kosova. First, I am going to write a few words about myself: some background information and what I do. I follow with a brief section on the current situation of the library and information profession in my country. I conclude with a plan for action and progress.

I am currently enrolled in two master degrees. The first, which is almost at the end, is in curriculum, teaching and learning at the University of Calgary, Canada, which I take through distance learning. The second is in digital library learning, which I have just started, and it will take place in three European Union countries – Norway, Estonia and Italy – in a face-to-face mode. Both degrees were enabled through scholarships, the former from the Canadian International Development Agency, the latter from the European Union Erasmus Mundus program. I have also been fortunate enough to study library and information science for one semester at Simmons College, both at the Boston and Mount Holyoke campuses, through a librarian training project funded by the Bureau of Educational and Cultural Affairs of the U.S. Department of State. Early this year, I was awarded an Individual Mobility Grant from the European Union to stay for one month at the Middlesex University Libraries, London, to see how they work and what information technology they have. So, both North Americans and Europeans have been good to me. Back at home, I received my BA in English language and literature from the University of Prishtina in 2002, and I used to teach both at the primary school and the university levels. Lately, I have been mainly working for the National and University Library of Kosova.

I have been president of Kosova Librarians Association for the past two years. This opportunity, as well as working for the National and University Library of Kosova, has given me unique possibilities to see and be involved with the most recent library developments in the country. In the library profession, which is the focus of this article, there are two conferences organized each year. One is called “Library Week in Kosova,” the other is “The Albania-Kosova Library Conference.”

Library Week in Kosova was established in 2003. It is jointly organized by the National and University Library and the United States Office in Prishtina and is celebrated at the same time as the American Library Association’s National Library Week in the United States. It is a weeklong local event intended to improve library infrastructure, expose Kosovar librarians to new Western library developments through the shared experiences and knowledge of American and European library expert speakers, and to raise the library awareness in our community through the media.

The Albania-Kosova Library Conference was established in 2006 by the National Library of Albania and the National and University Library of Kosova. It is a rotating conference: one year it takes place in Albania, the next, in Kosova. It has a more regional purpose and a more scientific nature than Library Week. The conference fosters collaboration and standardization efforts in the library profession between the two countries, influencing other Albanian libraries throughout the Balkan region.

In addition to sharing knowledge and experience gained from those two library conferences, the National and University Library of Kosova acts as the highest library institution in the country and therefore is responsible for the maintenance of the network of public libraries in Kosova. The library also bears the responsibility for training new librarians in the job, although efforts have been irregular and not sustained. There is much to do in this direction as long as there is no library school in the country.

For our libraries, infrastructure remains a great concern. Many public libraries, mainly school libraries, some of which acted as village libraries as
well, were burnt down during the 1998-1999 war in Kosova. They have not been reestablished in post-war Kosova because most of the attention and resources have been directed toward the political solution of the final status of Kosova. This lack of political resolution has made progress difficult. Despite this uncertainty, government efforts and outside donations have equipped many public libraries in Kosova with computers and Internet access. However, maintenance, upgrades and sustainability are difficult, because work in public funded institutions is a very low paid job, averaging only 160 euros per month. Library workers have very few resources for upgrading library technology. Even so, the introduction of computers into libraries had great impact on the day-to-day work. The National and University Library implemented Aleph 500, an integrated library system (ILS), in 2005 and is exploring ways of expanding the network to the other public libraries. Digital libraries, institutional repositories – even library websites – are needed, yet are not a reality in the majority of Kosova’s libraries. With the lack of a commercial or open source union ILS, the majority of public libraries still produce and maintain card catalogs. In this part of the world, we still love card catalogs, or in a better way putting the majority of public libraries still produce and maintain card catalogs. In this part of the world, we still love card catalogs, or in a better way putting it, we have still not found a way to make them part of our metadata history.

In the online ILS environment, MARC 21 is the latest metadata schema in practice for us. It was introduced in 2005 with Aleph, but has not expanded beyond the walls of the National and University Library of Kosova so far. The library community uses AACR2 and ISBD rules for cataloging, however, there is not an authoritative or full translation of any of these standards, including MARC documentation, into Albanian. There are even greater problems with the adoption of other library standards to describe library resources. Although this discussion has focused primarily on public libraries, corporate, government and other special libraries are no better in terms of standardization, although they have better infrastructure and financial resources.

Of course, these problems greatly affect access to information resources themselves, both physical and electronic. They have a direct impact on the libraries, but more importantly, on the communities they serve. However, none of these problems can prevent us from hoping and envisioning a better future for our libraries and the impact these libraries might have as models for the other libraries in the region.

Indeed, the library community in Kosova envisions a prosperous future for their libraries. Despite the political uncertainty, people have the will to work well and are very eager to learn new things. We hope that political stabilization of the country will open up new opportunities for the library community at both the regional and world levels. Since we are a small country, it is potentially possible to develop exemplar libraries that will influence and inspire regional library development. Library Week is an example of this leadership. Its success gave birth to the idea of the Albanian-Kosova Library Conference.

Similarly Kosovar libraries could lead the way with an advanced ILS infrastructure network such as the open source PINES (http://gapines.org/) used in Georgia in the United States. Or they could establish an interlibrary loan infrastructure similar to that of WMRLS (www.wmrls.org) in Massachusetts. We are a small country that requires fewer resources to build such an information infrastructure than either Georgia or Massachusetts.

How can we accomplish these goals? Not without the help of the members of ASIS&T and the international work and contributions of people like Sue Johnson. I ask you to spread the word about the opportunities for the professionals in the field to contribute to the development and improvement of Kosova libraries.

Many governments of countries around the world have invested in different projects in Kosova, some in the library field, some in other fields. ASIS&T and its members, as well as similar organizations, can act as ambassadors in their countries to advise their governments to invest in Kosova’s future, that is, in the education of its people, in library service to its people, in libraries and in other information institutions. Sharing your knowledge and opportunities with Kosova’s information professionals, such as the free ASIS&T membership granted to me for the year of 2007, will help us stay informed and permit us to take advantage of opportunities relevant to our situation. Libraries aim at serving the whole country, feeding the information needs of its people so that they become informed citizens of today and better planners of tomorrow. Practical and concrete steps, informed by well-defined knowledge and experience, are needed to improve the present library situation in my country. Therefore, this article is a call to the world to support the information profession in my country now, so that we can become informed citizens of the world today and contributors to a secure tomorrow.
Information Professionals in Nigeria:
Optimism and Innovation in the Face of Staggering Inadequacies
by Ifeanyichukwu Faith Njoku

The environment in which information professionals have to perform is changing significantly due to economic, social, demographic, political, educational and technological developments. The revolution in computers, communications and content in the past two or three decades has had a dramatic impact on the information profession and information professionals. Society continues to become more paperless, evolving away from formal, paper-based communication patterns to electronic information exchange. Information technology has removed geographic barriers and pushed us toward an information-intensive, networked society. Information professionals in Nigeria and many African countries are faced with this reality, but the ability of individuals and institutions to adjust to the changing information society often depends on where one is practicing. The distinctions between urban and rural information environments are particularly stark.

Challenges

A survey of information science in Nigeria reveals a catalog of problems and gaps. These include a towering infrastructural inadequacy, seemingly insurmountable problems of human and financial resources, lack of access to necessary information and resources for learning, and poor communication among key players in the library schools in Nigeria.

Ifeanyi Njoku (Ify) is a librarian and information scientist in Nigeria. She holds bachelor's and master's degrees in library science from the University of Nigeria, Nsukka, and University of Ibadan. She also has a master of public administration degree from the University of Lagos. She worked as the college librarian at the Federal College of Fisheries and Marine Technology, Lagos, until recently when she received an appointment with the Central Bank of Nigeria, also as a librarian. Her research interests include user behavior, information behavior and information and communication technology (ICT) in libraries.

The most acute problem arises from an erratic power supply. Personal computer users are the greatest sufferers as very often they cannot justify spending large sums of money (sometimes more than the cost of the computers themselves) on stabilizers and an uninterruptible power supply (UPS). The depth of frustration when the power supply fails three or four times within a two-hour session or remains down for an hour – or for a whole day – has to be experienced to be appreciated.

Restrictions abound in access to government information and people still see information as an exclusive possession that cannot be shared. The culture of reading and writing is at a low point in Nigeria and most African countries, so there is a scarcity of published materials, especially on informatics. Information resources available in Nigeria are mostly imported from Europe, America and Asia in all areas of life.

The challenges facing the profession in Nigeria and Africa as a whole are linked to the following:

- Energy crises – frequent power interruptions restrict all computer-related activities
- Poor communications infrastructure
- Poor funding – information and communication technology (ICT) are available only to a few privileged workplaces in private sector organizations, universities, research institutes and a few government establishments
- Lack of recognition of the profession – until recently, the profession was seen as reserved for people with little or no ambition and for those who were not intelligent enough to gain admission to another course of study
Poor standardization of the practice of the profession – no accreditation, no best practices

Lack of credentialing in the profession – anyone can be employed to do the work of a librarian and there is no set standard as to what competencies are necessary to be a qualified information scientist/librarian

Many library schools teach a traditional library curriculum – information science and technology are still at the budding stage

Non-acceptance of librarians by some other information professionals

Ill-equipped workplace – compensation, physical environment and available resources are poor

Discord among various information professions – clashes in activities, roles and functions often lead to conflicts and bitter rivalry as evidenced by recent acrimonious wrangling between the Nigerian Communication Commission and NigComSat over function and roles

Reasons for Optimism

There is optimism that, with the inauguration of the Librarians Registration Council of Nigeria in 2004, the profession will be better positioned to achieve giant strides. The LRCN “is charged among other things to ‘determine who is a librarian, maintain discipline within the profession, determine standards of knowledge and skills to be attained by persons seeking to become registered as librarians and maintain a register of librarians.’” [1]

Liberalization of information and communication technology in Nigeria has recorded remarkable changes. Access to information and communication technologies is expanding rapidly with the telecommunication subscriber base hitting over 40 million, just three years after the liberalization. Prices of ICT hardware and infrastructure are crashing rapidly, resulting in more accessibility by a greater number of the people.

Various initiatives by different agencies in the region have resulted in deliberate efforts toward increasing information literacy (which is disappointingly poor among information professionals). Initiatives such as encouraging the use of computers in the workplace and participating in One Laptop per Child [2] along with the launch of the Nigerian satellite early in the year (NigComSat) are not only widening access but also bringing information closer to the people.

Though the region is still experiencing a significant bandwidth and energy crisis, this conundrum will, we hope, be resolved now that the Nigerian government seems to be paying attention to the problems. New energy policies have been enacted that enable the licensing of independent power providers (IPP) to provide electricity to augment what the federal government can provide. With NigComSat and its licensing by the Nigeria Communication Commission, it is believed that in a short while many connectivity problems in Nigeria will be solved. Internet connectivity will get faster, affordable and more reliable, and telecommunications will be greatly enhanced.

Recently, the Nigerian.ng domain name was made available free of charge to encourage local content on the web. A vital open source community now exists in Nigeria leading to the development of the first Nigerian Linux (Operating System) – distro wazobia Linux. The Nigerian Network Group (NGNU) is also actively engaged in education, capacity building and development aimed at enhancing network building and expansion nationwide.

Recent pronouncements by the federal government of Nigeria have identified special allowances for information professionals in the new salary structure framework. These increased benefits should have the attendant consequence of encouraging training and capacity development in the information sector.

Information professionals in Nigeria are also networked with others outside the boundaries of our country. There are regional associations, like the West Africa Library Association, for librarians, information scientists and technologists. Many Nigerians in this profession are also gainfully employed outside the country and they have always formed a strong link and network between their countries of abode and information professionals in Nigeria.

Concerted efforts, hard work and the revolution of ICT are gradually bringing the information profession from a fringe vocation back into the mainstream of respected and indispensable professions. But we are not there yet.
ASIS&T Members Can Be a Tremendous Resource

There are several ways that ASIS&T members can provide benefits to the region either independently or through partnerships with local organizations. Some of the suggestions below require funding, but many can be achieved with only a little energy and time for the benefit of your colleagues in Nigeria:

- Create awareness on updates in the profession through an online forum
- Network with associations for information scientists in Nigeria (and other developing countries)
- Provide general and direct advice on issues related to information science and technology
- Provide online education resources
- Expose information professionals in this region to what is happening around the world through organizing study tours, workshops, conferences which the professionals can attend on subsidized rates

- Invite professionals in Africa to join your associations at reduced membership dues
- Encourage the availability of scholarships in LIS programs and conferences for information scientists from all over the world
- Provide grants to professionals from developing countries for the conduct of research relevant to their environments, such as on access to communication infrastructure and services and impact assessment of information provision on the economy.

Information professionals in Nigeria face great basic challenges in the form of inadequate power and infrastructure, poor credibility within society and information climates that inhibit the sharing of information that would enable the profession, and its contributions to Nigerian society, to advance more rapidly. But there are recent developments that have begun to turn the tide, and expertise from ASIS&T colleagues can help move things forward more deliberately and successfully.

Resources Mentioned in the Article

Glancing at the Rearview Mirror, Focusing on the Road Ahead: Library and Information Professionals in Indonesia

by Liauw Toong Tjiek (Aditya Nugraha)

Indonesia, like other Asian countries, didn’t have a dominant written tradition as many of the Western nations did. Written records and documentation were largely created and kept by the ruling or intellectual branches of the society. Oral tradition dominated among the common people. Legends, history, knowledge, wisdom – all were passed on to the next generations through storytelling traditions. Dominant oral tradition is believed to be one of the major factors contributing to the low appreciation in Indonesian society of written records and documentation.

The tradition of (modern) libraries and librarianship was first introduced by the Dutch, who built libraries and started the librarianship profession in a repressive spirit. Libraries and the profession became a tool that the rulers used to preserve their power by controlling what was being published and read by the society. This environment is in contrast to the egalitarian spirit that characterized the birth and development of libraries and librarianship in many Western countries, the United States in particular. The repressive spirit was reinforced in the New Order regime after our independence in the 1940s. Several different library-related professional organizations were encouraged to merge into a single nationwide professional organization called Indonesian Librarian Association (ILA). The move was widely perceived to be the New Order’s political strategy to gain control over society’s clusters of power. Since its first congress in 1977 (with one exception) the chairman of ILA has always been the head of the National Library of Indonesia (NLI), which is a branch of the central government. Some might argue that it is a strategy to empower the organization financially (NLI provides funding for ILA). However, the author believes that it is also a legacy of the repressive spirit of centralized Dutch rule, carried over through the New Order era.

The burden of history described above has contributed to society’s lack of appreciation for the librarianship profession. This condition has been exacerbated by the fact that many librarians in Indonesia aren’t really librarians, at least not in the sense that is commonly understood in Western countries. All who work at a library are called librarians. Only a small percentage of them have obtained formal degrees from library and information science (LIS) schools. Most are actually library assistants or clerical staff with some level of training in library technical and/or user services. The NLI has been conducting three-month to six-month equivalency trainings that transform these non-librarians into librarians. This practice is understandable from certain perspectives since there aren’t enough library
schools in Indonesia to supply the demand for librarians. However these practices do not improve the credibility of the profession of librarianship.

There are approximately 22 higher education institutions that offer LIS education at various levels. Most offer only non-degree programs. Ten offer undergraduate programs, and two offer master’s programs. Only one school offers a doctoral program. Careers in librarianship do not appeal to most Indonesians. It is difficult for LIS schools to attract and supply many bright students from/to the society. It is a vicious circle that has plagued librarianship in Indonesia. Although LIS schools, higher education libraries and professional organizations do hold seminars and/or workshops from time to time, there is currently no regular LIS conference in Indonesia. Lack of critical mass (librarians who conduct research or write/publish regularly) is believed to be the major obstacle in holding such events.

Society also perceives librarianship as merely dealing with administrative and/or clerical tasks. The public rarely have dealings with what many consider the very essence of librarianship, such as securing equal access for the society, protecting the freedom of information and empowering the civil society. The condition is worst in most government-run libraries. These libraries are notorious as places for castaways. In the context of government agencies, transferring staff to government-run libraries is a form of punishment.

Collaboration and Networking

There are no formal interlibrary loan services in Indonesian libraries, primarily for three reasons. First, the big gap among existing libraries – in terms of policy, budget, collection, human resources and other factors – makes it difficult to collaborate. Institutions need to be at relatively the same level of performance in order to maintain sustainable cooperation. Most libraries still struggle to serve their local user communities. It is hard to expect them to collaborate to serve wider audiences. Second, postal service and transportation systems in Indonesia aren’t reliable enough to facilitate collaboration efforts that rely on sending library materials across the country. Indonesia is an archipelagic country, consisting of more than 17,000 islands scattered across the equator. Third, while small-scale, informal interlibrary loan services and document delivery services have existed for quite some time, relying on informal/personal networking among librarians, there is currently no agreed-upon system for interlibrary loan services among Indonesian libraries.

There have been a number of networking initiatives among libraries in Indonesia. The Association of Theological Schools in Indonesia was formed in 1963 and now has 36 members. The State University Libraries Communication Forum was formed in 1987, with 29 major state universities as members. Six of these universities are now working on a model for interlibrary loan/services among themselves. Indonesian Catholic University Library Network started its steady programs in 1996. It is part of the Association of Indonesian Catholic Higher Education with 16 Catholic universities as members. The Indonesian Christian Universities – Virtual Library was formed in 1997 with 19 member institutions. Indonesia Digital Library Network was established in 2000. The Indonesian Islamic Bibliographic Network was established in 2003 with current membership of 23 state Islamic higher education institutions. The development of these networks is encouraging, but their practices are specific to each network and do not provide options for other libraries to participate.

Welcoming the Future

The development of democracy might bring a new hope for Indonesian librarianship. The centralized form of government is being transformed into a decentralized one where local governments gain more power and authority. While many local public libraries are suffering worse neglect as a result of this change, some are emerging as excellent examples of how public libraries could and should be run. Despite negative side effects due to the immature state of democracy in Indonesia, the change has also begun to empower local societies to be more involved in their own governance. Empowered civil societies will need access to information and other resources – activities in which the libraries and librarians can play major roles. It is up to the librarians and information professionals in Indonesia to assume these strategic roles and start the chain reactions that transform librarianship into a more respectable profession.

The past few years have witnessed the formation of several information/
library-related professional associations providing alternatives to ILA. This development reflects an increase in the ability of the profession to organize and build networks. These networks include the Indonesian Libraries Club (1982); the Indonesian Higher Education Libraries Forum (2005); the Media Librarian Forum (2005); the Association of Indonesian Library and Information Scholars (2006); the Association of Indonesian School Information Professionals (2006); Athenaeum Light Users Community (2006); and the Indonesian Library Development Foundation (2007). In addition, there are various other city/state-wide library networking initiatives.

The emergence of these numerous interest/profession-based associations, which mostly are free from any government intervention, is expected to stimulate more genuine ideas and activities in the profession, thus increasing the visibility of libraries and information professionals in the society. The author believes that the trend will help break the vicious circle that has limited Indonesian librarianship.

Recent policy developments have also added excitement in the librarians circle. The Indonesian government recently endorsed the Library Act, which has faced mixed reaction, but most agree that it is a sign of change in the profession. A Freedom of Information Act is being debated in the House of Representatives, with lots of pressure from various NGOs. The grant competitions held by the Directorate General of Higher Education have been giving incentives to higher education libraries to compete in innovation since 2006. Besides utilizing the grants to generate innovations, a significant portion of the grants has been used to build the Indonesian Higher Education Network (INHERENT).

INHERENT connects 32 major state universities as local nodes, where they serve as gateways for other Indonesian higher education institutions to link to INHERENT. The idea of building INHERENT came from the great cost of telecommunication infrastructure, which has hindered the growth of the Internet in Indonesia. Most schools and universities have little or no Internet bandwidth. INHERENT provides an alternative to the regular Internet bandwidth, giving each connected university fast access to the content provided by other connected universities via what is basically a private network. The network was established in 2007, connecting most major state and private universities in Indonesia. However there isn’t enough continuous content in the network. Libraries are the perfect candidates to fill in the need since they have rich content. The network has sparked new appreciation on the vital roles that libraries can assume.

The development of digital libraries and digital repositories also presents opportunities for libraries to broaden their influence in local and global society by developing digital local content. Libraries should start to identify resources that are considered to be local content – resources that are produced locally and/or have local characteristics – digitize them and provide them in their digital libraries/repositories. In the context of developing countries, digital local content resources can help bridge the digital divide (in terms of digital content contribution) between developed and developing countries. Digitizing local content resources also renews interest in and increases appreciation of local resources, which are usually considered to be inferior to digital resources produced by the West. Building such databases is an opportunity for libraries to assert their influence in local and global societies and encourage strategic international collaboration.

There are opportunities that ASIS&T can explore to increase collaboration with Indonesian librarians and information professionals. The U.S. State Department, through the U.S. embassy in Jakarta, has been active in providing funding for U.S. speakers to come and talk at various library events in Indonesia. A formal cooperation between the U.S. embassy, ASIS&T and one or more professional organizations in Indonesia would serve as a catalyst for sustainable future networking and collaborations. Indonesia will host the 2008 International Conference on Asian Digital Libraries (ICADL) in December 2008, in Bali. ASIS&T might want to consider establishing a point of presence at this event by opening a booth or distributing flyers. ASIS&T can also explore the possibilities for direct collaborations with the various professional organizations.

The field of library and information science is moving forward in Indonesia. The author is looking forward to welcoming a future of greater collaborations with colleagues around the world as Indonesia builds credibility at home and abroad. Readers are encouraged to review the references to learn more about library and information professionals in Indonesia.
Resources


List of Websites


www.aptk.or.id

http://ipi.pnri.go.id/Organisasi/organisasi_anggota.asp

http://incuvl.petra.ac.id/family.htm


www.kpi.or.id/profil_organisasi.htm

http://kali.openlib.info

www.persetia.org
For years, I’ve suspected that the common denominator for people who call themselves “information architects” is our particular way of observing the world around us – our ability to spot patterns where others see noise. For example, by the time I was in the second grade, I was dreaming up screwy new ways to sort my baseball cards (left- or right-handed batting stance, with or without glove, etc.). I’ve heard similar stories from many other practitioners. I don’t think this is an accident – our field seems to attract a certain type of curious individual and we need to make sure it continues to do so.

Exploring Best Practice and Encouraging Innovation

Information architecture, as an academic discipline, is young. So we spend a lot of time discussing certification programs and other formalized educational opportunities. These set up a series of academic hoops through which budding IAs must jump. If they jump successfully, they are awarded academic titles and/or fancy documents – like the blue ribbons given to well-behaved puppies.

Don’t get me wrong – such programs are vitally important. (I’m on a couple of advisory boards and have an associate professor title to prove my sincerity.) But two of the most important topics aren’t even mentioned in the current IA literature – curiosity and creativity.

Curiosity and Creativity 101

I’ve observed that virtually all top-notch IAs clearly demonstrate both these abilities. This makes me think that perhaps information architecture isn’t a discipline at all – it’s a lifestyle. And maybe this is why IA is so difficult to define and to teach.

Creativity can be taught (I’ll show you a simple method in just a moment). Curiosity, though, is inate, which means we need to make our educational offerings even more appealing to naturally curious individuals. In other words, we should purposely skew the application population for any formal program and thereby improve the outcome. And let’s put GPA on the back burner as an admissions metric.

Most educational programs are designed to introduce students to a broad range of current best practices. But heaven help us if graduates continue doing what we teach them the rest of their lives. Innovation invariably builds on a previous level of best practice. And without innovation, we will never move forward.

Curiosity and the Road to Cultural Literacy

Curiosity is critical. That’s because curiosity is usually the first step on the road to cultural literacy. Cultural literacy means you know there are many different, yet perfectly reasonable ways of doing things. The greater your degree of cultural literacy, the easier it is to understand and
accommodate conflicting points of view. You don’t have to like these views, but you do have to acknowledge them. And in completely banal terms, it’s tough to practice user-centered design if you have no empathy with the user.

The classic image of the “ugly American” stems from this lack of cultural literacy – expecting the rest of the world to act as though everyone was a native of Des Moines. Or Sydney. Or Tokyo. Or Amsterdam. Let’s face it, every society has its share of “ugly Americans.”

Really good IAs have a tremendous ability to understand new situations. They observe, they learn and they embrace diversity. And curiosity lies at the core. If you’ve got it, make sure it comes across in your CV.

Teaching Creativity
Curiosity is linked to the ability to wonder, which, in turn, lies at the heart of the creative process. This is because the act of wondering helps us shift from rational to intuitive thought processes. As Oliver Cromwell said, “I beseech you, in the bowels of Christ, think it possible you may be mistaken.”


Only when we abandon the rational, learned-in-school, first-impression of a problem, can we wonder. Through wonder we eventually achieve intuitive recognition of the underlying generic patterns. And it is within these generic patterns that brilliant information architecture frequently hides.

Creativity in a Can
Let me share a bit of the Reiss family table-talk. A visiting college student, Chip, was very upset because he had flunked the “creativity test” in a magazine. The question was, “How many things can you make with an eight-ounce tin can?” Chip moaned he could only remember the candleholders he’d once made at summer camp.

But “remember” is a rational action. This guy needed to see the can’s qualities – which is what IAs do when they seek out useful categories. My mother gave Chip a shove: the can can be a container, a measure, a shape. Chip got the message: it’s shiny, it rolls, it’s sharp when cut. It makes noise when drummed.

And since each quality is an ability that has uses, Chip suddenly saw all of the creative possibilities his rational mindset had repressed: “The tin can is a scoop with which I can bail the water out of my sinking lifeboat.”

We need to wonder in order to see, which enables us to see past the things we “remember.” This is how Betty Edwards gets people to draw; she turns the subject upside down. So rather than drawing a face or a chair, we draw the shapes we see – because we cannot recognize (and thereby remember) the specific thing. This lets us see the generic features and draw them without prejudice. (Are eyes near the top of the face? They are when we “remember.” Actually, they’re about halfway between the pate and the chin.)
Five Questions, Three of Them Trick

It’s surprisingly easy to get people to think outside the box (box = rationality = got the t-shirt). Let’s take a simple question:

Which seem more alike:

a. a sphere and a circle
b. a sphere and a cube

Rationality “remembers” the roundness and will answer a. But in terms of generic qualities and patterns (and in mathematical terms), a three-dimensional form will have more in common with another three-dimensional form. So, intuition (and mathematicians) will answer b.

In the summer of 2004, I invited subscribers to the SIG/IA list to participate in a short survey designed to encourage people to think intuitively. I asked five questions, plus three supplementary questions that would tell me about the respondent’s background – educational background, educational level and whether they practiced strategic or tactical IA. (Back then, I called these “Big IA” and “Little IA, but these are horribly misleading labels that I now assiduously avoid.) Here are the five questions:

1. Which seem more alike:
   a. a sphere and a circle
   b. a sphere and a cube
2. Which one of these items seems least relevant:
   a. cassette tape
   b. mirror
   c. music CD
   d. LP record
3. Which one of these items seems least relevant:
   a. cassette tape
   b. mirror
   c. music CD
   d. tin-can lid
4. Which one of these items seems least relevant:
   a. cassette tape
   b. mirror
   c. car hubcap
   d. tin-can lid
5. Which seem more alike:
   a. a cube and a square
   b. a cube and a sphere

   In terms of pattern, questions 1 and 5 are identical. Questions 2 to 4 are designed to move people away from the comfortable, remembered, rational answer (mirror) to one where qualities come into play because people are forced to wonder (round, reflective, sharp edge…”cassette tape” became the odd-man out). It’s kind of like spinning the seeker before starting a game of Blind Man’s Bluff. The results in percent (minus the manipulative mind-benders) are illustrated in Table 1.

| TABLE 1. Responses (percent of total), segmented by background and practice area |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Total respondents                | 67.5            | 32.5            | 59.7            | 40.3            | 355             |
| Design                           | 70.6            | 29.4            | 67.6            | 32.4            | 34              |
| Writing                          | 68.5            | 31.7            | 61              | 39              | 41              |
| HCI                              | 72              | 28              | 62.7            | 37.3            | 75              |
| LIS                              | 61.8            | 32.2            | 55.3            | 44.7            | 76              |
| Computer science                 | 84.6            | 15.4            | 69.2            | 30.8            | 13              |
| Bachelor's                       | 66.4            | 33.6            | 58.8            | 41.2            | 131             |
| Master's                         | 68.1            | 31.9            | 61.1            | 39.9            | 180             |
| Doctorate                        | 66.7            | 33.3            | 41.7            | 58.3            | 24              |
| Strategic IA                     | 64.9            | 35.1            | 56.9            | 43.1            | 209             |
| Tactical IA                      | 73              | 27              | 62.9            | 37.1            | 89              |

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Incredibly, three seemingly irrelevant questions got a mean average of 7.8% of the respondents to switch from a rational to an intuitive thought process. And one group demonstrated a whopping 25% shift! Here’s a graph showing the percent changes from specific (rational) response to generic (intuitive) response:

**Figure 1: Percent changes, segmented by background and practice area**

And New Questions Emerge

The results are statistically significant across the board. Perhaps a better scientist than I will design a similar experiment with control populations and larger sample sizes. But in the meantime, several interesting questions emerge.

First, can we learn from this little experiment to help our schools and certification programs teach IA students to see generic patterns more effectively? Second, could it be that the strategic IAs who are now calling themselves “business consultants” need to watch their backs? The hard-core tacticians appear to be more willing and able to think intuitively. Third, if computer geeks are more intuitive than their stereotype suggests, shouldn’t we be doing more to recruit them to our ranks? Fourth, what on earth happens during the process of getting a Ph.D. that caused this remarkable 25% swing? And fifth, is this the first quantitative proof that designers really are a pain in the butt because of their preconceived notions?

And in Conclusion

Conclusion? Oh, I hope not!