August 2008

SLA 2008 Session Reports

2008 Annual Conference Session Reports

Sci-Tech and Biomedical Divisions Academic Roundtable

Wednesday, Jun 18, 2008
Presented by: Science-Technology and Biomedical Divisions
Sponsored by: Elsevier, Inc, Thomson Reuters
Moderated by: Jan Schueller, Battelle, Seattle
Reported by: Kelly Blessinger, Assistant Reference Coordinator, Louisiana State University

This ninety minute session included lunch and seven roundtables for discussion. Each table was given a half hour to discuss their topic with an option for attendees to change tables after thirty minutes. At the end of the discussion period, each facilitator was asked to come to the microphone to give a summary of the major points on each topic. (Facilitators are in parenthesis).

Table 1: Debating the Future of the Reference Desk (Julie Arendt, Southern Illinois University Carbondale) While this table recognized that reference desk statistics are down everywhere, most felt reluctant to give up the collaborative nature and visibility that reference desks provide. A common theme was that the reference desk is a constant reminder that librarians are there to help.

Table 2: Recruiting Good Candidates for Open Positions (Regina W. Cannon, University of Georgia) This table suggested that beginning salary ranges should always be put on job advertisements for the most efficient and up front job descriptions. They felt that it is important for employers to be flexible both with starting dates and working schedules. Mentoring is also an important element to assist and retain new employees.

Table 3: What Affect Open Source Journals have on Academic Librarianship (Susan K. Smith, University of Kentucky) This table found that there were more questions than answers when it came to this topic. They agreed that the National Institutes of Health policy will have impact in this area, as well as embargo periods. Some federal organizations are forcing open access, and this raised many questions regarding resistance to change. They also recognized the growth of institutional repositories.

Table 4: Future of Library Space (Beth Bloom, Seton Hall University) This table recognized that the current trend currently of other entities (such as Information Technology) taking over and utilizing library space. More online collections also equate to a shrinking print reference collection.
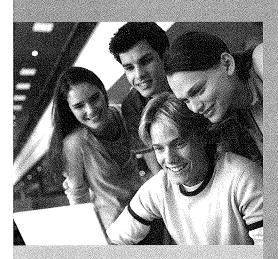
Table 5: Skills of Future Librarians: What Library Schools Should be Teaching (Marie Sparks CAS) This table recognized that library schools are primarily teaching theory instead of practice, and most students come out needing more of a practical background. Future librarians need to be made aware that group work becomes teamwork. Additional subject areas to be taught include organizational/interpersonal relationships, communication, management, speaking/presentation skills, negotiating skills, space planning and advanced search techniques.

Table 6: Generational Differences in Staff and Patrons (Nancy Curtis) This table talked about the millennial culture, in particular the differences in styles of parenting with the "helicopter parent" phenomenon. They also decided that differences were more cultural milieu than generational.

Table 7: How to encourage students to pursue science/technology librarianship (Linda Maddux, Reed College Library) One innovative idea was to participate/create a venue to tell others about science librarianship, such as career dating (like speed dating for careers).

Science & Technology Resources 101

Monday, June 16, 2008
Presented by: Science-Technology and Engineering Divisions
Sponsored by: IEEE
Speakers: Mary Frances Lembo, Hanford Technical Library Pacific Northwest National Laboratory and James Manasco, Ekstrom Library, Collection Development & Special Collections, University of Louisville
Reported by: Kelly Blessinger, Assistant Reference Coordinator, Louisiana State University

This year in Sci/Tech 101 Mary Frances Lembo and James Manasco discussed nanotechnology and aerospace resources.

Mary Frances began her presentation on nanotechnology resources with a brief definition. She pointed out that nanotechnology is multidisciplinary and can include fields such as physics, biochemistry and engineering. Mary Frances chose to primarily discuss resources involving physics. She showcased free websites such as DOE (Department of Energy) Patents: http://www.osti.gov/doepatents/; http://www.science.gov/, a federated search for many government agencies; and http://worldwidescience.org/, a gateway to over fifty million pages. She also demonstrated the usefulness in searching for this topic in subscription databases such as Compendex, CSA Materials Research Database, INSPEC and IEEE Xplore. Mary Frances mentioned that Compendex and Inspec users can now register for tools for collaboration (tags & groups). CSA and Compendex also are now SFX enabled (link resolving software). CSA also provides "discovery links" which allow for links to images and links to other databases.

Mary Frances went on to show some of the societies and associations related to nanotechnology, including the Center for Responsible Nanotechnology, the IEEE Nanotechnology Council, the International Association of Nanotechnology and the Materials Resources Society. These societies are helpful for obtaining information on current developments and events in the field and may include calls for papers.

Mary Frances gave examples of some of the leading journals in the field of nanotechnology including Nano Letters [ACS]; SMALL [Wiley]; Lap on a Chip [Royal Society of Chemistry]; Biosensors and Bioelectronics [Elsevier] and Nanotechnology [Elsevier]. She concluded with other avenues for research in this field such as Science Daily(http:/www.sciencedaily.com) and http://www.azom.com/, a site that gives the facts and not the hype.

James Monasco started his discussion of aerospace resources with a definition from Wikipedia. He then gave details on print materials for background information such as The Cambridge Aerospace Dictionary and The Standard Handbook for Aeronautical and Astronautical Engineers. James profiled useful websites such as http://aerofiles.com/, which details the history of military, civil and commercial aviation from 1903-present, http://www.aerospaceweb.org/ and http://www.astronautix.com/, all useful for background information. He continued with some databases, indexes and abstracts that are available for a fee such as Aerospace & High Technology Database (1962-), AIAA Electronic Library, Web of Science and Compendex, which James described as the "mother database for engineering disciplines."

Other web information included the Homeland Security Digital Library's web site, available at https://www.hsdl.org/, the NASA Technical Reports Server at http://ntrs.nasa.gov/, and the Aerospace and Defence Engineering page at http://www.intute.ac.uk/sciences/, which provides abstracts for every weblink. James then went on to show some useful sites for US and International Patents such as http://www.uspto.gov/patft/index.html, http://ep.espacenet.com/, and http://www.uspto.gov/web/menu/other.html.

He also discussed societies that might be helpful such as the European Space Agency (http://www.esa.int,) Royal Aeronautical Society (http://www.raes.org.uk/,) and the Society of Flight Test Engineers (http://www.sfte.org/.) James concluded the session by giving a cluster of other websites that would be helpful for research in this field. For further information, the PowerPoint slides can be found on the Conference Handouts portion of the SLA website.

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Who Cited Whom and Where? – Citation Tracking Tools and Evaluation

Monday, June 16, 2008
Presented by: Science-Technology Division
Sponsored by: Thomson Reuters, Scientific and Elsevier, Inc.
Moderated by: Susan Fingerman
Reported by: Carol Lucke, Biological and Physical Sciences Reference Librarian,
Naval Research Laboratory Research Library,
carol.lucke@nrl.navy.mil

This session was packed, with barely any standing room. Part one presented two speakers who have both written about and extensively used the citation analysis tools available to the library community. Part two consisted of three vendor presentations

The first speaker was Dana Roth, Chemistry Librarian at the California Institute of Technology and winner of this year's SLA Hall of Fame Award. Dana reprised and updated his well-known article in *Current Science* (89:9, p.1521, 2005), "The emergence of competitors to the Science Citation Index and the Web of Science" (http://www.ias. ac.in/currsci/nov102005/1531.pdf).

He first discussed multi-subject comprehensive databases like SciFinder, Scopus and Google Scholar, and demonstrated how to search each one to locate citations for specific authors or works. Subject specific databases that can be used for citation searching include the NASA ADS (Astrophysical Data System- http:// adswww.harvard.edu/) which contains many more *Astrophysical Journal* articles than Web of Science; CiteSeer (http://citeseerx.ist.psu. edu/) which is specific for computer science literature; SPIRES HEP (High Energy Physics, from Stanford- http://www.slac.stanford.edu/ spires/) and MathSciNet from the American Mathematical Society. Roth concluded by demonstrating the patent databases useful for citation gathering: Citation Bridge (http:// www.ias.ac.in/currsci/nov102005/1531.pdf), US Patent and Trademark Office (check for the "Referenced by" to find citations http://www. uspto.gov/), esp@cenet (http://ep.espacenet. com/) which includes European, WorldWide , and WIPO (World Intellectual Property Office) patents and Google Patents (http://www.google. com/patents).

Dr. Kiduk Yang, the next speaker, is an assistant professor at the School of Library and Information Science (SLIS) at Indiana University (IU) and is the director of the WIDIT (Web Information Discovery Integrated Tool) Research Laboratory (http://widit.slis.indiana.edu/). He spoke about the findings of his research project published in the *Journal of the American Society for Information Science and Technology,* (Meho, L. & Yang, K, *58*(13), 2105-2125, 2007): "The impact of data sources on citation counts and rankings of LIS faculty: Web of Science vs. Scopus and Google Scholar."

Dr. Yang explained what many librarians recognize as the limitations of conventional citation analysis: it's a one-dimensional assessment which can effect a misleading evaluation, and there is little competition to the standard for citation analysis, Thomson's Web of Science. His research project took 1100 publications in journals and conference proceedings from the IU SLIS department and collected the citations to those papers, for the time period 1996-2005, from Web of Science, Scopus and Google Scholar.

His findings indicate:
- Scopus had 14% more citations
- There is a 56% overlap and 42% uniqueness between WoS and Scopus
- Scopus covers a larger percentage of conference papers
- An individual's citation count can vary from 5% to 99% by combining the counts of the two databases and removing duplicates
- Google Scholar had twice as many unique citations as the union of WoS and Scopus
- Adding in nonduplicated citations from Google Scholar can increase the citation count from the union of WoS and Scopus by as much as 93%
- There are many more non-English citation counts in Google Scholar

While it took from 100 to 300 hours to obtain and remove duplicates from the union of WoS and Scopus citations, it took over 3000 hours to clean up the resulting citation counts from Google Scholar for the 1100 publications. While the three databases can complement each other in attaining the most accurate citation counts for our patrons, the amount of work needed to maximize the count is significant. He is working on a CiteSearch system to refine the search strategy, parse search results, eliminate duplicate citations and extract and normalize citation metadata. Check out Dr. Yang's web page at: http://www.slis.indiana.edu/faculty/ spotlight/index.php?facid=22

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The first vendor to speak was graduate student Jevin West from the University of Washington (UW) in Seattle (http://www.biology.washington.edu/index.html?navID=41&parecID=804). He is one of the developers of EigenFactor (http://www.eigenfactor.org/), a freely available journal analysis tool from Carl Bergstrom of UW. EigenFactor evaluates journals based on following citations to the journals where those citations occur. Much like Google evaluates the links to a specific website to rank it, EigenFactor assesses the journals that cite a particular article, who cites them, and so on. The resulting "Eigen Factor" a journal receives is a measure not only of its citation performance, but also its price, adjustments for differences in citation numbers across disciplines and uses five year data instead of two. Jevin also demonstrated some new developments coming to EigenFactor that will allow tracking of a journal's influence and links through time. Check out this great FREE tool.

Helen de Mooij, Scopus Product Manager, Elsevier, Amsterdam, demonstrated the newest enhancements to Scopus: Author and affiliation search refinements, citation tracker and, the newest, the journal analyzer. A user can select up to ten journals and graphically view their performances for any time period from 1996 to the present. Check out this website for a more detailed explanation: http://info.scopus.com/journalanalyzer/.

Ann Kushmerick, Manager, Research Evaluation and Bibliometric Data Global Sales Support for Thomson Reuters, finished out the session with descriptions of new and upcoming improvements to Web of Science. Thomson is offering a free website, Researcher ID (http://www.researcherid.com/), at which researchers can register and be assigned a unique ID. The goal is to prevent the common problem of author misidentification. She briefly presented some new enhancements: analyze results, citation report and citation tree (to be released soon). A new product called the Institutional Citation Reports Database offers a new bibliometric measure, the C Index. This customized tool normalizes citation counts across scientific fields and takes into account that some sciences are more highly cited than others.

Look for these informative presentations on the Sci-Tech Division website.

Science of Coffee

Monday, June 16, 2008
Presented by: Science-Technology, Physics-Astronomy-Mathematics, Food, Agriculture & Nutrition, Biomedical & Life Sciences, Chemistry, and Pharmaceutical & Health Technology Divisions
Sponsored by: Prenax, Inc., New England Journal of Medicine, John Wiley & Sons, Inc.,Blackwell, Annual Reviews, and Nature Publishing Group
Reported by: Carol Lucke, Biological and Physical Sciences Reference Librarian,
Naval Research Laboratory Research Library, carol.lucke@nrl.navy.mil

A lively session, the Science of Coffee was presented by Dr. Joe Vinson of the University of Scranton. Nature handed out a compilation of coffee articles recently published in Nature magazine. Coffee was available for all listeners.

Dr. Vinson is an analytical chemist who teaches at the University of Scranton in Pennsylvania. His undergraduate work in chemistry was completed at the University of California, Berkeley during the "free speech 60's," and he attained his Ph.D. in Physical, Organic and Analytical Chemistry at Iowa State University, Ames, Iowa. A member of the American Chemical Society's Speakers Bureau, Dr. Vinson often gives presentation on the science of coffee, as well chocolate, and has authored numerous scholarly articles. Please visit his website for more information: http://academic.scranton.edu/faculty/VINSON/

After listing the general reasons coffee is so popular (a habit, to get going, as a pick-me-up) Dr. Vinson began with an historical overview of the coffee bean. The origin of the name has a couple of possibilities: from the Arabic quahwa (for wine) or possibly it was named for the Kaffa region of Ethiopia where it was first gathered, roasted, watered and tasted around 1000 BC. The first coffee house was in Istanbul, Turkey, and Pope Clement the VIII is credited with popularizing coffee in the late 1500's. When asked to declare coffee the "bitter invention of the devil" because of its popularity among Muslims, he first decided to try it. Reportedly he liked it so much that he "baptized it" in order to "cheat the devil."

Other bits of coffee trivia include:

- The shutting of 2000 coffee houses in London after a women's petition against coffee
- Cappuccino originated when Vienna was rescued from the Turks in 1683. The rescuers were led by a Capuchin monk. When the Turks left their coffee behind, the monk tried it with milk and cappuccino was born.
- In 1714 Louis XIV received coffee trees as a gift and sent them to Martinique: the first coffee cultivation in the New World.
- The Boston Tea Party led to the preference for coffee in the US
- Germans developed the decaffeination process
- Admiral Joe Davis of the US Navy outlawed "grog" for sailors on duty and told them to drink coffee: hence a "cup of Joe"
- Voltaire drank 40 cups of coffee a day

After treating the audience to many interesting statistics about coffee (What country consumes the most? Finland), Dr. Vinson began our basic chemistry lesson. Chlorogenic Acid is the major antioxidant found in coffee. Free radicals are normal by-products of cells burning oxygen. Free radicals attract electrons from other molecules, thus causing damage to the body. Antioxidants capture free radicals and short circuit the damage. Antioxidants make up about 40% of a serving of coffee, more than other antioxidant donor (listed in descending order of percentage of antioxidants): tea, chocolate, bananas, dry beans, corn, lager beer, red wine, apples, tomatoes and potatoes.

Coffee also contains caffeine (about 80 milligrams per serving). Caffeine is steroid oil which acts as a stimulant. Studies have shown that the brain actually changes after coffee ingestion: there is improvement in one's ability to perform complex tasks, a more positive attitude can be measured and a recent French study indicates that caffeine may actually slow the decline of memory due to the aging process. A Finnish study indicates that 3 cups a day are optimal for slowing cognitive decline.

Why does caffeine stimulate you? It appears that caffeine binds to the sleep inducer receptor in the brain. Just the smell of coffee (or chocolate) has been shown to increase the accuracy and speed of typing, and to reduce stress.

Other benefits? Caffeine increases sports endurance and is a legally allowed stimulant for Olympic athletes. The risk of Type 2 (adult onset) diabetes is lower for coffee drinkers. While caffeine slightly raises blood pressure, the antioxidants in coffee blunt that effect. Sexual function in the elderly has been shown to increase with 1 cup of coffee per day. Coffee is NOT linked to heart disease, cancer or osteoporosis.

So pour yourself a cup of coffee, check out www.cosic.org from the Institute for Scientific Information on Coffee and then go to the Sci-Tech Division website for the presentation slides.

E-Science, Cyberinfrastructure and Information Professionals

This symposium series encompassed four sessions spread out over Monday through Wednesday, and sponsored by different combinations of Divisions. It was a huge, very successful and innovative effort.- *ed.*

Cyberinfrastructure: Building Bridges
Monday, June 16
Presented by: Engineering and Biomedical & Life Sciences Divisions
Sponsored by: Basch Subscriptions, inc.
Moderated and Reported by: Daureen Nesdill, and April Love,University of Utah

The NSF Office of Cyberinfrastructure developed the Sustainable Digital Data Preservation and Access Network Partners (DataNet Partners) program, over which Lucy Nowell is Director. She explained how the program supports projects that will integrate the expertise of scientists with that of information professionals and experts working in cyberinfrastructure, computer and information sciences to establish protocols that will provide reliable preservation and access to digital data.

Dr. Nowell began her talk with the film clip *Did You Know?* It bombarded us with astounding statistical one-liners about the changes resulting from the use of computers. Did you know that 70% of four-year-olds have used computers? This led to a discussion of infrastructure – roads, utilities, water and now the grid. The grid is the infrastructure that allows scholars and researchers to communicate, conduct research, and acquire data from sources worldwide using the net. Larger corporations have already constructed infrastructures to facilitate

communication and the sharing of information – they just haven't labeled it cyberinfrastructure or e-science.

Laboratories, dance studios, observatories, professional societies, communications media, museums, computational infrastructure, and, yes, libraries make up the research infrastructure. Libraries' infrastructure includes the online catalog, citation databases, online journals and books, computer network services, email, IM, wikis, blogs, and of course Google and other search engines. The computational infrastructure is becoming even more important to us as information professionals. The Internet, local networks, high performance computers, middleware, virtual organizations and data comprise the computational infrastructure.

The data arena is where information professionals have a growing role. Think of all the data generated from research efforts and paid for by tax dollars or, in the case of corporations, the price of a product or service. What happens to all the data generated after research projects have been completed? We have all heard how NASA lost more than 13,000 tapes from the Apollo moon missions. By contrast consider global warming. Because we do have some data for comparison studies from decades past, we know about the changes in global weather, the shrinking of glaciers, etc.

Cyberinfrastructure: Informatics Across the Biological Science
Tuesday, June 17
Presented by: Engineering, Biomedical & Life Sciences, Knowledge Management, Pharmaceutical & Health Technology, Physics-Astronomy-Mathematics Divisions and Natural History Caucus
Sponsored by: IEEE, Elsevier, Inc.
Moderated by: Ruth Gustafson, University of California, Davis

The Tuesday morning session introduced us to informatics.

Catherine N. Norton, Library Director of the Marine Biological Laboratory, Woods Hole Oceanographic Institution, spoke first on biodiversity informatics. She began by showing the Encyclopedia of Life (EOL), a digital library of all species. The EOL project is made up of five component groups or subprojects. The Species Sites Group, the Biodiversity Informatics Group, Scanning and Digitization Group, Education and Outreach Group, and the Biodiversity Synthesis Group are working together to provide access to all published information about any named species. The problem is that an organism can be identified by multiple names. The difference between scientific and common names is understood, with the scientific name being the authoritative name, but many species have multiple scientific names. This is where biodiversity informatics comes into play. NameBank is a biological name server authority file that is able to merge the various names of species from all known resources. NameBank

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Related URLs

Agenda for Developing E-Science in Research Libraries: ARL Joint Task Force on Library Support for E-Science Final Report & Recommendations, Nov. 2007
http://www.arl.org/bm~doc/ARL_EScience_final.pdf

Biodiversity Heritage Library
http://biodiversitylibrary.org/

Cyberinfrastructure Vision for 21st Century Discovery
http://www.nsf.gov/pubs/2007/nsf0728/index.jsp

Did You Know?
http://www.public.iastate.edu/%7Emcleod/didyouknow/

Encyclopedia of Life (EOL)
http://www.eol.org/index

NameBank
http://www.ubio.org/index.php?pagename=namebank

NSF Office of Cyberinfrastructure
http://www.nsf.gov/dir/index.jsp?org=OCI

Open source ELN software developed by Pacific Northwest National Laboratory
http://collaboratory.emsl.pnl.gov/software/eln/

Planetary Biodiversity Inventories (PBI)
http://www.nsf.gov/pubs/2006/nsf06500/nsf06500.htm

Science Commons
http://sciencecommons.org

Understanding Infrastructure: Dynamics, Tensions, and Design
http://deepblue.lib.umich.edu/handle/2027.42/49353

U.S. Long Term Ecological Research Network (LTER)
http://www.lternet.edu/

now contains 10.7 million names.

Quentin B. Wheeler, Vice President and Dean at Arizona State University, continued the discussion of biodiversity informatics from a slightly different perspective. He discussed two of the most recent taxonomy projects, the Planetary Biodiversity Inventories (PBI) sponsored by the NSF, and the International Institute for Species Exploration (IISE) at Arizona Sate University. Both endeavors are utilizing cyberinfrastructure to build inventories of earth's species for the purpose of study. These inventories include specimens and data of all species and subspecies including domestic plants and animals.

Neil Rambo, University of Washington Libraries, spoke on academic library support for bioscience research. The new demands on libraries, including data management, preservation and curation need to be addressed. [See Wednesday's session for continuation of this talk]

William Michener of the Biology Department at the University of New Mexico spoke of longitudinal studies during the session. The U.S. Long Term Ecological Research (LTER) Network, initiated in 1980, is a network supporting the collaborative research of 1800 researchers at 26 sites around the country investigating ecological processes over long temporal and broad spatial scales. The Network facilitates the preservation and sharing of these large datasets.

Replication of experiments, such as the LTER studies, can be expensive. By preserving and sharing data, the overall cost of research is reduced. Cyberinfrastructure facilitates both interdisciplinary studies across geopolitical boundaries and the sharing of preserved data. This in turn promotes participation by those researchers and students in geographically isolated institutions and at institutions not able to afford expensive scientific equipment.

Cyberinfrastructure: Breaking Rules, Building Bridges for Both Corporate and Academic Librarians
Wednesday, June 18
Presented by: Engineering and Information Technology Divisions
Sponsored by: IEEE
Moderated by Daureen Nesdill, University of Utah

Lee Dirks, Director, Scholarly Communications at Microsoft Corporation, explained how the archiving of data will not only allow research to be interdisciplinary and conducted on a global scale, but will also allow for access to complete datasets.

Lee reported that the U.S. Interagency Working Group on Digital Data (IWGDD) is working towards storing all research data generated by federal agencies in publicly accessible repositories. The increasing call for research-generated data to be accessible and preserved requires the expertise of information professionals.

At the same session Neil H. Rambo, Director of Cyberinfrastructure Initiatives at the University of Washington Libraries, discussed the strengths of information professionals. Working with open access has provided experience working globally, developing policy and best practices and creating repositories. Standards and interoperability tools have been mastered. Understanding the life cycle of information, archiving, preservation and cataloging are skills that have long been practiced by information professionals.

Dr. Rambo continued his talk on opportunities for information professionals to become involved in research. The basis for his talk was the "ARL: Report of the Joint Task Force on Library Support for E-Science". In addition to "managing research assets" (i.e. data curation) the task force suggested that information professionals support emerging communication and publication formats (blogs and journals with links to associated data that can be manipulated) and virtual organizations (collaboration tools). Information professionals are in a position to contribute to policy development (open access, ScienceCommons).

Lee Dirks discussed ScienceCommons in greater detail. Cyberinfrastructure, or as Lee referred to it, "collaborative infrastructure," involves more than just the hardware. It involves the legal and policy infrastructure that supports sharing. The goal of the ScienceCommons is to develop policies for a decentralized collaborative infrastructure that will facilitate the discovery and reuse of data – autonomous sharing. NSF is a player with its Global Science Data Network Infrastructure.

Cyberinfrastructure is changing the work of information professionals in both corporate and academic settings. In the corporate world, proprietary research results are the norm whereas in academia research results are published in a public forum. But, in academia the shift towards technology transfer is changing what will be public – or allowed to be shared. Information professionals are in a position to influence the outcomes and we should not be hesitant to speak.

Daureen Nesdill
April Love
University of Utah
J. Willard Marriott Library

[ED Note: see separate report on Cyberinfrastructure: Everything You Need to Know About Electronic Laboratory Notebooks]

Cyberinfrastructure: Everything You Need to Know About Electronic Laboratory Notebooks

Monday, 16 June 2008
Presented by: Chemistry, Engineering, Food, Agriculture and Nutrition, and Physics-Astronomy-Mathematics Divisions
Sponsored by: Thomson Reuters
Moderated by: Rachel Ellison, Ecolab, Inc.
Reported by: Jeanine M. Scaramozzino, Research Librarian for Physics, Astronomy & Mathematics, The UCI Libraries, jscaramo@uci.edu

Michael Elliot, CEO of Atrium Research and Consulting, was the opening speaker for this session. He discussed his experience as an electronic laboratory notebook consultant and developer in "Electronic Laboratory Notebooks: Market and Technology Overview" (http://www.atriumresearch.com/library/AtriumResearchSLA2008%20Rev%202.pdf).

Electronic library notebooks (ELN) were described as an effective tool for knowledge capture and the use of research data, including failed processes. Currently ELN use varies in industry between science-based R&D (22%), biopharmaceutical (27%), synthetic chemistry (35%), government (4%), academia (4%), and quality assurance/quality control (9%). ELNs usually have either non-specific ELN characteristics such as "generic", strong IP protection or e-signatures, competition against paper workbooks, content management to share results; or specific ELN characteristics, though some users find this disruptive because they are forced to use computer data entry screens instead of "regular" lab notebook entry.

Elliot described three groups of ELN software: top-tier (CambridgeSoft, IDBS, Symyx, VelQuest), second-tier (Agilent, Contur, LABTrack, Kinematik, Labtronics, Rescentris, Siemens, Waters), and custom development platforms (Microsoft SharePoint, EMC Documentum, OpenText Livelink). Some ELN software has features attractive to certain researchers, such as IDBS used by biologists, CambridgeSoft favored for chemistry, and VelQuest for regulated laboratory compliance such as FDA monitored studies.

A lack of standardization for long term record preservation among software developers is a major challenge to implementation of ELNs. Archival data is often stored in PDF/A but these formats fail for dynamic data (such as video, numerical data, computer code). No vendor has "best in class" functionality across multiple domains so no one product may work for all customers. Elliot commented on academia's slow adoption of ELN. Graduate students and post doctoral researchers who move to industries that rely on ELN use would benefit from earlier experiences.

Elliot discussed December 2006 changes in the US Federal Rules of Civil Procedure (FRCP) that specifically addressed electronic record discovery during civil and criminal legal actions. E-records are increasingly accepted as documents of record, raising the potential for changes to US Patent laws to allow electronic documentation. However, organizations must pay proper attention to records management to prove compliance. Some companies become "sloppy" after implementing ELNs, assuming that the technology will solve all records management issues. ELN is a powerful tool, but organizations must have established rules and policies for intellectual property protection.

Research is currently being conducted on the benefits of ELN. Usage studies show that implementing ELN properly can improve workflow by providing more time to conduct experiments instead of completing paperwork. In a survey of users of an ELN at the University of Cincinnati Biomedical Research Center, users reported that time available to work on experiments increased 43.8% over previous paper-based reporting. The biggest challenge is the need to overcome the cultural barriers where ELNs are being implemented. Implementation advice is to start small, show success and build from there – the "spiral" approach.

Carl Voigt presented "Electronic Laboratory Notebook – Eastman Chemical Experience". He described the company's implementation of the CambridgeSoft E-Notebook platform, shared his product experience, and provided recommendations about successful timing and phase implementation when adopting an ELN. Eastman selected CambridgeSoft's E-Notebook (Ver. 9) for its electronic signing and witnessing features, offline operation capabilities, ability to work with common desktop applications (ex. Microsoft Office Suite, PDF, TIFF, ChemDraw), and ability to collect electronic files documenting experimental results, including the supporting data.

Voigt shared issues and lessons learned regarding the initial implementation. These were: (1) use the recommended software configurations for initial installations and allow time for adjustments, (2) schedule the required training time for users, (3) be aware that not all analytical data can be imported into the software, (4) know that not all data can be uploaded directly from bench to information management systems, (5) initially there may be challenges due to cultural issues with researchers around "sharing" and technical support requirements, (6) there may be initial resistance from researchers but he found that most realized the benefits of easy accessibility to work from technicians within their groups.

Computer Science Roundtable

Tuesday, June 17 2008
Presented by: Science-Technology, Engineering, Information Technology and Physics-Astronomy-Mathematics Divisions
Sponsored by: IEEE, ACM
Moderated by: Nancy Kellett, Florida State University
Reported by: Daniel Dotson, The Ohio State University

1. Ebooks as Textbooks
   Some people are using ebooks as textbooks. Some of the problems identified include searching issues, i.e. students have trouble finding information, turnaways/user limits, and federated searching Some ebooks are rented content that students can purchase access to for a specified time period. The general consensus was that they may work better for supplemental information.

2. Lecture Notes in Computer Science (LNCS)
   Members of the group expressed the need for individual records for LNCS electronic volumes in the catalog, which would hopefully drive up usage. Some problems were noted with the search engine, federated searching, and not working correctly with some databases, including Google Scholar and WorldCat Local.

3. ACM & searching
   People have noted some changes in the ACM search engine and other potential changes are in the works, such as facets. There was a general consensus on the need for more communication from ACM. Other issues discussed include the need for more information in author profiles, institutional views, and open linking.

4. Database errors – collaborate and correct?
   Issues discussed included:
   Sending problems to tech support
   Poor problem support from ACM
   Massive data problems in Scopus
   The need for contacts for editorial feedback (as opposed to tech support)
   Compendex and IEE/IET links
   INSPEC (Ovid) and link resolvers
   Name changes of journals (including changing the titles of old journals to the new title, creating possible confusion)

5. Survey Results – Home for Computer Science
   Parker Ladwig lead the presentation and discussion of the results of the survey on a home for computer science in SLA. Most of the respondents to the survey were members of PAM, followed by SciTech, IT, and Engineering Divisions. A majority of those surveyed believed that the current level of support for computer science within SLA was adequate.

   The majority felt that computer science belongs in one division – but not its own division. There was no majority opinion as to which division. The idea of making computer science a section within a division was also brought up. The idea of having a computer science listserv was brought up and this will be examined.

Hot Science Technology Sampler

Monday, June 16, 2008
Presented by: Chemistry, Biomedical & Life Science and Information Technology Divisions
Sponsored by: Thomson Reuters, Scientific, Nature Publishing Group
Reported by: Jeanine M. Scaramozzino, Research Librarian for Physics, Astronomy & Mathematics, The UCI Libraries, jscaramo@uci.edu

Royal Society of Chemistry

Richard Kidd of the Royal Society of Chemistry (RSC) discussed the Society's role in providing free teaching material and his ideas on the trajectory of society publishers. He described RSC's Project Prospect with its enhanced teaching tools for approximately 6,000 articles from 2007-present. The project includes: enhanced HTML article displays including gene and biological ontology terms and compound details; a new structure search option that allows searching by SMILES codes or displaying exact or close match results; text mining; links to patent information in SureChem; and structure download into ChemDraw. Future enhancements are planned, such as preparation recipes and related compound searches. Project Prospect will be available to subscribers at no additional cost. It demonstrates some of the possible ways to help users discover material they need by overcoming the problems of current database indexing. Other notes of interest included mention of a RSC project called SciBorg (http://www.sciborg.org.uk/) that uses data mining to extract materials from scientific publications. RSC's recently added titles have generated strong impact factors for 2007: *Soft Matter* (IP +5.0) and *Molecular Biosystems* (IP ~3.0). The Society is introducing three new titles: *Energy & Environmental Science* in July 2008, and *Metallonomics* (Materials) and *Integrative Biology* (Chemical Biology) in 2009.

Health Island Science Library in Second Life

Carol Perryman of the Allied Library System, community health librarian in the Health Island Science Library, discussed current medical library reference and consumer health initiatives in Second Life. These included National Library of Medicine outreach programs on technology mentoring, and training for people with disabilities and chronic medical conditions to allow for better accessibility to information. The Consumer Health Library has art displays on medical conditions such as depression, classroom instruction on the use of PubMed,

AIDS/HIV support groups, and general health information literacy tools for the lay person and more. Perryman discussed the various challenges and issues librarians face in a virtual world, including the danger of success, and how to get started.

Nature Publishing Group

Hillary Spencer of Nature Publishing Group discussed *Nature Precedings* (http://precedings.nature.com/), a free service initiated in June 2007 to collect grey literature, monograph manuscripts, pre-prints, conference posters, and slide presentations. *Nature Precedings* was described as "grey literature 2.0". It allows users to add and utilize commentaries, tagging, voting and RSS feeds, email alerts, social networking, Dublin Core Metadata, etc. The site acts as a free creative commons with full text that is centralized, easily searchable, provides access to timely research that is not peer reviewed or copyrighted, and allow authors to post newer versions of materials. Author benefits are numerous. The site provides third party provenance of ideas, allows ideas greater exposure, provides for pre-publication feedback/commentary, and is a repository for null or negative results. Author concerns include: being "scooped" by others, the potential for plagiarism, general discomfort with sharing online, fear that contributing to the site might prevent publication due to rules regarding pre-prints, etc.

Thomson Reuters

Bob Stewart of Thomson Reuters discussed Enterprise Alerts Manager. It uses RSS to manage and organize flows of information from numerous feed sources (database, internet, or internal source). Centralized content management includes credentialing, information feeds for specific content, editorial news, mobile delivery of content, group feed reporting, and administrative control of user subscriptions. The product makes it easy to review, annotate and share content from multiple sources, attach articles with comments, and target selections to specific groups. The product feeds directly into MS Outlook and the result looks like email, giving information professionals a content distribution solution that decreases email load.

Boeing Library Services

Josh Walters of Boeing Library Services presented "Blending 2.0 Processes with 1.0 Tools". He described using existing "1.0" technologies to create custom library web pages with a "2.0"

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character and to provide an instructional bridge for institutional cultures that are moving towards "2.0". Library Services provides company groups with communication tools for their specific projects or research areas. Such customization acts as a "Search Integrator" that can introduce process and access controls, build custom search widgets, construct group landing pages, recreate special collections, create catalogs and group custom views for information resources, etc. Services are available a la carte (custom landing page, special collections, Access contact list, administrative panel) or in bundles (Special Collections Suite, Significant Body of Work collections, My Library pages). The Library gives working groups a common place to upload their "knowledge" and this information is thus "donated" to the library. This allows for a significant body of work to become archived knowledge and a scientific/historical page for future reference. These services create a stake in the library for users and build support of the library.

Standards Update

Monday, June 16, 2008
Presented by: Engineering, and Petroleum & Energy Resources Divisions
Sponsored by: American Society of Civil Engineers (ASCE) and The Scientific Business of Thomson Reuters.
Moderator and Reporter: Lee Pharis, Manager, Information Resources, Exponent, Menlo Park, CA, lpharis@exponent.com.
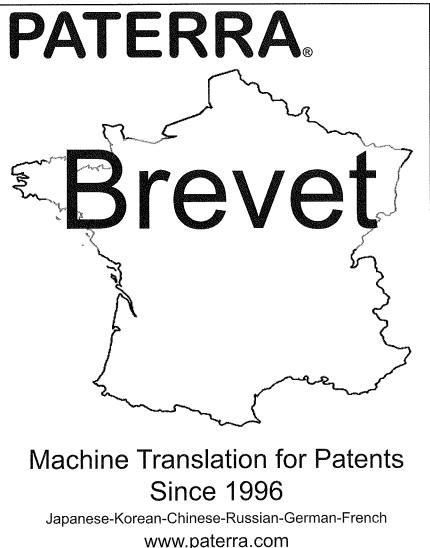
The Standards Update drew about 85 attendees this year. Thanks very much to Daureen Nesdill, Engineering Division Chair, for ensuring an appropriately sized room. Nine speakers, representing both standards developing organizations (SDOs) and distributors, shared this past year's highlights and took questions from the audience.

ANSI – Leanne Lowry, Marketing Manager, llowry@ansi.org.
http://www.ansi.org

ANSI is not an SDO, but accredits SDOs with expertise in particular subject areas to write and maintain technical documents relating to those industries. Leanne described ANSI's purpose and coverage, and mentioned that ANSI has compiled ISO 14000 into interactive sections on the web. This is the environmental management standard, containing over 20 guidelines and procedures including life cycle assessment, greenhouse gases, communication guidelines and the integration of environmental aspects into product design and development.

ASCE – Bill Nara, Marketing, wnara@asce.org
http://www.asce.org

American Society of Civil Engineers (ASCE) has 55 standards. ASCE 7 "Minimum Design Loads for Buildings and Other Structures" is "the"

standard pertaining to minimum design loads. Last revised in 2005, this standard has changed to a longer, approximately 5-year, revision cycle. It is published with every other edition of the International Building Code (IBC).

FEMA 356 is now SEI/ASCE 41-06, and FEMA 310 is SEI/ASCE 31-03. These are national consensus standards in their final forms. SEI/ASCE Standards 41-06 and 31-03 were developed from the FEMA pre-standards and represent state-of-the-art knowledge in seismic engineering.

ASME – Philip DiVietro, Managing Director, Publishing, divietrop@asme.org.
http://www.asme.org

American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (BPVC) supplements have been released on time. The 2010 BPVC will be released in XML. New standards relating to national security and the biomedical and pharmaceutical industries are in development. ASME standards are developed in an "honest broker" fashion, meaning one does not need to be an ASME member to contribute. Half of the contributors are not members.

ASTM International – John Pace, VP Publications & Marketing, jpace@astm.org.
http://www.astm.org

Almost half of the American Society for Testing and Materials' (ASTM) business is outside the U.S. They offer about 12,000 standards and test methods, and continue branching into new areas using new technology delivery modes, e.g. portals. Globally, ASTM is working with several other SDOs to develop and market specific packages or portal offerings. One example is a joint effort with DIN [German Standards] to develop a comprehensive toy safety standard package including both ASTM and European standards and regulations. ASTM is aggressively working on translations of its standards into additional languages such as Spanish, Chinese and Russian. These translated standards are "double-branded" with copyright and authentication to provide controlled, official versions of the translations.

ASTM's relationship with the Copyright Clearance Center is dissolved, so users with CCC annual licensing are no longer covered for redistribution of ASTM publications. ASTM's approach to digital rights management (DRM) has been education,

with perceived infractions met with cease-and-desist admonitions. Contact ASTM with any questions

East View Information Services – Carolyn Fennell, Marketer, carolyn.fennell@eastview.com.
http://www.eastview.com

East View provides information resources from Russia, China, and the countries of Eurasia. Purchase standards online from Russia (State Standards of the Russian Federation, a.k.a. GOST), and soon, from China. Descriptions of the 23,000 Russian standards can be browsed in English. If English is needed but not in stock, a translation can be purchased from East View. Publications are provided in PDF, FTP, and hard copy, and can be expedited. Carolyn gave the audience $5 coupons for 5 minutes of their time to complete a survey - you should have been there!

IEEE – Michael Spada, Director of Product Marketing, m.spada@ieee.org. http://www.ieee.org

IEEE has nearly 1,300 standards and projects under development in both traditional and emerging fields, and is working closely with international organizations like ISO to make its standards more widely adopted. Individual standards or subscriptions are accessible directly from IEEE via www.ieee.org/ieeexplore. Draft standards are now available as a package to IEEE/IET Electronic Library (IEL) subscribers. IEEE is also offering a customized package called "Standards Choice," that enables a user to download any active, draft or archived IEEE standards on a variety of topics. Michael had a short, fun contest, with two winners receiving high quality prizes. You really should have been there!

IHS – Steve Noth, Product Development, Steven.Noth@ihs.com.
http://www.ihs.com

IHS has merged its two divisions of single documents and subscriptions distribution. In the last 18 months, IHS has made 14 acquisitions of other content companies, including Jane's Information Group.

"IHS Standards Expert", a standards and technical content management tool, is fully rolled out. NASA is so impressed with this tool

that it has customized it to include their own standards and content within their firewall.

Linda Hall Library – Chris Olson, Reference Librarian, olsonc@lindahall.org
http://www.lindahall.org/

The archival standards collection housed by the Linda Hall Library (LHL) are the most requested. The LHL librarians have embarked on a standards cataloging project with OCLC using Leonardo, Linda Hall's online catalog. Bibliographic reference is also a strength and the librarians can assist in identifying which standards you need or help piece together a standard's history.

Techstreet, a business of Thomson Reuters
– Andrew Bank, Director, Business Development, Andrew.Bank@thomson.com and Brian Kelley, Global Account Manager, brian.kelley@thomsonreuters.com.
http://www.techstreet.com/

Techstreet will begin offering "BuildingBlocks" subscriptions. Clients will pay one upfront fee and then build-as-you-go through the license period. This plan is a good fit for organizations that need to populate their subscription as the need arises, without additional fees.

Techstreet now offers ISO, IEC and DIN subscriptions worldwide. Previously ISO and IEC subscriptions were available only in the U.S. IEC single-download PDF files are also now available globally. ❖