

## **Biomedical and Life Sciences Division**

### **Washington Poster Session:**

#### **Innovations and Best Practices in Biomedical and Life Sciences Libraries**

**Tuesday June 16, 2009**

**5:00 PM - 6:30PM**

#### **1. Assessing Researchers' Searching Skills and Attitudes Concerning Online Bioinformatics Resources**

Michele R. Tennant, Health Science Center Libraries and UF Genetics Institute,  
University of Florida

The National Center for Biotechnology Information (NCBI) provides numerous online databases and research tools for the basic scientist, particularly in the areas of genetics, bioinformatics, and molecular biology. The breadth of these resources is staggering, with new resources appearing regularly and existing resources changing frequently.

This research assesses the knowledge of researchers in using a number of NCBI resources, including PubMed, GenBank, the Structures database, and BLAST. Through one-on-one observations, researchers' search paths were recorded and compared. Participants were asked to rank their expertise and the question's relevance to their research on a question-by-question basis. Use (or nonuse) of help-related resources was recorded. Focus group sessions explored researchers' perceptions of NCBI and other online bioinformatics resources.

Analysis of the data suggests that researchers are less effective at searching the databases than they perceive themselves to be. Analysis of search paths reveals that searchers rarely use online help tools when they do not know how to reach an answer, that search paths vary widely among individuals, and that Google and PubMed are resources commonly used to answer difficult questions. Focus group comments suggest that although researchers are impressed with the vast array of resources available from the NCBI, they are often unaware that specific resources already exist on the NCBI website. These results are expected to have implications for web interface design, help tool development, and library-based bioinformatics services, instruction and marketing.

This research has been funded by the Medical Library Association's 2007 Donald A. B. Lindberg Research Fellowship.

## **2. Literature Searching for CADTH's Health Technology Inquiry Service (HTIS)**

Monika Mierzwinski-Urban, Information Specialist  
Canadian Agency for Drugs and Technologies in Health (CADTH)

Decision makers often must make decisions quickly and cannot wait for a full HTA. CADTH's Health Technology Inquiry Service (HTIS) provides the best available evidence within an agreed upon timeframe, to inform decision making. We compare HTIS literature searches to searching for a full HTA.

The main challenge of an HTIS search is the limited time available. Second, even after discussion between the decision maker and manager-expert, the questions often remain broad in scope. In addition, there is often very little evidence on new and emerging technologies. Because each new request requires different types of information and the depth of the final HTIS report varies, an adaptive approach is needed.

In contrast to HTA, we focus on precision in retrieval rather than recall. We apply tighter filters, use an abbreviated search checklist and strict date and language limits. Instead of searching multiple databases, we rely heavily on Internet searching and subject-specific grey literature (for example association websites). As well, HTIS usually searches for specific study types only such as HTA reports, systematic reviews and evidence-based guidelines. To ensure quality and rigour, all database strategies are internally reviewed by another Information Specialist.

Evaluations of the HTIS have been very positive. Most respondents were very satisfied (88%) or satisfied (11%) with the service in general. With regards to content, 56% and 38% responded that they were very satisfied or satisfied, respectively.

Despite tight deadlines, it is possible to perform quality searches that provide valuable and timely information to decision makers.

## **3. Strategic Planning for Biomedical and Life Science Libraries through Technology Innovation**

Andrew Clark, Group Leader, Library Services UCB Celltech

Innovative technologies can play a critical part in the way that any specialist library re-defines itself during challenging times. Strategic library planning and the need to maximize the value of both the content and the services delivered by the function is essential to ensuring that any specialist library doesn't remain static but is an invaluable high performing asset to the corporation and continues to meet the growing information needs of library users and corporate executives.

Challenging the organization and embracing difference, information experts that feel empowered in their responsibilities and have a strong understanding of industry trends and changing business needs is essential in developing library vision and the key to successful operations in the future.

Our success with technology innovation has enabled the small specialist global library team at UCB to make changes across the organization and significantly impact corporate initiatives of 'making life simpler' and 'pruning bureaucracy'. It has enabled information experts to rise to the challenges of resourcing constraints, copyright compliance, the management of multi site licenses, the administration of global users with varying needs and maximizing the value of library expenditure when budgets are restricted.

Bringing about change through innovative technology has ensured that as a specialist function the library remains a high performing team, a leader in the field and institution and has strategic success in the next ten years and beyond.

#### **4. Moving the NIST Research Library Laboratory Liaison Program into the Future**

Nancy Allmang, Biosystems and Health Liaison, National Institute of Standards and Technology (NIST) Research Library

Susan Makar, Chemical Science and Technology Laboratory Liaison, National Institute of Standards and Technology (NIST) Research Library

Bioscientific measurement and standards research is conducted across all work units within the National Institute of Standards and Technology (NIST). The NIST Research Library supports research in the biomedical sciences and other scientific fields including physics, chemistry, and engineering.

The Library's Laboratory Liaison Program has roots going back to 1997. At first the program centered around traditional activities such as in-depth research, collection development, and training. It later expanded to include more collaborative dialog with customers such as embedding liaisons in formal working groups and developing an analysis method to gauge the impacts of customer publications in proceedings papers as well as journal articles. As the program evolved, customer perceptions and expectations of the liaison role changed from one of support to a collaborating partner in research.

What is our liaison team's 2009 vision for the future, and how will we move toward it? This poster highlights our plans to work even more closely with customers as we: exchange ideas with them by means of a blog; market liaison services with podcasts made available through iTunes University; set up informational meetings with teams of laboratory managers and Research Library Advisory Board representatives; and, extend our portfolio of citation/impact analyses to include measures such as the h-index, Eigenfactor and Article Influence, and SCImago journal and country rank scores.

The poster also describes an innovative liaison project that gauges the impact of the Research Library's collection by tracking the use of journals as references in highly cited, recently published NIST papers.

## **5. Have Laptop Will Travel: Experiences of a Field Librarian**

Patricia H. Dawson, Science Instruction-Reference Librarian, Moore Library, Rider University

With the advent of the Internet and ever expanding content available 24/7, and now the arrival of digital natives who prefer social networking tools, many libraries are experimenting with new ways to conduct reference services. Reference librarians are getting out from behind the traditional reference desk and meeting students out in the library, in study lounges in their departments, or in the virtual world as discussed in detail in a newly published book, *The Desk and Beyond: Next Generation Reference Service* by Madden and Steiner.

The proposed poster will present the "Field Librarian" model that has been used as one way of reaching out to Science and Psychology students and faculty at Rider University, a private liberal arts institution in NJ. This model is analogous to the clinical librarian experience and is a modified version of the model described in Madden and Steiner's book. The poster will describe the experience of setting up a temporary reference service in Science Hall in the fall 2007 and 2008, outlining the challenges and plans for future "Field Librarian" expeditions. Handouts will include an annotation and glossary of terms described in *The Desk and Beyond: Next Generation Reference Service* as well as copies of a survey instrument devised by the Vale Reference Services Committee to determine the prevalence of non-traditional reference services in academic libraries in NJ.

## **6. Desperately Seeking Science: Guiding Lower-Level Biology Undergraduates from the Textbook to the Bench through Focused Information Literacy Education**

Brian J Winterman, Life Sciences Library, Indiana University  
Jacquelyn Petzold, Assistant Professor, Science Librarian, N219 Love Library,  
University of Nebraska-Lincoln

Teaching information literacy skills to biology undergraduates is an important part of their science education. An understanding of the nature and structure of information, as well as the ability to access, evaluate, and synthesize it, are essential qualities in any productive researcher. However, there are many challenges to effectively teaching these skills, particularly those involving when and how to teach them. New undergraduates need some information framework in order to navigate information even for basic exercises and projects, but many lack the disciplinary knowledge and laboratory or field

experience to fully understand the synthesis of original scientific information, something that requires higher-level information literacy skills. An additional challenge at all levels is to illustrate the connection between information literacy and the process of science. In order to teach lower-level undergraduates the information literacy skills they need without overwhelming them with unreasonable demands, the authors designed an innovative 3-part exercise called the Science Seeker for an introductory lecture course on evolution. The Science Seeker began with a single broad concept from the course text, and required the students to gradually identify and evaluate a variety of information resources that address that concept until they arrived at primary information containing experimental evidence of the concept's validity. The authors will share and discuss the design and rationale of the exercise, as well as the assessment and results.

## **7. Embedding Science Librarians into the Academic Community: An Accumulation of Best Practices**

Kyrille Goldbeck, Virginia Tech  
Allison Scripa, Virginia Tech  
Margaret Merrill, Virginia Tech

The Virginia Tech University Libraries' College Librarian program was initiated in 1994 (<http://www.lib.vt.edu/help/instruct/clprg.html>) to enhance the services librarians provide to their patrons. This unique program embeds academic librarians in the colleges and departments they serve. Most of these librarians have offices in their colleges or departments. The increased interactions that have resulted from "being in the college" have enabled librarians to forge stronger collegial relationships with their faculty. As a result, many have been asked to collaborate with faculty to create effective class assignments that increase student information literacy skills. For those faculty who cannot spare class time for IL instruction, online course guides have been developed that are linked into the class Blackboard or Scholar site. These guides are tailored to specific assignments, projects, or the class in general. Preliminary evidence suggests that these guides increase student awareness of library resources.

In addition, the close working relationships that have developed between subject librarians and teaching faculty have resulted in librarians being involved in actual course design. In some of these instances, librarians have also been made part of the instructional team. One example of embedded librarians at Virginia Tech is in the innovative and interdisciplinary Earth Sustainability Curriculum for Liberal Education course where information literacy is an integrated and assessed part of a curriculum that spans four consecutive semesters. This poster will present multiple examples of the services and projects Virginia Tech's embedded librarians are engaged in and have found effective.

## **8. Developing an Intranet Resource to Compile and Disseminate Animal Welfare Information for Library Liaisons**

Valerie Perry, Head, Agricultural Information Center, University of Kentucky  
Rick Brewer – Medical Center Library, University of Kentucky  
Frank Davis – Medical Center Library, University of Kentucky

The participating agricultural and medical library liaisons provide literature search support to University of Kentucky (UK) researchers applying for approval to work with animals through the University's Institutional Animal Care and Use Committee (IACUC). These literature searches must meet federal guidelines and regulations including the *Animal Welfare Act*. The project's goal is to create and maintain a comprehensive database containing cross-disciplinary bibliographic information needed for these literature searches. The library liaisons are responsible for conducting subject-specific literature searches, preparing customized reports which may be inserted into IACUC protocols or grant applications, and setting up SDIs if requested. The library liaisons share and store information via SharePoint and offer electronic delivery of search results which may be imported into individual researcher EndNote libraries. Confidentiality is maintained with coding and limited access to the specific research topics information. The University has site licenses to both SharePoint and EndNote.

## **9. Grow your own: Building an interdisciplinary bioscience library program**

Howard Silver, Co-Head & Biological Engineering Librarian, Engineering & Science Libraries, Massachusetts Institute of Technology  
Courtney Crummett, Bioinformatics Librarian and Biosciences Liaison, Massachusetts Institute of Technology.

Bioscience permeates research and education across all disciplines at MIT. Over a third of MIT's research funding comes from the Department of Health and Human Services. Since 2005 the MIT Engineering and Sciences Libraries (ESL) have adopted an interdisciplinary, team-based, project-oriented model to support the diverse biosciences community at MIT.

This poster will describe how ESL's Interdisciplinary Biosciences Group's (IBG) manages a broad portfolio of projects, programs and partnerships. The libraries' growing bioinformatics program is a key part of our portfolio and is the backbone of a strategy that includes collection development, faculty outreach, and applied research on issues related to scholarly communication.

A cornerstone of the IBG growth strategy is building relationships with the MIT bioscience community, and partnering with other institutions to leverage our capacity. The libraries partner with the bioinformatics community to co-fund shared resources and deliver instructional content. A growing partnership with Harvard University's Countway Library includes cooperation in developing and hosting in-person and online instructional content, shared projects for a National Library of Medicine 2<sup>nd</sup> year fellow, and outreach efforts to joint academic programs. The IBG has participated in library-wide efforts related to scholarly publishing and supporting e-science funding

opportunities. Expanding capacity through collaboration is a key element for continued growth of an important program with finite resources.

## **10. Showing the Way in SharePoint: What Every Librarian Should Know**

Emily J. Glenn, Information Specialist & Library Services Coordinator, Seattle Biomedical Research Institute  
Betsy Rolland, Project Manager, Asia Cohort Consortium Coordinating Center, Fred Hutchinson Cancer Research Center

Many organizations in the life sciences have deployed Microsoft Office SharePoint Services as a collaborative portal space for communication and data sharing. Collaborative portals can streamline the management of distributed research by giving participants a centralized workspace and building community and trust while spreading the burden of information management over the entire set of participants. However, getting beyond the basics and using out-of-the-box features of this powerful product can be overwhelming. Whether you are starting with a solution that was “handed” to your group, are improving on an existing installation or are looking for new efficiencies, this poster will show off tried-and-true tools and tips from real-life librarians who support SharePoint.

This poster will be accessible to all librarians who are involved in information management, but will be specifically targeted to those who are serving the research collaboration needs of scientists and have the opportunity to develop or lead best use practices for portals. The presenters will share a variety of SharePoint-based out-of-the-box information management tools (interface to databases, work flows and to develop inventory control systems) that are currently in use in scientific research projects. The presenters will also suggest key talking points for communicating with IT staff about a group’s needs and sharing ideas for rolling out new portal-based collaboration spaces. Poster visitors will take away motivation, tips, and a resource bibliography to help them confidently lead SharePoint implementation and use in their organization.

## **11. Are Video Tutorials Worth the effort?**

April Colosimo, Liaison Librarian, Life Sciences Library, McGill University

Introduction:

For many years McGill University librarians have been giving an information literacy session to U0 students taking General Chemistry (CHEM 120). The entire laboratory period (2.5 hours) is devoted to the theme of scientific inquiry. These students must choose and modify an experiment from the literature that they themselves will perform at a later date.

To supplement the session for the 2008 class of 912 students, four Camtasia Studio video tutorials were created:

Finding experiments (3:35)○  
Understanding citations (4:43)  
Locating an article from a citation (4:59)  
Locating a book from a citation (3:53)○

Questions remained as to whether or not students watched the videos and if they found them useful for the laboratory exercise.

#### Methods:

While students were performing their chosen laboratory experiment an evaluation form was distributed for the library by the supervisor. The evaluation form covered the usefulness of the session given by the librarian and the usefulness of each of the video tutorials. As part of the evaluation, students were asked, even if they did not watch the videos, would they watch other library video tutorials, and if no, why not?

#### Results:

533 evaluation forms were returned, giving a 58% response rate. 512 students responded to the question: even if you did not see the videos, would you watch other library video tutorials? 147 students (28.7%) answered 'no'. Of these, a total of 105 commented on why they would not watch other videos.