

Library Connect

Partnering with the Library Community

newsletter

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Welcome

Dear Colleagues,

Electronic and print forms of scientific material offer distinct advantages and present different challenges for libraries. The key advantages of online distribution are search, context (linking and navigation), variable presentation and analysis. Elsevier's technology strategy focuses on these opportunities, and how best to drive greater librarian and end-user value through the use of these technologies.

In this issue we hear from Pat Thibodeau, President of the Medical Library Association, who describes how medical libraries are responding to the availability of these new technologies. The Purdue University Libraries team provides insight on their work with internal and external partners to create an integrated eLearning environment. And Steve Schafer shares his experiences in distance education at Athabasca University. An interview with two technologists, Peter Brantley at CDL and Chris Shillum at Elsevier, looks at the Shibboleth initiative and advantages this could bring for remote access and management of rights while protecting privacy.

Throughout the issue, librarians from Brazil to Korea give their perspectives on how best to reach users and ensure the best use of available online resources. Navigation and ease of use are key aspects, of course, and our user-centered design team provides hints on how to improve website accessibility in the Ask UCD column.

New technologies surrounding content transformation and handling allow electronic content to be presented in variable chunk size, on variable devices, and directly into point of use. Students and professionals are ready to exploit some of this alternate presentation of content, in the context of courses, on PDAs and in more readable formats. The articles on eLearning, FIRST Consult, e-ditions, POCKET Consult and Live Ink are all examples of Elsevier's investment in this direction.

Tools for analyzing large bodies of scientific content are finally coming of age and out of the research laboratory, and this is perhaps the heaviest research investment of Elsevier. We conclude with a look at Elsevier's Innovation Lab, a project that provides us with an opportunity to share some of this research and work with librarians to assess the value of new technologies, some of which will find their way into future product development.

It is our hope that this issue illustrates some of the challenges of new technology, and ways libraries and Elsevier can work together to meet them.

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David Marques

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Information at the Point of Need: How New Technologies are Changing the Nature of Medical Libraries

Pat Thibodeau, Associate Dean for Library Services, Duke University, Medical Center Library, Durham, NC, USA and President, Medical Library Association



Pat Thibodeau

New technologies that enable the rapid delivery of knowledge-based resources are having an impact on how clinicians, researchers and health students work and learn, and are changing the nature of medical libraries. For years, health sciences libraries have struggled with ways to bridge the gaps of distance and time when identifying and delivering information to the point of need. However, the ultimate vision of “information when and where it is needed” was difficult to achieve across an entire healthcare facility or academic health center due to limited staff resources and the urgency of decision making in clinical settings. Now, the technologies are in place to bridge the gaps and satisfy the demand for immediate access to relevant and high quality resources.

“Medical librarians continue to play an essential role in accessing quality health information, for while access to materials is easier than ever, it is also more overwhelming.”

What does this mean for library patrons? With Web accessible databases and resources, patrons can quickly search for citations and identify online full-text journals, books and other sources. With a click of the mouse on the full-text links, knowledge is immediately available at the point of need. Through Internet protocol (IP) authentication, even the obstacles of multiple passwords have been overcome. Computer network infrastructures, Virtual Private Networks (VPNs), and proxy servers have allowed users at any institutional site to access resources that in the past were only housed in the library.

As several patrons have stated, “The best thing about the library today is that I do not have to go there.” Health professionals, researchers, and students can work more efficiently and effectively from their clinical, learning and research settings. They are less likely to forego that article because it is a ten minute walk or drive away. It is now on their desktop. In addition, online resources support multidisciplinary work; a faculty member can read an article in another field and the internist may enhance his knowledge in a medical subspecialty. It is easy to go beyond the limits of information found through personal subscriptions and society memberships. Even the traditional print collection is becoming available as libraries implement desktop delivery of scanned articles.

Mobile technologies have further changed how information is delivered and accessed, and have brought it even closer to the point of decision making. Handheld devices and wireless connections free faculty, clinicians and learners from the desktop computer. Information on how to treat a patient

is at the bedside; the researcher can check a fact while working on an experiment; and the student can tap into resources that expand and enhance a lecture.

The advantages for health sciences patrons are reflected in the transformations that medical libraries are undergoing. For many libraries, the current paper collection is being replaced with electronic collections. While the “library as place” still has an important function in providing a comfortable and quiet learning and research environment, the library must also provide workstations for accessing the virtual collections, and users are demanding wireless connections to allow them to work anywhere in the library. As mentioned earlier, scanners and desktop delivery services allow the library to bring the print collection to the users no matter where they are located. But as the emphasis continues to shift to electronics and from the legacy print copies, libraries are beginning to rethink how to use their spaces in support of their institutional missions.

Medical librarians continue to play an essential role in accessing quality health information, for while access to materials is easier than ever, it is also more overwhelming. Librarians must now provide users with training and orientations to the virtual library. The full complement of library expertise is still needed in identifying, evaluating and acquiring the best electronic resources, only now librarians must add negotiations and cost-benefit analysis to their arsenal of collection development skills. Given the myriad of electronic choices, the library’s Web page and online catalog have become crucial in helping library patrons locate and navigate the powerful new clinical and research tools. Medical librarians are assessing the new mobile technologies and influencing the selection of devices and the software tools used to support patient care. Even the easy-to-use database interfaces have not negated the need for expert searching in finding best practices, supporting evidence-based health care, and mining e-resources for knowledge about rare and unusual research and clinical questions.

“The next challenge for both medical librarians and the developers of technology and content is to find a way to bring the essential pieces of evidence to that immediate point of need.”

Have libraries realized their vision of information at the point of need? Yes and no. Information is more accessible from numerous geographic locations, but is it usable information? The question of “how it is needed” has been added to the vision. Both busy clinicians and researchers often need fast access to the facts or to filtered, analyzed, and distilled research results and cutting-edge knowledge. The next challenge for both medical librarians and the developers of technology and content is to find a way to bring the essential pieces of evidence to that immediate point of need. When the essential information is available on a mobile device, embedded in the electronic health record, or integrated with the software in the research lab, then the vision of “information when, where and how it is needed” will become a reality. ■

Partnering in eLearning: The Purdue Experience

Academic libraries worldwide are working to integrate institutional learning management systems with library resources to better serve users. Library and ITaP (Information Technology at Purdue) staff at Purdue University told Library Connect how they are approaching integration. Collaboration (internal and external) is a key element of their strategy.

LC: *What made you decide to focus on eLearning integration?*

Cheryl Kern-Simirenko, Associate Dean, Purdue University Libraries: We believe that eLearning integration will benefit our faculty and students by providing optimum access to, and delivery of, information. We're committed to employing the latest technology to achieve this aim so, as soon as we heard there was an enterprise version of WebCT™'s eLearning system and that ITaP had begun to implement it, we felt it was essential that the Purdue Libraries' resources be there within the learning management system. Faculty and student use of WebCT Vista will expand dramatically when the enterprise edition is in place, and we felt this was a strategic opportunity.

LC: *How will the integration work in practice?*

Kern-Simirenko: The ENCompass system we use for managing, searching and linking the Purdue Libraries' collections will interact with WebCT Vista to share resources through persistent URLs and links between the two interoperable software systems. In other words, students will be able to access the Purdue Libraries' resources from within the eLearning environment, and it will be easier for faculty to provide quality library resources within their online course setting. A single sign-on means one authorization will put the user into their course instance where they will find everything they need.

Priscilla Geahigan, Consumer & Family Sciences and Psychological Sciences Librarian: Direct access to databases through WebCT will save researchers time. A single point of access eliminates many steps — looking in the course management system, going to the library catalog, opening up a new browser to search electronic resources, etc. In one step, all these resources are available in a familiar and comfortable environment — the course management system.

LC: *Who's involved in the project, and how will it be implemented?*

Kern-Simirenko: The project team includes Purdue Libraries faculty and staff and colleagues from the Information Technology at Purdue group with expertise in eLearning tools. In Endeavor and WebCT we found external partners who share our vision and were willing to work with us.

Michael Witt, Lead Systems Administrator, IT Department, Purdue Libraries: We work with the librarians to look for on-campus collaboration projects that align with institutional goals and this project was certainly one of them.

Deborah Whitten, Director of E-learning Technologies, ITaP:

As early implementers of the WebCT Vista academic enterprise system, this project gave us a unique opportunity to work with the Purdue Libraries and vendors. Part of the success is that the vendors are willing to work together — this wouldn't be possible if WebCT and Endeavor Information Systems didn't collaborate well.



At Purdue, members of the campus community such as this researcher, pictured in the Humanities, Social Science and Education Library, will soon see the benefits of integrating an eLearning system and a digital library system for increased access to information. Photo courtesy of Purdue Libraries Office of Development.

Luke Knowley, Project Manager, E-learning Technologies, ITaP:

There is tremendous potential to enhance the learning environment on campus and this is an exciting project to be part of because it does just that. Systems like ENCompass can alleviate the drudgery of research, and the integration with WebCT Vista makes information available within the learning environment in any setting at any time — delivering anytime, anywhere learning.

LC: *What particular benefits will eLearning integration bring to Purdue?*

Kern-Simirenko: Benefits for the campus community are numerous. Integration will save time and money and enable the Purdue Libraries to deliver facilitated, rather than mediated service. If we can embed licensed electronic information within course instances, we believe we can also optimize fair use and be in compliance with the TEACH Act. In effect, the courseware will become our e-reserves, with faculty able to organize their own e-resources, and with the Purdue Libraries providing digital versions of print items as appropriate.

It also makes sound financial sense for the students. Libraries work hard to negotiate rights to electronic resources. We don't want students to pay for information through a coursepack vendor when that information has already been licensed for their use by the Purdue Libraries.

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Integration will help all our users to be proficient and productive. In academic libraries, we have always talked a lot about faculty productivity, but in today's world, student productivity is just as important.

eLearning integration is also the logical continuation of other cooperative projects we have worked on with ITaP.

“In academic libraries, we have always talked a lot about faculty productivity, but in today's world, student productivity is just as important.”

Witt: Yes, we've already worked together on a number of successful projects — campus wireless, central authentication and remote access — and this project follows the successful creation of our Digital Learning Collaboratory. Located in the undergraduate library, this multimedia lab provides cutting-edge resources for student research projects while facilitating integrated learning of information literacy and technology literacy. Computers are loaded with advanced technology software programs, and the latest equipment such as digital cameras and scanners is available. Designed to foster an active, collaborative learning environment, it encourages creative projects that help to prepare students with real-world experience.

LC: What factors can influence the success of collaborative projects like this one?

Witt: Starting with a good idea is key and having one or more people advocate for that is important. Encouraging the right people to work together equals success in our experience.

Brook Freeman, Assistant Life Sciences Librarian, Purdue Libraries: Phrasing project goals in a way that makes sense to non-library staff is also essential. Library jargon is not the same as the language of university administrators and we've found it's important to craft project proposals in terms of your strategic plan and make them explicitly relevant to university-wide goals. ■

In the twenty-first century, the Purdue University Libraries provide optimum access to and delivery of information to the Purdue University community, regardless of location, by utilizing sophisticated technologies, rather than serving as a major local repository. Expert staff instruct and assist the members of the Purdue community in becoming proficient and productive users of information — Purdue University Libraries Vision Statement, <http://www.lib.purdue.edu>

Athabasca: The Road to eLearning

Steve Schafer, Director Library Services, Athabasca University, Alberta, Canada

Athabasca University (www.athabascau.ca), Canada's Open University, specializes in the provision of distance education, offering more than 60 programs at the master's, bachelor, diploma and certificate levels, and more than 500 undergraduate courses. Since its inception in 1970, Athabasca University (AU) has grown, with course enrollments rising dramatically from just under 22,000 in 1995-96 to more than 51,000 in 2002-03 — an increase of 144%.



Steve Schafer

AU attracts a student body diverse in age (16 to 80), motivation, employment status, time to devote to studies and geographic location. Our students are mostly in Canada, but an increasing number are from further afield.

The average age of our undergraduates is 29, and declining. This trend is significant since distance education was once of greater interest to adults returning to complete educational objectives. Now we see more students from on-campus institutions seeking distance education opportunities to fill credit requirements at their home institution or as a solution to conflicting timetables, courses not offered and fast-track completion of studies.

Communicating across time zones presents some unique situations and the provision of services and resources 24/7 takes on even greater significance. Remote access to academic resources in electronic format is essential. Equally important are aspects of access and security, as well as the stability of resources, services and systems.

Providing Distance Education

In the early days we were primarily print-based, but the technological age and the ubiquitous World Wide Web have caused a major shift in course development and delivery. Advances in technology expedite student access and connectivity to curriculum, resources and support services from any place with a Web connection, and at any time. So, our course development, program delivery and service provision for students are changing to incorporate digital and online methods and to support student needs. Information literacy and the integration of teaching and learning resources into the curriculum are essential in a time when electronic resources are in abundance and readily available.

Library Services

The provision of library services in a distance education environment has always been a challenging task, but while the task remains large and the challenges great, we are fortunate to have a number of tools to put to use.

As part of the tuition fee, AU Library provides a number of core services to students enrolled in our courses: loan of materials from the library collection; searching of the library's online catalogue; access to assistance and instruction from

the Library Information Desk; interlibrary loan (ILL); and online access to full-text journal databases.

Looking over this list of core services, one might think, "these are simple enough – why such a great task?" In the distance learning field, not all that long ago, library services consisting of borrowing and some provision for instruction and assistance were considered great. Distance learning students were often dubbed "disadvantaged" because they missed out on on-campus experiences and services. Now, in the digital environment, the landscape has changed, becoming more level for all students.

Towards eLearning

At AU, much attention has been given to licensing online resources for unlimited and remote access. Direct linking using persistent URLs, "getting students into resources," is a feature contributing to online course development and facilitating the integration of library services and resources into the curriculum. Course developers, instructors and faculty now have tools to use to keep content current, flexible and relevant. Alas, information literacy remains an even greater challenge.

During 2003 we made four significant observations at the AU Library:

1. Use of online resources was increasing, but these resources were not used to the fullest extent.
2. We had experimented somewhat (and unsuccessfully) with e-reserves.
3. Copyright costs continued to skyrocket.
4. Our vision with respect to the integration of library resources and skill development opportunities (information literacy) into the university's curriculum was growing.

In view of these observations and upon consideration of a solution to address them, the concept of the Digital Reading Room emerged and has continued to evolve.

Developing the Digital Reading Room

The Digital Reading Room (DRR) (<http://library.athabascau.ca/drr>) is an exciting and innovative project developed by the Library in partnership with faculty and the university's Educational Media Development Department. The DRR is an interactive, online area designed to provide students with access to faculty-selected resources. Accommodating a range of formats, including online journal articles, e-books, audio or video clips, websites and learning objects, the DRR promotes discovery, access and reuse of learning objects, within an interoperable, networked repository environment. It serves as an online alternative for supplementary or reserve materials previously available only in print format. The DRR is interoperable with our three learning management systems: Lotus Notes, WebCT and Bazaar. For students the two primary advantages are accessibility and convenience. Simply clicking on a link retrieves course readings and learning resources. A link allows students to request items from the library.

The DRR is already recognized as a development that will contribute in a significant way to the teaching/learning environment here at AU. As of March 2004, there are more than 65 digital reading files, with nearly 4,500 links to selected online

learning resources. Twenty-five additional courses are either experimenting with, or working to incorporate the DRR.

Technical Information on the DRR

The DRR is built on two technological requirements:

1. SQL running on a Linux server – The SQL server provides industrial level speed and handles large user loads and database queries.
2. An in-house information retrieval system – Using a relational structure, data is stored in tables on the SQL database. The data is organized in a similar way to that on the library's OPAC (Online Public Access Catalogue), in that each item is linked to one or more instructors, courses and subject areas. Additional bibliographic and copyright clearance information, persistent URLs, Web links, or PDF files corresponding to the record are recorded in the tables. PDF files are stored on a dedicated Web server.

The DRR conforms to IEEE-LOM standards and uses CanCore implementation guidelines to ensure consistency and search with other like repositories in a networked environment. Developed using open-source applications, the DRR can be shared with the distance education and eLearning community at large as a means to bridge more traditional library operations with new ways of supporting the teaching and learning process.

Benefits of the DRR

- An easy method of data entry, modification and retrieval via the World Wide Web
- The ability to integrate with the existing library's proxy server and authentication system to access selected digital resources
- The ability to integrate with the library's Web-based OPAC
- Statistical tracking and reporting methods to help measure use of digital resources

Looking to the Future

An interesting observation has been made at Athabasca. Our statistics show that usage of online resources has risen dramatically over the past three years. During this time, circulation statistics have also risen steadily. One must therefore consider carefully to what extent library services should evolve to exclusively online and digital methods. As information providers and specialists in searching and researching, in matters pertaining to information literacy, and in matters pertaining to collection development (on-site collections and online databases), we must regard online resources as yet another format requiring consideration and evaluation in the large scope of information and resources available in the teaching and learning process.

My children, and perhaps yours, are a new generation of library users unfamiliar with the term "pre-Internet." It may well be then, that future trends of information seeking behavior evolve toward use of resources that are exclusively in digital or online format. It remains to be seen how long users will jockey between traditional collections, located and accessed through cumbersome and timely processes, and online resources, delivered or displayed at the desktop. Librarians will do well to observe the information-seeking behavior of students coming up through primary and high schools. These young people will become college and university distance education students tomorrow. ■

The Growing Authentication Problem: Does Shibboleth Technology Provide the Answer?

Library Connect interviews Peter Brantley, Director of Technology, California Digital Library and Chris Shillum, Publishing Technology Director, Elsevier, New York, USA

LC: What do you mean by the term “authentication”?

Shillum: Authentication is one-half of the authentication/authorization equation. Authentication validates who a user is or which institution they're from, and then authorization determines whether or not that user should have access to a specific online resource.

LC: How do we recognize valid users today in the authentication routine?

Shillum: Authentication technologies most commonly in use today include IP address checking or username and password validation.

“In the simplest terms, Shibboleth provides a mechanism for a campus’ local authentication system to be leveraged by users to obtain access to remote resources, regardless of the location of either the user or the resource.”

LC: If these technologies are already in use, and working well, why would librarians and vendors want to change from the current system?

Shillum: While existing technologies work, they do have some important limitations, especially as demand for anytime, anywhere access grows and issues of security arise. New technologies, such as Shibboleth, are emerging that could better serve customers’ needs.

LC: Can you outline some of the pros and cons of existing systems?

Shillum: Although IP supports site-wide access, anonymity and walk-ins, it doesn't effectively support remote access and is inherently insecure, being vulnerable to open proxy servers and IP spoofing. It also involves a considerable maintenance overhead for both librarians and vendors.

Username and password authentication does support remote access but it can involve complex administration. With no vendor standard currently available it can also be a nightmare for users who are often required to have a different username for every service. It's also a “leaky” system in terms of security. Usernames can be shared with non-authorized users and there's no easy way to de-activate users leaving the authorized community.

LC: What are the specific limitations for remote access?

Shillum: Supporting off-site access to licensed resources is one of the biggest headaches for librarians and publishers alike. Various types of proxy servers can be used to make the remote user appear, to a vendor's system, to be within the campus' IP address range, but no solution is perfect.

LC: We hear a lot about Shibboleth as a new authentication solution. Can you explain what it is?

Brantley: Shibboleth (shibboleth.internet2.edu) is an open, standards-based solution to the need for organizations to exchange information about their users in a secure, and privacy-preserving manner. Shibboleth is an initiative of the Internet2 consortium — a group of over 200 universities working in partnership with industry and government to develop and deploy advanced network applications and technologies. The majority of the software design work has

been completed, and a production-ready version of Shibboleth is available for download at the above URL.

LC: And what it does?

Brantley: In the simplest terms, Shibboleth provides a mechanism for a campus' local authentication system to be leveraged by users to obtain access to remote resources, regardless of the location of either the user or the resource. More specifically, Shibboleth permits users to authenticate themselves to a campus single sign-on system, and through a user-controlled release of information attributes about themselves, access licensed or restricted resources anywhere on the network.

In more technical terms, Shibboleth is an open-source, standards-based architecture that facilitates the transfer of user attributes from the origin site (e.g., a university) to the target (e.g., a vendor of licensed content) in a secure and trusted manner. Examples of attributes might be as simple as “Member of University X” or more complicated formulations such as “Akiko Behrens in the Biology Faculty at the Springfield campus of University X.” Sets of origin and target sites form “federations” which establish common policies and attribute semantics; the first of these for the academic community is called InCommon.

LC: Is Shibboleth the only system of its kind available?

Brantley: No, there are other federated authentication systems under development, such as Liberty Alliance and WS-Federation. They are more focused on the commercial public Internet than on the particular needs of the academic community. Shibboleth is speaking with these other groups with the aim of achieving the maximum possible interoperability between systems.

LC: How did “Shibboleth” get its name?

Brantley: The story associated with “shibboleth” (the Hebrew word for stream) is contained in the Old Testament's Book of Judges. After a battle in which the Gileadites defeated the Ephraimites, Gileadites identified fleeing Ephraimites by requesting they speak the word “shibboleth.” Unable to pronounce the “sh” sound, the Ephraimites were revealed. Shibboleth has thus entered the language as a word meaning, among other things, a use of language or custom distinguishing one group from another.

LC: What are the benefits of Shibboleth?

Brantley: As a system, Shibboleth is easy for campuses to manage; eliminates the need for proxies or VPNs; provides a solution for off-campus users; and delivers a consistent user experience. Shibboleth also makes it easy to license and control access for discrete smaller groups – individual departments or specific courses – and it can help librarians deal with special access situations, e.g. “charge-per-drink” or profiling-based services. The system enables these more focused or specific services to be provided without unnecessary loss of privacy.

LC: What are the main issues that libraries considering implementing Shibboleth need to consider?

Brantley: The most important infrastructure elements are having some form of campus single sign-on (SSO) solution, such as a campus portal, and a directory of members that can be utilized by Shibboleth's Attribute Authority. Once these two aspects are implemented, then the institution needs to join and adhere to the terms of a Shibboleth

Federation, and to install and configure the software. Of course, both user and support staff education are required for any change in core academic technology.

LC: *Anything else?*

Brantley: Implementing licenses with attribute control among consortial memberships, multi-campus systems, etc. can be complicated. Librarians may also find themselves managing a mixed environment where some vendors are ready to accommodate Shibboleth while others must continue to be addressed through existing gateways, such as Web proxies and VPNs. One important consideration is that users will need to log in even when they are on campus and that might involve a shift in user behavior, depending on in part on how tightly the SSO solution is integrated into institutional portals. Librarians also need to agree on attribute values with Shibboleth-enabled vendors and on how to deal with special situations such as library walk-ins.

LC: *What types of authentication technologies does ScienceDirect support?*

Shillum: When ScienceDirect was launched in 1996 only username/password authentication was available but we soon added IP-authentication in response to customer demand! In 1998, "Activation IDs" were introduced as a mechanism to support distribution of portable usernames to remote users. During 2002, we also added support for a centralized shared authentication system known as Athens (www.athensams.net) used by around 120 academic and government institutes in the UK. Elsevier is committed to making access easier and we are strong supporters of new authentication schemes such as Athens and Shibboleth.

LC: *How do you decide which technologies?*

Shillum: As a publishing technology director it's my job to keep up-to-date with emerging and innovative technologies that offer benefits to our customers and their users. We believe systems like Shibboleth fulfill customer needs by providing a means of offering the broadest possible access to information within an authorized community. When a "winning technology" or global scheme is adopted they'll also help reduce administrative burdens for both customers and vendors.

It's important to add here that we remain committed to offering anonymous, site-wide access to our content, whatever the technology used, and in addition, we will continue to offer the option of advanced personalization features and services in exchange for basic registration by individual users.

LC: *Do you involve customers?*

Shillum: Yes, it's hugely important to involve librarians and end users in the process of implementing new technologies on platforms such as ScienceDirect. Elsevier is a member of Shibboleth's InQueue Federation and we're currently working with a group of customers on a pilot of ScienceDirect's implementation of Shibboleth, with wider availability expected towards the end of the year. ■

Elsevier's Approach to eLearning

John Meyer, Director of eLearning Technology, Elsevier, New York, USA

In its very broadest sense, eLearning includes all forms of Web-based education and training. To me that means online educational activities with learning objectives, learner activities, and some form of assessment. These activities, all delivered online, take several forms at Elsevier: courseware to accompany textbooks, review and testing products to prepare learners to pass various qualifying exams and boards, continuing education for professionals, and training and development.

With over 80% of US colleges and universities having licensed a commercial course management system (CMS) like WebCT™ and Blackboard Inc.® and upwards of 40% of college classes (Campus Computing Project 2003) incorporating online components even in face-to-face courses, there is, and should be, great interest on the part of both academic libraries and publishers in supporting Web-based education.

Making virtual libraries accessible anytime, anywhere, by their geographically widely dispersed student bodies is key to the mission of higher education institutions. Many are becoming increasingly successful in attracting students to their web-based distance learning programs. Business models are also changing, with some institutions charging students a higher tuition for education at a distance.

Librarians are perfectly placed to acquire, hold and manage learning objects from a variety of sources, including commercial publishers, and provide easy-to-use tools allowing embedded links to that content from within a CMS. They're also in an excellent position to work with faculty and course development teams to construct the best possible collections of learning objects and other content for web-based learning, and to train faculty and students in how to access the library's holdings, and incorporate them into the flow of lessons, modules and tutorials.

At Elsevier we offer a number of eLearning products and initiatives with more on the way. One of our most successful to date is Evolve (<http://evolve.elsevier.com>) — an interactive courseware platform. Powered by Blackboard, Evolve combines course management tools and online resources to expand instruction. As with other CMSs, course documents and other resources licensed by the library can be accessed through direct links from the course builder interface with the help of products such as Endeavor's ENCompass Course Content Integrator.

Evolve currently offers more than twenty full-fledged online courses that accompany our health professions and nursing textbooks. Titles like *Medical Terminology Online* already have thousands of student users who pay for PIN codes in order to access the highest-quality text, graphics, animations, simulations, and interactive exercises developed from scratch for the courses. With 160,000 registered users and more signing up every week, the program has been an unqualified success and there are another twenty new courses in the works. Beyond Evolve, we're now evaluating initiatives in Web-based review and testing for nursing students and continuing education for practicing nurses. Product lines like these are easily extended to the needs of emergency medical technicians and physicians, not to mention other health professionals and eventually user communities such as engineers and clinical psychologists.

Web-based training is another big area where we have some small but significant efforts underway, both internally and externally. One of these is Elsevier's CyberTrain — our live, instructor-led product training sessions for librarians (see pages 12 and 16). The opportunities in this area could be huge — both in terms of improved communication, customer service and product enhancement. At MDL (www.mdl.com), an Elsevier company specializing in discovery informatics for the life sciences, there are plans for a series of online tutorials to teach chemists how to use their software. Whether for-sale or for-free, tutorials and professional development materials are vital to all of our lifelong learning needs. ■

Center of Attention

Opportunities for eLearning in a New Medical Library

Barbara Shearer, Founding Librarian and Director of the Medical Library, Florida State University College of Medicine, Tallahassee, FL, USA

It's rare to see a brand new medical school established, but Florida State University's College of Medicine enrolled its first class in 2001 and it has been a wonderful experience so far. We're fortunate to be starting fresh in a virtual environment, and so we're able to experiment with different approaches to supporting the curriculum.

One reason to go electronic for the resources students and faculty depend on is that after the first two years of basic science courses taken at the college's campus in Tallahassee, all our students move on for their third and fourth years of clinical rotations at physicians' clinics, HMOs and chronic care facilities in Tallahassee, Pensacola, Orlando and other planned locations. With the distributed set of students doing clerkships around the state it's useless to have clinical textbooks sitting on the shelf in one central library — hence the dependence on Web-based resources.

For me, eLearning means providing students with a variety of ways to learn at a distance, and library e-resources are an integral part of this learning process. I'm really big on tying specific library curriculum resources into learning objectives. The collection is here to support the curriculum, period.



From left to right: Carol Warren, Nadine Dexter, Barbara Shearer, Suzanne Nagy and Emiko Weeks – the team at the Medical Library, Florida State University College of Medicine, celebrate the groundbreaking for their new College of Medicine building.

I've come to believe that a true virtual library must be available where users need it, when they need it, and in as seamless a manner as possible.

Working closely with the Medical Informatics department as part of a team under the Office of Medical Education has shaken me out of my assumptions about what a virtual library should be. For instance, the typical concurrent user model may mean students lose the "moment for learning" if the limit has been reached. I've been working with vendors including Scott FitzSimons from Elsevier's Institutional Electronic Sales to extend availability of MD Consult and its medical textbooks and journals beyond the traditional concurrent license model, to the wider community at Florida State University's College of Medicine. ■

Librarians Speak Up

What's the biggest issue you encounter in reaching today's users?



*Regina Aparecida Blanco
Vicentini, Head Reference
Librarian, Central Library, State
University of Campinas, Brazil*

On the one hand, increasingly sophisticated tools help us locate information. On the other, our library users are anxious to know they are accessing the most relevant sources for their research. The hunt for information relevant to a specific research question now takes place within a larger context — an information universe transcending the library walls, and taking on unlimited dimensions. We face this challenge with our users on a daily basis and we orient and direct them along this tumultuous and intensely busy super highway — through the Internet, information networks, databases, e-journals and data transmission. In our Reference Service Division, we are committed to training the entire university community in the use of all information resources available at our nineteen campus libraries. Since 2001, we have offered daily training sessions. This two-way relationship between librarians and library users is fundamentally important to the success or failure of the library. ■



*José Fernandes, UMIC (Knowledge
and Information Society Mission
Unit) and FCCN (Foundation for
National Scientific Computing)
Executive Board Adviser, Portugal*

Today we live in a fast moving, ever-changing world. The advent of mobile/wireless technologies has made it possible for anyone to access information anytime, anywhere. Providing our users anytime, anywhere access is the aim of the e-U (e-University) project (www.e-u.pt) here in Portugal. This initiative involves services, content, applications and mobile/wireless communication networks, inside and outside the university, for students and professors. It stimulates and facilitates access, production and knowledge sharing. Portugal is the first country to create an integrated Wi-Fi network for all its universities and institutes and is fast becoming a world-renowned case study. Recently, Portugal signed a contract with several international publishers to make more than 3,500 journals available online to our national academic and scientific community. We believe that this initiative is a key step forward towards the knowledge economy. ■

E-journals Change User Behavior in Japan

**Shinichi Abe, Reference Librarian, Medical Information Center,
Jikei University, Tokyo, Japan**

The Library Services Division of the Medical Information Center, here at the Jikei University School of Medicine in central Tokyo, is an average Japanese academic medical library with a collection of about 200,000 medical books and bound journals. It employs twelve medical librarians and a small support staff.

Our library has certainly been influenced by new information technologies that have significantly changed the behavior of our library users, particularly e-journals. Now that physicians and researchers can read journals online at their offices and laboratories, they are no longer frequent visitors to the library. The Jikei University is adjacent to one hospital in the center of Tokyo and affiliated to three branch hospitals further afield. Each branch has a small, unstaffed library with a limited collection, so here in the Medical Information Center Library we have traditionally received many requests for copies of journal articles from physicians at our branch hospitals — we made photocopies of about 7,000 articles in 2003.

In recent years we have seen the information behavior and needs of physicians and researchers change as the number of e-journals on our campus network increases. We now have electronic access to over 1,200 titles, and managing the accessibility of these e-journals has become a more important library service than the distribution of photocopies.

We have also been greatly influenced by e-mail. The Jikei University was founded more than 120 years ago and has many graduates all over Japan with indirect access to various library

services, including information retrieval and document delivery. E-mail requests and responses for these services have greatly increased and more than 100 graduates have registered for our SDI service — a periodical database search and email alert.

To keep up with the latest advances, Japanese medical librarians read journals such as the *Journal of the Medical Library Association* and *Igaku-Toshokan*; exchange information through listservs like medlib-l and medlib-j; and, whenever possible, attend conferences at home and overseas.

These days, with fewer opportunities for face-to-face contact with our users, we are less able to determine their needs. Librarians therefore, must make greater efforts to understand these information needs and provide more useful information. For the past few years, Japanese medical librarians have studied the information and information service needs of our users. Based on the data we have collected, we will strive to provide more effective information services. ■



Shinichi Abe, Reference Librarian (pictured standing, left) at an information literacy class. Classes such as these, given by librarians, are part of the curriculum at the Jikei University.



Hella Bluhm-Stieber, MLIS, AHIP, Medical Librarian, Milton J. Chatton Medical Library, Santa Clara Valley Health & Hospital System, San Jose, CA, USA

The biggest issue in reaching today's users is the ever-growing cost of journal subscriptions and the shrinking library budgets. That makes it increasingly difficult to provide the best service possible to our clientele.

Today many users think that everything is available online, unaware that most journals are not free online nor that libraries need to pay for them, either as separate subscriptions or as bundled database subscriptions. Even regular library users have no idea how much these subscriptions cost. Also many people do not realize that not everything found on the Internet is true. ■



Wei Zhi Su, Library Director, Shandong University Library, China

"Users First" is the principle of our service at Shandong University Library. The library, established in 1901, has a collection of 4.3 million volumes with four buildings located across campus. In terms of access, the electronic revolution has enabled us to better serve our users. We now provide the full-text of over 6,100 Chinese academic periodicals online through CNKI (China National Knowledge Infrastructure); 380,000 e-books through the Super Star Chinese Digital Library; and many important databases from outside China. To facilitate use of these resources we have increased our seating capacity to 2,000, added electronic reading rooms, and installed information retrieval stations. ■



Mi-suk Park, Periodicals Librarian, Medical Library, College of Medicine, Gyeongsang National University, Korea

Our library services are currently in a state of turbulence due to rapid technological change. It's an inevitable phenomenon. Our users demand the best possible services and support, but at the same time they expect that to be coupled with carefully balanced progress. Our users even require the library to provide urgent information in the operating room. I think we are now at an important turning point. It's time to branch out into the world of real, dedicated customer service — through the provision of a customizable interface offering a wide range of communications media such as proactive email notification, portable, wireless, remote access, etc. ■

Holy PDAs! It's Point-of-Care to the Rescue

Spend time at a hospital these days, and you'll notice physicians sporting utility belts rivaling those in Batman comics. With over 80% of US medical students and 50% of US practitioners regularly using handheld devices, demand for high-quality, up-to-the-minute healthcare information delivered via PDAs and other mobile devices is growing rapidly.

Elsevier's approach to the challenge of providing clinicians with the latest, most reliable information to work into their patient care plan rests on several integrated initiatives. Elsevier's Chief Technology Officer David Marques explained, "Content becomes much more valuable when it's optimized for a specific use and framed within the context of a user's goal. By enabling our customers to extract the pieces of content that matter to them at a particular moment and providing them with the flexibility to combine them, we offer maximum value."

In the last ten years, Evidence-Based Medicine (EBM¹) has emerged as one of the most significant trends in health care and education. For healthcare students and professionals alike, the problem has always been how to take the neat theory of EBM and apply it to the messy, hectic world of clinical practice.

FIRST Consult (www.firstconsult.com) is Elsevier's Web- and PDA-based system that enables users to access and digest, within a couple of mouse clicks, exact snippets of clinical information. Highly specific content is accompanied by summaries and citations to supporting literature, a feature that really does take EBM out of the textbook and into real life².

Holly Harden, Liaison Librarian, Johns Hopkins School of Medicine, commented, "In a point-of-care environment, it's essential for clinicians to have access to the latest evidence-based information. FIRST Consult provides them with a very comprehensive tool for clinical decision making, offering immediate diagnosis and treatment protocols from qualitative and critically appraised sources within moments. It mirrors our commitment - to offer the most advanced tools available, providing a higher level of training for students and ultimately greater quality care for patients."

Achieving this goal does not simply involve repurposing existing content. An editorial board of leaders in primary care and specialty medicine works with medical writers and reviewers to update FIRST Consult every week, ensuring accuracy and currency. To facilitate usability, a highly templated structure helps physicians learn where to find what they need fast.

Demand for wireless delivery is strong with the number of "wired" hospitals increasing all the time. Elsevier reports that FIRST Consult wireless delivery will be offered from May 2004, and that it is compliant with the latest Wi-Fi technologies.

Underlying development of Elsevier's point-of-care content is POCKET Consult, a highly advanced versatile platform for handheld content delivery. POCKET Consult (launching this

May) is a fully integrated one-stop site allowing healthcare professionals to access and manage Elsevier's handheld content in the health sciences. Via this new service, users will receive free access to news and drug alerts from MD Consult; a suite of medical calculators; and the latest tables of content and abstracts from Elsevier journals. It will also be possible to order and download Elsevier handheld titles via PDA using POCKET Consult's online store.

"With the rapid growth in PDA usage amongst medical practitioners, residents and students...It's a natural evolution that users are demanding rapid access to key clinical and educational content at point of need. POCKET Consult gives our customers one-stop delivery of a wealth of handheld information in an easy-to-use and flexible format."

—Fiona Foley, Executive Vice President, Elsevier Global Medicine

For subscribers to services such as MD Consult and FIRST Consult, POCKET Consult will include Mosby's Drug Consult, delivering 950 updated drug monographs and an all-new drug interaction tool, Mosby's IX. Cross-linking capabilities will allow users to look up drug information instantly by selecting drug names in other Elsevier handheld titles.

Beginning with the release of *Cecil Textbook of Medicine* in December 2003, POCKET Consult's groundbreaking technology is also being integrated into Elsevier E-ditions™, allowing users to select and download content to handheld devices to create customized references. Each time users hotsync their PDAs, content, drug information and news is automatically updated. "With the rapid growth in PDA usage amongst medical practitioners, residents and students," observed Fiona Foley, Executive Vice President, Elsevier Global Medicine. "It's a natural evolution that users are demanding rapid access to key clinical and educational content at point of need. POCKET Consult gives our customers one-stop delivery of a wealth of handheld information in an easy-to-use and flexible format."

PDAs are part of the day-to-day medical environment and Elsevier recently announced plans to upgrade most of their current handheld products, such as FIRST Consult Handheld and MDC Mobile to include POCKET Consult technology. Physicians are superheroes to their patients. Like Batman and Robin's, let's hope doctor's utility belts are fully loaded with all the ammunition needed. ■

Richard Furn, Executive Publisher, FIRST Consult, Elsevier, London, UK and Andrew Clubb, Director of Electronic Publishing, Global Medicine, Elsevier, St Louis, USA

1. Sackett, D.L., Rosenberg, W.M.C., Muir Gray, J.A., et al. (1996). Evidence based medicine: What it is and what it isn't [Editorial]. *British Medical Journal*, 312, 71-72.

2. White, B. (2004, February). Making evidence-based medicine doable in everyday practice. *Family Practice Management*, 11(2), 51-58.

Evaluating Innovation in the Elsevier Lab

Elsevier's Chief Technology Officer and Head of our Advanced Technology Group, David Marques, first outlined the concept of an innovation lab at our 2003 Strategic Partners Forum in Philadelphia. The idea was quickly embraced by participants and implemented as part of our ongoing work with librarians to meet the future information needs of the scientific community. The goal of the Elsevier Innovation Lab is to provide an environment where, together with our customers, we can innovate, test and refine new ideas focused on increasing end user value.

In providing controlled access to this environment, we aim to give customers a larger voice in influencing the products and services we develop in the future.

There are currently ten different prototypes in the lab and we plan to add between six and twelve new prototypes annually, reflecting technology, interface or product ideas. To provide a context for use, prototypes are loosely coupled to at least one Elsevier product. Members of Elsevier's UCD (User Centered Design) group design interfaces that don't

obscure or confuse value assessment. In addition to internal experts we have also involved some key technology companies, that are providing specialized software for use in the prototypes.

During our first full year of operation the positive response from customers wishing to participate has been overwhelming. Six major institutions from around the world have already signed nondisclosure agreements and we are in discussions with an additional six. Partners have unrestricted access to the site and each prototype has a feedback link enabling librarians, technologists and end users to evaluate prototypes and suggest improvements. Throughout the year online conferences will be conducted, in which participants will discuss existing prototypes and share ideas for new ones.

Every prototype in the Innovation Lab has a clear end-of-life time frame, at which point it either moves into the product development process or is removed. We work closely with Elsevier's Product Development Committee to ensure that those items found to be of significant value can rapidly and easily move into production and deployment. Present prototypes cover a wide range of topics, including new ways of presenting journal content to readers such as Live Ink. The screenshot above illustrates how work on this new technology appears within the development context of the Innovation Lab. ■

Geoff Adams, Director, IT Solutions, Elsevier, New York, USA

Can We Re-engineer Reading?

Use of digital content as a primary communication medium has led Elsevier to explore alternative ways to present text for easier reading. On the one hand we are no longer restricted to the rigid confines of standard paper sizes; yet, on the other, we find ourselves confronted with new restrictions such as the limited dimensions of a PDA.

Live Ink technology is a quantum leap forward in text engineering based on the principle that text can be reformatted into

easily digestible patterns that significantly reduce work the brain would normally do to assemble and understand textual information. Any apparent resemblance between Live Ink and poetry does much to indicate the soundness of this approach.

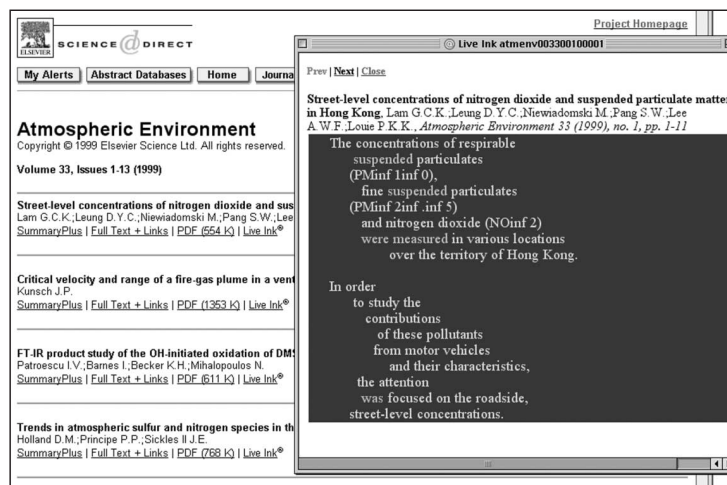
"University-based cognitive scientists first tested Live Ink in college readers, using 'within-subjects' study designs that compared reading digital text in block format to Live Ink format" explains Randall Walker MD, Managing Director of Live Ink. "Live Ink immediately increased comprehension by 40% and reduced the frequency of

eyestrain by 75%. In year-long, randomized, controlled trials with high-school textbooks, scores on nationally standardized tests for content-area learning and for reading proficiency both increased by more than a full-standard deviation in Live Ink groups compared to control groups, including those for whom English is a second language."

Test results like these, demonstrating the capacity of Live Ink to enhance reading speed, understanding and retention for a wide variety of users and content types, together with its suitability for the Web encouraged us to work with Live Ink to deploy their technology within a number of development scenarios, including:

- eLearning: the proven capacity of Live Ink is now being tried in a range of new e-Books.
- Journal articles: we have been investigating Live Ink for rapid scanning, or "triaging," of large volumes of papers, with a level of serendipitous discovery akin to quickly flicking through the pages of a journal.
- New devices such as PDAs, where text needs to be optimized for reading on a small screen.

One future application could be to create Live Ink on-the-fly at the point of demand, allowing users to select the portions of text to be rendered, as well as customization to specific configurations and devices, such as PDAs. ■



Elsevier Innovation Lab prototype demonstrating how text rendered by Live Ink might look for a typical Elsevier journal.

David Greaves, Publishing Technology Manager, Advanced Technology Group, Elsevier, Amsterdam, The Netherlands
 April 2004 LibraryConnect newsletter

Success Story UK: Sheffield Hallam University Tries Out Elsevier's Online Training

Aileen D. Wade, Information Specialist, Learning Centre, Sheffield Hallam University, Sheffield, UK



Aileen D. Wade

Elsevier, supplier of our ScienceDirect database service, offers free, live ("synchronous") training sessions on its e-products over the Internet, utilizing a teaching tool called WebEx as the delivery method.

It's very easy to attend; you only need simultaneous access to a Web browser and a phone, with a speakerphone facility. You can choose the place and a time to suit yourself.

Last year, I attended my first online training from Elsevier and organized a repeat session for some colleagues this year. Several members of the science and engineering subject team of the Learning Centre at Sheffield Hallam University, Pam Bing, Stephen Davies, Em Finney, Bea Turpin and I participated in the session. My colleagues were based in our team office while I attended off campus, from what I have affectionately dubbed "My Home Office."

"Overall I was left with a more friendly, personal impression of ScienceDirect and hadn't realized how interested they were in librarians and in getting feedback from us."

— Stephen Davies, Information Advisor, Learning Centre, Sheffield Hallam University

Wendy Gaurié, an Elsevier Account Development Manager familiar to our team from previous in-person ScienceDirect seminars delivered in Manchester, led our team's online training on ScienceDirect features and functionality. Wendy also updated us on changes implemented last November.

I'm very much looking forward to the "Tips and tricks" session I've registered for to help me better market ScienceDirect to our user community. On Elsevier's WebEx site at <https://elsevier.webex.com>, you can sign up for a variety of regularly scheduled training sessions. I'm sure you'll enjoy training conducted in this way and wish to "go back" for more, as I have! ■

Success Story USA: USDA Motivates Potential Users With a Fun Publicity Campaign

The USDA's DigiTop Digital Desktop Library service was launched early in 2003. It connects over 112,000 employees worldwide to online information on subjects from agriculture to zoology. "Our user community is large and scattered, and brings widely diversified information needs," explains Len Carey, Public Affairs Officer, USDA National Agricultural Library. "The one connection they have is that they are all hooked up to the Internet. DigiTop uses that connection to link them to the information they need, 24/7."

A major feature of the DigiTop service is the USDA contract to ScienceDirect. Elsevier Account Development Manager Armond DiRado decided to help the USDA

raise awareness and promote usage of the new service. Together they launched a publicity campaign and worked with design agency VCG2 to develop visuals, fine-tune ideas and reach just the right level of humor for their audience. "Working with this agency was really a good experience," Len reports. "They were a little cheekier than we might have been — we were used to being a little more staid in the library. The end result is a tongue-in-cheek campaign that really speaks to our users and, most importantly, motivates them to go and click on DigiTop to see what it can do for them."

Posters and images such as the one shown above have been featured at conferences as well as in USDA downtown and local offices from New Orleans, Louisiana to Madison, Wisconsin. Feedback so far has been very positive. USDA users appreciate the humor in the posters. (Reports are that the Free-Range Searching poster is the favorite.) "The posters have also been a good way of acknowledging the work key contacts have done to bring DigiTop into existence," says Len. "They display the poster in their offices and act as ambassadors for the service."

Future plans include using digital versions of the poster as a postcard to expand the reach of the campaign at minimal cost, as well as making available online several videos and presentations from training sessions with vendors whose content is available through DigiTop.

Initial results are very positive. "We have definitely seen an increase in the usage of the DigiTop service overall and I think we are only seeing the beginning. The advertising campaign, as well as other activities in conjunction with our vendors, such as training, have clearly contributed to this," says Len. "Our aim was to implement a fun campaign with a simple, clear message that would help make DigiTop a success, and we are well on the way now." ■



Poster designed by VCG2



Chris Jasek of Elsevier's User-Centered Design Group answers your usability questions.

How can I improve the accessibility of my website?

Accessibility in this context refers to the universal ability of the user population to navigate and access features and content of a website. Users may have a visual impairment or a motor difficulty that requires them to access the Web via special software such as screen magnifiers, screen readers and Braille displays. Sometimes users may need to access a site using a text-only browser or without using a mouse.

Here's a list of some of the most common changes you can make to a website to improve its accessibility.

- **Don't** specify fonts in absolute point or pixel sizes (e.g., 10pt, or 13px). Instead use relative size measures (e.g., x-small, small, medium, large, x-large).
- **Don't** use the site logo or home button as an active link on the home page itself. This helps users confirm that they are actually on the home page.
- **Do** use an ALT tag for every image on your web pages. An ALT tag is something you can specify in HTML as part of an image. It's meant to specify an ALternate text that can be displayed when the image itself might not be viewable (i.e., browser has images turned off or user using a screen reader). ALT text can be seen by a user when they mouseover an image. The ALT text used should accurately describe the image. If the image is purely cosmetic use "ALT="" (an empty string).
- **Do** provide skip navigation for repetitive navigation bars. Usually this applies to the main navigation bar, placed on the top of all Web pages. Skip navigation provides an invisible link before the navigation bar that jumps down the page to where the real content begins. This link is invisible to the eye, but not to screen reader software, and so screen reader users can choose to skip over the reading of repetitive navigation links and get right to the content they need.

For more information and additional tips to improve accessibility visit:

- www.diveintoaccessibility.org
- www.webaim.org/standards/508/checklist

5 Quick Questions

Agnès Ponsati, Libraries Coordination Unit Director, Consejo Superior de Investigaciones Científicas (CSIC), Madrid, Spain



Agnès Ponsati

1. What steps is your library taking to meet the needs of today's diverse users?

At CSIC we manage a large library network belonging to the Spanish National Research Council. Ninety specialized libraries are located in research centers across the country. Research centers focus on specific scientific disciplines and deliver information services to a community of around 5,000 scientists.

Meeting the needs of our diverse user community is a challenge. The number of information resources available is huge, as is the demand of our users, but our budget is not. However, we try to offer as much as we can and follow some general criteria in the selection of collections, such as: existing demand within the institution; general interest in the product for as many users as possible; building basic collections first and then focusing on the more specific; and of course, prices and conditions.

We started our digital collection in 2001, and began by purchasing the largest commercial publishers' platforms. In 2003 we focused our energies on Scientific Institutions (IOP, AIP, APS, etc).

2. Is there any user population that you are specifically focusing on in terms of information access?

No, we try to be as democratic as possible and offer our different populations at least a basic collection for their needs. One area with less content in our digital collections is the humanities and social sciences. This is due to market availability and user demand — few digital collections are available in these areas, almost none in Spanish. Perhaps this is due to a lack of digital culture in the field.

3. Are you taking any particular steps to make the library appealing as physical place?

We manage a library network in which each library has its own director with whom this responsibility lies. Physical

space is still very important to us because the library continues to be a meeting place, a point where the user can be guided by their librarian to the data he or she is searching for. In the end libraries are "knowledge containers" plus services to manage that knowledge. Our libraries still hold important scientific print collections but we do have to keep in mind that in the digital scenario the notion of a library as a physical place is changing. Space is a strange concept for libraries today.

Making libraries more appealing as physical spaces is not part of our current strategic plan, but it's important to make the point here that we believe that if we offer good services then our libraries will gain appeal as physical spaces.

4. Do you have any special projects underway to build a virtual community for your remote users?

We have recently undertaken a small experiment in distance eLearning with one of our vendors and we plan to follow this by starting up a professional librarians training program, based on an eLearning system. This could then be offered as one service in a future virtual community around our library portal, where users could connect to gain access to a diverse world of services. The idea is to eventually implement more services and offer added value to our users.

5. What plans do you have in place to prepare for the next generation?

Our plans in this direction are to build a new library portal for the network. Our digital resources will expand in the next two to three years, and we need to consolidate and disseminate information more efficiently in order to maximize usage. To do that we have to unify the way users access our collections. Currently there are too many gateways to resources and that doesn't facilitate use of all the information available. The OPAC, database servers, e-journal platforms, etc. all use different interfaces in different systems with different connection demands. Navigation between resources needs to be improved to increase usability — we know some of our patrons get lost performing searches.

In choosing the right product for our needs in this area we look to the example of other important libraries that have faced this issue before us and hope to find a solution in the coming months. ■

Exchanging Opinions

Boston, Massachusetts, USA, December 2003

Thirty-eight academic librarians attended our Library Connect Seminar, presented in conjunction with Boston Library Consortium and NELINET. The event opened with a welcome from Barbara Preece, Executive Director, Boston Library Consortium, and Susan Abell, Director, Marketing and Sales, NELINET.

The program provided opportunities to discuss a range of topics relevant to today's academic libraries. The most dynamic aspect was the exchange of views during the librarians' panel session. The panel, moderated by Barbara Preece, offered views from Miriam Allman, Science Bibliographer, Tufts University; Linda Hawkes, Reference and Electronic Services Librarian, Quinnipiac University and Eleanor Uhlinger, Assistant Library Director, MBLWHOI Library, (Marine Biological Laboratory/ Woods Hole Oceanographic Institution) Woods Hole, MA.

One insightful analogy was made by Eleanor Uhlinger, who cautioned that many research library collections are beginning to resemble the Mall of America. "Pretty soon," she said, "you will walk into research libraries anywhere in the world and their electronic collections will all be the same." ■

Chinese Delegation Visits Elsevier

San Diego, California, USA, December 2003

Electronic Resources Librarian Xiwen Zhang with California State University at San Bernardino led 29 Chinese library directors and publishers as they toured the US. Their stops included the Library of Congress, Harvard University, California State University, San Bernardino and Elsevier's San Diego office.

According to Xiwen, "Our visit to the Elsevier location turned out to be the highlight of the US tour for the delegation from mainland China. Elsevier's innovative, technology-based business model greatly impressed the group. Participants agreed the visit helped them understand new aspects of publishing."



Left to right: Weiguo Bao, Associate VP, People's Education Press; Kirsten Chrisman, Director, Life Science Editorial Offices, Elsevier; Chrysanne Lowe, VP Account Development and Channel Marketing, Elsevier; Xinxin Tan, VP, China Educational Publications Import & Export Corporation; Xiwen Zhang, Electronic Resources Librarian, California State University at San Bernardino.

Elsevier's VP of Account Development and Channel Marketing Chrysanne Lowe gave a presentation and led discussion among the group. Delegates were especially interested in activities involved in building close relationships with and providing high-quality services to librarians, authors and customers. Other topics covered and of great interest to the delegates were the

transition from traditional publishing to electronic publishing and the globalization of the business.

"Through this visit," said Xiwen, "my Chinese colleagues were able to see the future of publishing and consider new directions for development of their own projects and plans." ■

Sharing Information with Corporate Librarians

London, UK, December 2003

As the year came to a close, the Elsevier Life Sciences Sales Organization held its fourth annual Europe, Middle East and Africa workshop, attracting information specialists and librarians from leading pharmaceutical companies.

Guest speaker Roger Brown, Contracts and Licensing Manager, GlaxoSmithKline (GSK), lent insight into customer directions and implications of conducting research in an electronic-only environment by addressing GSK's important move last year to a virtual library.

"This workshop is an excellent opportunity to work with the market players to better understand their content and service needs," commented Michael Rai, Elsevier Regional Sales Manager. ■

Technology @ the Forefront

San Diego, California, USA, January 2004



Forum participants from left to right: Geoffrey Adams, Elsevier; Mike Visser, Endeavor; David Gewirtz, Yale University; Chrysanne Lowe, Elsevier; Karen Hunter, Elsevier; Daviess Menefee, Elsevier; Warren Holder, University of Toronto; Bridget Taxy, Elsevier; Johan Steenbakkens, KB; Jonathan Clark, Elsevier; Rick Luce, LANL; Miriam Blake, LANL; Ann Okerson, Yale University; Tim Tamminga, Endeavor; Chris Shillum, Elsevier; David Bousfield, Elsevier; David Perrow, Oxford University Library Services, Bodleian Library; Andrew Braid, British Library; Syun Tutiya, Chiba University; David Marques, Elsevier; Darrell Gunter, Elsevier; Arie Jongejan, Elsevier; and Peter Brantley, CDL.
Not pictured: Carole Moore, University of Toronto; Roland Dietz, Endeavor.

Our second annual Strategic Partners Forum brought together thought leaders and innovators from libraries worldwide for an open exchange of experiences and ideas for the future.

Participants discussed such diverse topics as the open source movement, digital preservation and some new authentication initiatives. This year's guest speaker, Peter Brantley, Director of Technology at

the California Digital Library, provided an overview of developments at CDL in the field of digital repositories. David Marques, Elsevier's Chief Technology Officer and head of our Advanced Technology Group, reported on new technologies and developments at Elsevier, including the Innovation Lab (see page 11).

The forum concluded with a session in which Arie Jongejan of Elsevier, Marianne Parkhill of Endeavor, and Richard Luce of Los Alamos National Laboratory provided a publisher's perspective, a software vendor's perspective and a librarian's perspective of some key future issues facing digital libraries. ■

Interacting @ ALA Midwinter

San Diego, California, USA, January 2004



Left to right: LIS journal editors Toni Carbo, David Kohl, Connie Foster, Beverly Greer, Jim Mouw, Lisa Janicke Hinchliffe and Jennifer Dörner at the Elsevier booth.

At this year's ALA Midwinter, Elsevier staff had many opportunities to meet you at the booth, in sessions, at the Elsevier Dessert reception and at the Endeavor Digital Breakfast where over 250 librarians listened to a thought-provoking talk by Roy Tennant of the California Digital Library. Now a regular feature on the booth, the Editors Panel drew quite a crowd this year. LIS editors gave hints on how to publish in the field as well as insights into their own journals and experiences. ■

Down Under @ VALA 2004

Melbourne, Australia, February 2004

Customers kept us busy at the 12th VALA Biennial Conference and Exhibition by visiting the booth for a chat or an update or just to rest in the comfortable armchairs we provided. VALA has historically been the forum to showcase new products and innovations of the library world and the highlight for Elsevier this year was MDL's DiscoveryGate.

"It was exciting to be part of a conference that was so upbeat and positive, with all attendees valuing the opportunities it provided to learn, mingle and contribute," said Lyn Bosanquet, Elsevier Regional Sales Manager. "We're proud to have been a Silver Sponsor this year where the conference theme 'Breaking Boundaries' was a familiar echo to Elsevier's own message to the library community — 'Building Insights. Breaking Boundaries™.' We'd like to thank everyone who visited our stand. We hope to see you again at the ALIA 2004 Biennial Conference in September on the Gold Coast!" ■

Regazzi Delivers Invited Lecture

Philadelphia, PA, USA, February 2004

In recognition for his contributions to the field of information science, Dr John Regazzi, Elsevier's Managing Director of Market Development, delivered the 2004 Miles Conrad Memorial Lecture at the NFAIS conference earlier this year. He discussed recent developments in the A&I industry, and suggested a new supply chain could be emerging as scientists begin to rely more on search engines than they did in the past. He also explored the impact this dynamic could have for libraries and users. ■



Marjorie M. K. Hlava, Past President, NFAIS, and Dr. John Regazzi, Managing Director of Market Development, Elsevier.

Product Training and More

Warsaw and Gdansk, Poland, March 2004

The University of Warsaw and the Gdansk University of Technology hosted successful Library Connect Seminars this spring. Thanks to the promotional activity of our hosts Jerzy Gasiorowski in Warsaw and Iwona Alaaie in Gdansk, more than 120 librarians, information specialists and researchers from the 64 institutions in the Polish Academic Consortium attended the two full-day programs.

The consortium recently renewed its ScienceDirect Onsite license through which members have access to approximately 1,700 full text journals. The programs gave Account Development Manager Sandra Grijzenhout a chance to provide training and updates on ScienceDirect features and functionality, as well as information about new content, such as reference works, book series and backfiles.

Customers provided their feedback on Elsevier products and services in lively question and answer sessions. Account Manager Lukas Mayerhoff, Product Sales Manager Joost Gerdes, and Regional Sales Managers Barbara Kalumenos and Nick Turner gave updates on related products such as LinkFinderPlus and EMBASE.com. Institutes with access to Compendex on the EngineeringVillage2 platform received an update on new developments.

"It was inspiring to discover how many new elements and possibilities exist in well-known products. Learning never ends, so we are looking forward to more of Elsevier's warm and



Seminar participants at the University of Warsaw, Poland.

user-friendly workshops and trainings," said Jolanta Stepniak, Director Main Library, Warsaw University of Technology, Poland.

"This professional and interesting training we received from our Elsevier colleagues at this seminar has enriched our knowledge and shown us new horizons," commented Iwona Alaaie, Librarian, Gdansk University of Technology, Poland. ■

Staying Connected

Did you know?

Web Editions are moving to ScienceDirect. From May 15, 2004, users will benefit from new features and functionality with no change to the current terms. Twelve-month rolling access is still offered at no additional charge with an institutional subscription to the print edition. More information appears at www.web-editions.com

Did you know?

ScienceDirect Interactive Tutorials are freely available in nine languages at www.info.sciencedirect.com/user_help/user_guides

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Here at Elsevier we want to be sure you are aware of changes and improvements we make that affect you and your patrons. We offer a number of email newsletters for our librarian customers. You can check them out at the URLs below.

SDConnect

Product news from ScienceDirect once every two months including information on enhancements, content additions and resources for librarians. www.info.sciencedirect.com

EIUpdate

Engineering Information's bi-monthly newsletter featuring articles on the latest product enhancements, search strategies and "Librarian's Corner" column. www.ei.org/eiupdate

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Featuring interviews and comment from Elsevier's world-class book authors. www.elsevier.com/locate/covershots

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Tell us what you think

Would you be interested in having an Elsevier product update section in your copy of Library Connect? Please let us know by emailing us at libraryconnect@elsevier.com.

Corrections to Library Connect, Volume 1, Issue 4:

1. The citation given in the article, "Scholarly Publishing: 12 Observations on the Current Situation and Challenges for the Future," on page 3 should have read as follows: This article is based on a presentation given by Karen Hunter at Principles, Money, and Access: An Institute on Building New Scholarly Publishing Relationships co-sponsored by NELINET, BLC, Inc. and the Regional Medical Library at UMass Worcester.

2. The caption for the photograph appearing in column one of "Libraries Look to the Future," on page 7 should have read as follows: Customers enjoy the services at Sengkang Community Library — one of Singapore's "lifestyle libraries." Photo copyright of National Library Board Singapore.

Upcoming Events 2004

MAY

- 12 Library Connect Seminar, Hong Kong
- 12 Library Connect Seminar, Taipei, Taiwan
- 12-14 International Exhibition of Archives, Libraries and Specialized Information Services, Estoril, France
- 19-22 China Academic Library Information System (CALIS) Meeting
- 20-23 Warsaw International Book Fair, Warsaw, Poland
- 22-25 Medical Library Association, Washington, DC, USA
- 25 Medical Librarian Luncheon, Washington, DC, USA [Speaker: Dr. Richard Horton, Editor/publisher, *The Lancet*, "Electronic Cultures and Clinics: Reasons to be hysterical (and hopeful)"]
- 24-29 Libraries in the Digital Age 2004, Dubrovnik, Croatia
- 25-27 INFORUM 2004 — 10th Conference on Professional Information Resources, Prague, Czech Republic
- 26-27 Scandinavian Directors' Forum, Stockholm, Sweden
- 27-28 75th general meeting of Japan Medical Library Association, Tokyo, Japan
- 30-6/3 25th International Association of Technological Libraries Conference, Krakow, Poland

JUNE

- 4-6 Book Expo America, Chicago, USA
- 5-10 Special Libraries Association, Nashville, TN, USA
- 6 Elsevier SLA Dessert Reception, Nashville, TN, USA
- 8-10 i-Expo 2004, Paris, France
- 9 Library Connect Workshop, Paris, France (conducted in French and English)
- 11 Elsevier Engineering and Chemistry Corporate Workshop, Paris, France (conducted in French and English)
- 16-19 CLA (Canadian Library Association)/BCLA (British Columbia Library Association) 2004, Victoria, BC, Canada
- 24-25 Library Connect Conference, Munich, Germany (conducted in German and English)
- 24-29 American Library Association, Orlando, FL, USA

JULY

- 5-6 Library Connect Seminar, Tokyo and Osaka, Japan
- 8-9 Library Connect Seminar, South Korea
- 11-15 WebCT User Conference, Orlando, FL, USA
- 15-16 Annual Meeting and Conference of Japan Special Library Association, Hiroshima, Japan

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Inez van Leuzen, Account Development Manager, Elsevier, Amsterdam, The Netherlands

In December 2003, I trained library staff and researchers from Tripos Receptor Research Ltd. on ScienceDirect via WebEx. Scientific Librarian Dr. Rachel Benzies organized for 15 staff in the same location to view the training session in one room, put the telephone on speaker, and displayed the presentation on a large screen. This worked very well and we didn't experience any delays.



I found the ScienceDirect training useful, allowing me to make more effective use of this tool and help me in my job.

— Mark Middleton, Tripos Receptor Research Ltd, UK

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