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ERM heats up

Electronic resource management, or ERM, may become the next must-have application for academic and large public libraries.

Electronic resources are more complex to describe, acquire, and support than print publications. As the share of library budgets allocated to electronic resources grows, libraries are increasingly hard-pressed for tools to help them select, document, monitor, and provide access to these materials.

Some ERM functions not usually included in integrated library systems include:

- Generating and maintaining title and subject lists of electronic serials, with actionable title-level links
- Tracking the dynamic coverage of collections and aggregations
- Tracking the involvement of various library departments and individuals in steps from initial evaluation and selection through the negotiation and renewal of licenses
- Documenting subscriptions and licenses in a detailed and standardized way
- Displaying relevant information about access, permissions, and restrictions on use to the public through the OPAC and other finding aids
- Tracking problems, cost accounting, and usage reporting
- Providing management reports comparing subscription costs, license terms, and other parameters across publishers and services

See **ERM** *on page 2*

The future according to OCLC

Prompted by the sudden rise of Google and its impact on libraries, OCLC took a fresh look at the significant changes occurring in libraries. Last year OCLC conducted an environmental scan titled Pattern Recognition, a 100-page report downloadable in seven PDFs from its website. Some of its findings follow.

Just five years old in 2004, Google answers 200 million questions each day in 88 languages. Libraries have thrived in information-scarce societies; yet their future is in question in an information-rich environment. Will libraries and librarians be disintermediated with the user going directly to the source of the content?

Information consumers dominate the social landscape. They can be characterized by three qualities:

- They are accustomed to a self-service approach as witnessed in banking, booking travel, and information retrieval.

See **Future** *on page 4*

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HIGHBEAM e-volves online services

HighBeam Research is the new name for Alacritude, which includes eLibrary, Researchville, and encyclopedia.com. Designed for people engaged in serious business, educational, and personal research, HighBeam enables users to locate answers on the Web, within selected online services, and in the proprietary HighBeam eLibrary database, which contains 28 million articles from 2,600 publishers going back as far as 20 years.

HighBeam Research has a basic membership available at no charge and a full membership for $19.95 per month or $99.95 per year, which includes unlimited access to its full-text resources.

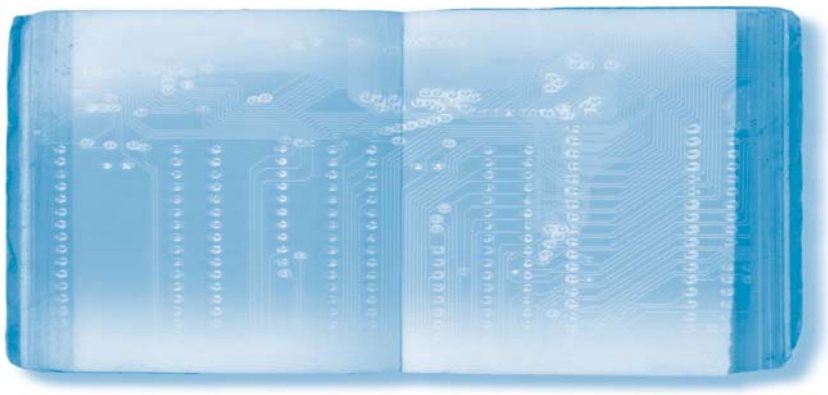
The founder of HighBeam Research, Patrick Spain, previously founded Hoover's Online and sees a growing market of people and small businesses willing to pay a modest fee for good-quality information that is accompanied by tools to make it more accessible and useful.

For example, HighBeam Research allows users to conduct simple, advanced, and natural language searches; sort search results by date or relevancy; save, export, and e-mail articles; save searches; and set up alerts.

When Microsoft shipped Office 2003, it included a link to eLibrary in its research task pane under "tools" in Word. HighBeam Research's integration of content and functionality fills the gap between free search engines and high-end research services.

Libraries can expect to see more examples of content being presented at point of need. Librarians could collaborate with these new services, with a click for assistance, picking up where the other services leave off. Librarians then are going to the user, rather than requiring the user to come to the library.—*JL*

Contact: www.highbeam.com



ERM *from page 1*

The first two functions have been incorporated into many add-on products from publication access management services (PAMS), online service providers, and library systems vendors. Libraries, however, want these products to be integrated with other library system files and interfaces, and they want them to be part of a larger package of e-resource management.

The Electronic Resource Management Initiative (ERMI) of the Digital Library Federation (DLF) has been working to develop common models for resource management and functional requirements for ERM systems. The ERMI website tracks both local and commercial ERM applications.

ERMI has drafted a data structure and data element dictionary for information that an ERM application must record. ERMI names and defines terms describing all aspects of e-resource management including modes of access and authentication, selection and evaluation statuses, license terms, and consortial purchase agreements. It also is investigating an XML schema for transmitting a snapshot of this information.

Much of the information required for e-resource management must be communicated between libraries and publishers, vendors, and other agents. A related effort, the NISO/EDItEUR Joint Working Party on the Exchange of Serials Subscription Information (JWP) is developing a standard format based on ONIX for Serials for transmitting information about subscriptions and holdings among publishers, online service providers, subscription agents, PAMS, and libraries. The standard will help vendors import and export comprehensive information about serial products and prices.

Until recently, most applications supporting ERM functions have been developed in-house by academic libraries. Now the vendor

community is catching up. Several commercial ERM products are available or in various stages of development—many of them based on ERMI and JWP specifications.

The Colorado Alliance's Gold Rush is a suite of Web-based tools that support database selection and subscription management. Gold Rush reports allow libraries to compare the title lists of more than 400 aggregators, publishers, and indexing-abstracting services. Staff can annotate product records with detailed information on vendor contacts, subscription fees, license terms, and access information.

Another hosted application, Ebsco's Electronic Journals Service, focuses on electronic journal titles. It allows subscribers to customize their access profiles and download and annotate journal lists.

Innovative Interfaces is the first library systems vendor to offer an ERM module that can be integrated with Millennium or used as a stand-alone product. Electronic Resource Management helps libraries manage licensing, subscription and payment details for e-journals, abstracting and indexing databases, and full-text databases. Staff can relate individual titles and aggregations, record access and permissions information, and display selected information to the public.

Other vendors with ERM modules under development include VTLS, Inc. (with its Verify product); Ex Libris (USA), Inc.; and Dynix Corp. (formerly epixtech, inc.). Sirsi Corp. is incorporating ERM functions into existing modules. 2004 will be a big year for ERM applications.—*Priscilla L. Caplan*

Contact: ERMI, www.library.cornell.edu/cts/elicensestudy/home.html

VTLS adds open-source products

Two new products, Vital and Vortex, from VTLS demonstrate a novel and productive approach to open-source software.

VTLS's digital asset management system, called Vital, is being built on top of the open-source Fedora (Flexible Extensible Digital Object Repository Architecture) digital repository management system. Fedora, which was featured in the November 2003 issue of *Smart Libraries Newsletter,* was developed jointly by the University of Virginia and Cornell University. It provides digital object ingest, storage, version control, export, and access control functions.

Vital integrates the Fedora repository with workflow tools to create digital objects and metadata, and it adds enhanced searching, retrieval, and presentation services. Vital can be used with the Virtua integrated library system or as a stand-alone digital library system. It is scheduled for release in spring 2004.

The Vortex product allows library metadata to be harvested using the Open Archive Initiative Protocol for Metadata Harvesting (OAI-PMH). Vortex supports MARC21, Dublin Core and MODS metadata schemes, and Unicode UTF-8 encoding. VTLS is making Vortex available as open-source software under the GNU General Public License (GPL).

The incorporation of open-source software into commercial products is commonplace in computing and communications industries but rare in the library systems arena. VTLS is banking that installation, training, and support for free open-source software will provide a reliable revenue stream.

In the case of Vortex, VTLS will charge only for these services, and it will manage the source code by incorporating future user enhancements into the distributed product. Libraries also can purchase installation, training, and support for Fedora from VTLS, with or without purchasing Vital.

The Fedora project remains responsible for maintaining the Fedora code. VTLS will incorporate new versions of Fedora into Vital as they become available, in addition to enhancing the Vital extensions.

The Vital model seems to be a win for all parties involved:

- The vendor saves substantial expense and development time by integrating free open-source software.
- The Fedora project gains a distribution channel and a mechanism for providing improved support and training for its user community.
- Libraries receive a ready-made interface to the Fedora repository, and they retain the advantages of open-source software including lower cost, access to the source code, and the ability to contribute enhancements.—*PLC*

Contact: www.vtls.com

Future *from page 1*

- They are satisfied with the information found on the Web.
- They experience work and play as seamless in a mobile environment where information and communications technology invisibly support their collaborative approach with others.

Slow economic growth worldwide will prompt democratic societies to reexamine their practice of funding the public good. Currently 75% of the world's library spending is in five countries: United States, Japan, United Kingdom, Italy, and France. Libraries have not done a good job of demonstrating their return on investment (ROI), as colleges have in demonstrating the value of a degree.

Society is moving from an era of computing (mainframe, PC) to an era of connectivity (physical—networked, logical— wireless, embedded—smart). Hot technologies to track include: WiFi (wireless fidelity), smart cards, personalization, and alerting technologies.

Technology trends include:

- Providing structure to unstructured data with powerful search engines and categorization techniques
- Moving toward distributed solutions and component software
- Maturing of open-source solutions that create a state of permanent beta
- Evolving digital rights management (DRM) architecture that shifts the focus from protecting the owner to managing rights of the user

E-learning that becomes part of lifelong learning will dominate the educational landscape. These changes, though, will evolve with reduced funding available to support institutional repositories and growing expectation for open access.

PUTTING IT ALL TOGETHER

Recognizing that libraries must increasingly rely on one another's collections, OCLC has packaged its services for groups to enable consortia to build online union catalogs, share resources, and search with a locally customized interface.

For years libraries have been cataloging their collections and employing interlibrary loan to borrow from one another's collections. Now libraries can easily create a group catalog that is a subset of WorldCat.

By adding their own logos, libraries can brand the group catalog and create an expanded local or regional catalog that facilitates resource sharing. Users can begin searching local resources and easily expand to regional groups or worldwide.

When accessing WorldCat records through FirstSearch, many newer bibliographic records contain cover art, tables of contents, reviews, excerpts, and other descriptive information. Users have more information to determine the relevance of an item and can use the holdings data to find where it is located. Users have the option of initiating their own ILLs with OCLC's Direct Request, which converts the MARC record into an ISO-10161 ILL request, saving considerable staff time.

Libraries in Missouri began working with their group catalog in December 2003, and in January 2004 all public, community college, and state university libraries in Florida accessed their group catalog as part of the new Florida Electronic Library.—*JL*

Best known and hardest to assess is the library landscape. Libraries still serve as places for social assembly in their communities. With many librarians retiring in the next five to 10 years, opportunities for significant change exist. Access to content that provides value will continue to sustain libraries.

In looking ahead, three patterns are evident:

- Libraries are not readily accessible at point of need for a self-sufficient researcher.
- With digital content available in micro units, such as articles instead of journals, context becomes more important.
- With an emphasis on tools that enable increased collaboration, people will still seek context in the form of related content.

Libraries are still an integral part of their communities. But the question remains: How do libraries collaborate with their users in this new infosphere and use technology to deliver services to the information consumer?

This OCLC report is essential reading for librarians—not because its conclusions are right, but because the authors are willing to recognize the radical changes taking place that will affect libraries. They have the courage to raise the real question—not how do libraries survive, but how do they collaborate with their users to help them access the information they seek.

Rather than keep this report as an internal document, OCLC is sharing it with the industry and actively soliciting feedback in a collaborative discussion.—*Judy Luther*

Contact: www.oclc.org

Sir Tim of the Web

The inventor of the World Wide Web, Tim Berners-Lee, will be knighted in May by Queen Elizabeth II in honor of his services to the global development of the Internet. He will receive the second highest rank of Knight Commander, Order of the British Empire.

Berners-Lee is the director of the World Wide Web Consortium (W3C), which teams with the Computer Science and Artificial Intelligence Laboratory (CSAIL) at MIT, European Research Consortium for Informatics and Mathematics (ERCIM) in France, and Keio University in Japan to lead the Web to its full potential, ensuring its stability. He also wrote *Weaving the Web,* published by HarperCollins in 1999.

Seldom do technology leaders receive accolades that give them celebrity status. Berners-Lee joins the ranks of other scientists including Isaac Newton (the first scientist to be knighted) and physicist Stephen Hawking, as well as performers including Mick Jagger of the Rolling Stones and Paul McCartney, previously of the Beatles.—*JL*

Standards in the news

ISBN grows up

The 10-digit ISBN, one of the most widely used identifiers in bibliographic databases, will be expanded to 13 digits. The standard is being revised in order to avoid running out of numbers and to align the ISBN with the longer Global Trade Item Number (GTIN).

The current draft of the ISBN standard calls for the change to be implemented January 1, 2007. Books currently carry both EAN-13 barcodes (a form of GTIN) and 10-digit ISBNs. Retailers in the United States must be able to send and receive GTINs by January 1, 2005, but they will continue to support 10-digit ISBNs as well until 2007.

This change will affect publishers, distributors, retailers, and libraries. In library systems, ISBNs are used throughout every module for such functions as searching, ordering, duplicate detection, and interlibrary loan.

Libraries should discuss with their library system vendors about how they should start preparing for the change now. For example, library systems that use the BISAC file format standard for electronic ordering should move to newer formats that can accommodate the larger ISBN number.—*PLC*

Contact: www.nlc-bnc.ca/iso/tc46sc9/isbn.htm

NISO MetaSearch Initiative spawns task groups

The NISO MetaSearch Initiative, led by Jenny Walker of Ex Libris (USA), Inc., and Andrew Pace of North Carolina State University, has formed three task groups chaired by library and vendor representatives:

- Access Management will gather requirements for metasearch authentication and access needs, inventory existing processes now in place, and develop a series of formal-use cases describing the needs.
- Collection Description will focus on a uniform way of communicating information about collections and services offered by content providers.
- Search/Retrieve will investigate current practices in search and retrieval and define a standard vocabulary, best practices for interfaces, and recommended data elements for result sets.

Metasearch, also called a broadcast or federated search, is an important component of library portals. The MetaSearch Initiative aims to improve the information environment by identifying standards and best practices to support efficient, effective, and user-friendly information retrieval. It is a good example of libraries, library systems vendor, and information service providers working together.—*PLC*

Contact: www.niso.org/committees/MS_initiative.html

Info URI expands Web compliance

Working under the auspices of the National Information Standards Organization (NISO), a joint task force of publishers and libraries has published the Info Uniform Resource Identifier (Info URI) scheme to identify information assets. A URI is a means of identifying a resource within the Web global information architecture.

The Info URI scheme allows legacy identifiers such as Library of Congress Control Numbers (LCCN), International Standard Book Numbers (ISBN), and OCLC numbers to be used by Web technologies that require URIs, such as XLink, RDF, Topic Maps, and OpenURL.

Qualifying public identifiers from the library, publishing, and media communities can be registered as namespaces within the Info URI scheme. For example, "info:lccn" signifies the namespace of LCCNs; the string "info:lccn/n78890351" identifies an information asset with the LCCN "n78-890351."

The Info URI is not actionable, meaning that clicking one in a browser won't do anything. The Info URI specification and registry are enabling technologies. They allow standards such as OpenURL and the applications that use them to be fully Web-compliant.—*PLC*

Contact: www.info-uri.info

GETTING THE PICTURE

Public libraries faced with challenging budget decisions can use demographic data to gain insights on prioritizing services and to make a strong case to meet user needs. City administrators accustomed to seeing planning maps that detail community needs and services will be able to quickly grasp the library's situation.

Geographic information systems (GIS) have been used for years by government and business. These tools help them better understand the needs of those they serve and make informed decisions. New to the library market, these emerging tools are beginning to be adopted by forward-thinking libraries. Civic Technologies and Cybraryn both offer GIS products to librarians.

Civic Technologies created Library Decision, a Web-based product being used in California, Texas, Florida, Georgia, and Iowa. Library Decision maps demographic data from the Census 2000 (age, language, education level attained, employment status, occupation, income) and data on schools from the National Center for Educational Statistics (NCES) (type of school, grade levels, enrollment, teacher data, special programs) to library service areas.

Confronted by a steadily growing population, Glendale Public Library, in the third largest city in Los Angeles County, Calif., asked Civic Technologies to customize its GIS capabilities so it could gain insights for its long-range planning process and to determine the location of new branches. Maps are effective tools for illustrating the demand for needed resources.

Combining data about the user population with current levels of library use allows planning staff to pinpoint service areas for cardholder development campaigns and provides context when comparing service indicators across branches. Solid data on underserved populations is useful in applying for grants.

Cybrarian's CybraryView is a PC-based product that works with the library's ILS system and Microsoft Office to create colored thematic maps and show data visually. Libraries using Cybraryn products can graphically display patron usage and peak times of demand for PCs. Maps can be exported and have been printed as large as large 4 by 6 feet for presentations. This software also offers many options and filters for sorting data. CybraryView is free to library schools along with user instruction coordinated by company staff.

Library patrons also can use these same tools to analyze geographic regions and see data, for example, on ethnic populations of a given region. They can display maps showing population, schools, libraries, and hospitals. At conferences, librarians can obtain a free CD showing location and contact details for public libraries nationwide.

Librarians will benefit from adopting accepted applications like these from other fields and may be surprised at what they've been missing when they can present their case in the context of their environment. The applications create a powerful and tangible picture to those whose support is needed to fund the delivery of library services to growing and changing populations.—*JL*

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