E-books on the move

To many, the e-book market was dead on arrival at the turn of the century. Lack of a firm business model, too many hardware and software choices, and lack of strong digital rights management (DRM) tools made many libraries shy away from the technology; others felt that they got in too deep, too fast.

But in the last few years, three important changes have led to a re-emergence of the e-book market, especially in libraries—commercial acceptance, improved content, and more stable technology.

"On the first day we went live, we sold two books and had three help desk calls," said Stephen Cole, founder and managing director of eBooks Corp., in 1997. Persistence won out, as did the Cole's foresight in capturing the ebooks.com domain. Seven years later, eBooks Corp. is a profitable e-book company with a strong Web presence and tens of thousands of books for sale. It focuses primarily on science, technology, and medicine (STM) publishers to avoid trying to be all things to all people.

Its success led it to explore a library business model that will launch at the American Library Association (ALA) Conference in June 2004. Working

From reporting to data mining

In what might be the start of a trend, integrated library system (ILS) vendors are partnering with vendors of business intelligence (BI) software to develop reporting solutions based on data warehousing and data mining techniques.

All library systems offer some reporting capability with preconfigured or canned reports and tools to perform ad hoc queries, but several vendors are now offering this improved reporting as optional extra-cost products.

A data warehouse is a central repository for the business information of an enterprise. It typically aggregates and organizes information from multiple sources for use in data analysis. Data mining is a way of looking through large quantities of data, usually stored in a data warehouse, to find patterns and relationships that can be used in descriptive or predictive ways.

In libraries, information can be aggregated from various sources including the databases and transaction processing logs of the ILS, standalone applications such as interlibrary loan or digital content management systems, and Web server logs.

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with several library partners, eBooks Corp. has carefully crafted both an acceptable licensing model for publishers and libraries, and a platform that will deliver e-books to patrons without crippling their access or costing an arm and a leg (see "E-book Business Models" sidebar).

The model, called nonlinear lending, grants a library a certain number of days for which users can have access to the self-expiring e-book. The model is a nice alternative to the single-user/single-book model that does not take advantage of the digital environment.

Despite Barnes and Nobles' decision to cease e-book sales, other commercial entities continue to realize profits and growth. Palm's e-book reader is one of the most popular, and notions that users will not tolerate lower dpi (dots per inch) and smaller screens are quickly becoming the outdated complaints of a few industry curmudgeons.

One of the lessons that e-content companies netLibrary and Questia learned is that content is still king, regardless of format. Despite library reluctance to embrace the technology, e-book companies could not win unless they offered relevant and up-to-date content. Some library e-book firms have combated this problem by either focusing on specific content or specific markets.

One of the other new players on the scene, Overdrive, Inc., has been successful in making e-books available to the public library market. Using Adobe's content server architecture, Overdrive allows patrons to download self-expiring e-books to the device of their choice through the library's online catalog.

Integrated library system (ILS) companies also are getting in on the action. Several systems incorporate special online catalog displays of e-books through the MARC record; others, such as Dynix Corp., have partnered with firms such as Overdrive. Overdrive works with ILS vendors to incorporate patron authentication into e-book access through its Digital Library Reserve system.

The e-book revolution never took root, but e-books are making a strong comeback in libraries. Little doubt remains that patrons will come to expect e-book services in the same way that they now expect the majority of journal content to be available online.

Increased proliferation of mobile, handheld, and PC Tablet devices will only strengthen the e-book market. Better tech-

E-Book Business Models

Though a slight over-generalization, the library e-book market can be placed in four categories:

- Middle-man model: Cost is 100% to 125% of print retail for the e-book, and a subscription (that is, license) model for the delivery platform. This model might or might not include perpetual ownership of the e-book itself. What makes this model attractive is a stable platform and a common denominator (usually) on the digital rights management (DRM) across publishers.

- Publisher-direct: Cost is 100% + 1% to 100% premium for perpetual ownership, unlimited concurrent access, and reasonable fair-use printing and copying (the 1% to 100% premium adds flux). One attractive aspect is that this model might not necessitate an access license; however, the model might not be sustainable if e-usage increases dramatically over time.

- Pure subscription: Some fluctuating premium for fluctuating access to the title, with some downloads that have highly restrictive digital rights. A higher premium might mean fluctuation but still no real ownership. This model is made popular by netLibrary and eBrary.

- Free to browse: This model, made popular by the University of California Press and the National Academy Press, has shown that free academic e-books do not cannibalize print sales. An equivalent of this model of trade titles isn't likely because of more realistic fears that content will be widely distributed and shared, à la napster.—*AKP*

nology and profitable business models will continue to make e-books more attractive to publishers.

Libraries should remain aware of the e-book market and be familiar with the varying business models and content offerings. In the next few years the question will not be whether to enter the e-book market but how and with whom.—*Andrew K. Pace*

Contact: http://ebl.ebooks.com
www.overdrive.com
www.netlibrary.com

Standards in the news

Statistics standards finally on ballot

Despite the combination of two usually dry topics, tremendous progress has been made in statistical standards for libraries. After years of struggle with third-party statistics that arrive in libraries in a variety of formats, the National Information Standards Organization (NISO) has posted the Z39.7 standard for ballot and comment. The ballot period runs March 12 to July 1, 2004.

The standard identifies categories for basic library statistical data reported at the national level and provides associated definitions of terms. Although it is not intended to be comprehensive in scope, the standard does aim to arrive at a set of commonalities with which many libraries have to address, such as reporting on electronic resource collection building and public access to subscribed content.

Z39.7 will prove especially useful in conjunction with E-Metrics, the Association of Research Libraries' (ARL) study to determine how to develop statistics and performance measures that address the delivery of networked information resources and services. The standard does not address detailed statistics for specific areas where it seems more appropriate for experts in those areas to make recommendations.

Annual struggles to collate, aggregate, and distribute electronic resource statistics has led to movements on several fronts. In addition to Z39.7 and E-Metrics, libraries, vendors, and standards bodies continue to move forward with Project COUNTER (Counting Online Usage of Networked Electronic Resources), an international initiative designed to facilitate the recording and exchange of online usage statistics.

Arrival at a set of standards for statistics could collectively save libraries thousands of work hours per year.—*AKP*

Contact: www.niso.org/standards/standard_detail.cfm?std_id=487

RLG′S AUTOMATIC EXPOSURE

Automatic Exposure, an initiative led by RLG (previously known as Research Libraries Group), will make acquiring technical metadata for digital preservation by libraries easier and less expensive. (Technical metadata describes the detailed technical characteristics of digital files.)

NISO Z39.87-2002 (AIIM 20-2002) "Technical Metadata for Digital Still Images" is a Draft Standard for Trial Use slated to be revised and approved as a formal standard in 2004. The standard defines dozens of data elements that may be needed to support the long-term preservation of image files, but values for these elements can be hard to obtain.

Automatic Exposure intends to address this problem in three ways:

■ By talking with manufacturers of high-end scanners and digital cameras about how their products can automatically capture technical metadata and make that metadata available for transfer into digital repositories and asset management systems

■ By identifying existing and emerging technologies for automatically extracting technical metadata from files and file headers

■ By exploring how tools developed at individual institutions or by the imaging industry can be leveraged to serve the digital library community

The Automatic Exposure website is now being updated regularly. It includes links to a revised and updated white paper on the project and minutes from the first Automated Exposure project meeting in November 2003.—*PLC*

Contact: www.rlg.org/longterm/autotechmetadata.html

Reporting *from page 1*

Relevant information also can be taken from sources external to the library, such as campus portals and directories, demographic databases, or business systems of a parent organization.

Sagebrush Corp. is one of the first library system vendors to offer a true data warehouse application. School districts have been hard-pressed to meet the complicated reporting requirements of the No Child Left Behind Act. Sagebrush Analytics, released in October 2003, was created to help address this need.

The data warehouse can aggregate data from student records, test results, library systems, and school financial and transportation systems at the district, regional, or state level. The application moves Sagebrush beyond library systems into the larger K–12 arena.

Other vendors with new reporting products include Sirsi Corp.; Ex Libris (USA), Inc.; and Dynix Corp. (see table 1).

Traditional reporting is done by executing queries directly against the library system's database. If the database is optimized for online transaction processing, reporting can be slow, and if queries are executed in real time they may interfere with the performance of the online system. As a result, many large libraries actually use a backup copy of their database for reporting.

The data warehouse model addresses these problems: data is extracted from the production system and stored separately in a format optimized for reporting. In addition, BI interfaces offer browser-based clients, integrate visualization tools, and require no knowledge of structured query languages.

No matter how simple the interface is, however, a user will always have to know something about the nature and structure of the underlying data to produce good reports.

A library considering the purchase of an add-on reporting tool should make sure the increased reporting capability is worth the price. Consider these features:

- Are updates to the ILS database reflected immediately in the data warehouse? Is there a mechanism for guaranteeing that the same data in both systems are identical?

- Is the data warehouse limited to data from a single library, or can it aggregate data for a district, consortium, or multiuser system? Can data outside the ILS be included?

- Does the user interface support features such as natural language queries, charting and graphing, automated alerts, and building reports by drag-and-drop?

- Can the application do predictive modeling, as well as historical description?

A data warehouse/data mining application should be more than a traditional reporting system in new clothes. A good product can simplify reporting significantly, make new types of queries possible, and contribute to improved management decision making.—*Priscilla L. Caplan*

TABLE 1. ADD-ON DATA WAREHOUSE PRODUCTS

Vendor	Product	BI partner	Comments
Dynix Corp.	Horizon Web Reporter	MicroStrategy	Due 2nd quarter 2004; does not use data warehouse
Ex Libris (USA), Inc.	Aleph 500 Reporting Tool	Brio Software (Hyperion)	Formerly called Aleph 500 Data Warehouse
Sirsi Corp.	Director's Station	SwiftKnowledge	
Sagebrush Corp.	Sagebrush Analytics	SwiftKnowledge	

Ex Libris names new president

Almost a full year after Carl Grant left Ex Libris (USA), Inc., to become president of VTLS, the Ex Libris Group has finally named a new president for its U.S. subsidiary. Dan Trajman will join Ex Libris in the Boston office, where much of the company's non-ILS products have been developed.

Trajman's appointment follows the trend of industry outsiders joining the tight-knit ranks of the library automation industry. Whether executives new to libraries can contribute successfully is still being tested.

Trajman was formerly president of Sapiens America, an insurance technology company, and iKnowledge, a content management system firm. Ex Libris' executives now span the country, with the vice president of sales based in California, operations in Chicago, and new product offerings in Boston.—*AKP*

YAHOO ADDS DIGITAL LIBRARY CONTENT

Yahoo's new Content Acquisition Program (CAP) will make digital cultural heritage materials more accessible on the Web. Yahoo is working with libraries and other noncommercial sites to include content from the deep or hidden Web, including databases of citations to digital materials.

Yahoo works individually with CAP partners to obtain their metadata, does any necessary reformatting, and indexes it in Yahoo Search. Some library partners include UCLA's Cuneiform Digital Library Initiative, the National Science Digital Library, and Northwestern University's OYEZ project, which offers more than 2,000 hours of Supreme Court audio.

The inclusion of the University of Michigan's OAIster is especially noteworthy because OAIster has aggregated more than 3 million metadata records from 268 other digital collections. These records are now all indexed by Yahoo.

CAP, announced in early March, has separate focuses on commercial and noncommercial sites. Noncommercial partners make individual arrangements with Yahoo and may spend some time helping Yahoo staff make their content available.

The partner's site gains greater accessibility, and Yahoo gains content and technical knowledge about how to expose the hidden Web. Other search engine providers have projects to expose library metadata on the Web, most notably Google's pilot with OCLC to index WorldCat records. Although this trend is welcome, it only begins to address the difficult problem of finding library content on the Web.

The fact that metadata is included in a search engine's index does not necessarily make it discoverable. Search engines use complicated ranking algorithms that account for such factors as word frequency, the location of the search term on a page, and the quantity and quality of external sites that link to the page. Metadata records from library databases are not going to rank high by any of these tests.

Additional research and development is necessary to prevent metadata for cultural heritage content from being buried among hundreds of thousands of results.

Libraries and other not-for-profit sites interested in being included in Yahoo's CAP should e-mail psm@yahoo-inc.com to see if they qualify for the program.—*PLC*

Innovative and **Endeavor** look overseas for market

In March both Innovative Interfaces, Inc., and Endeavor Information Systems Inc. expanded their international customer and service bases. With new-name sales all but dried up stateside, large ILS vendors will continue to look overseas to increase their market share. With the industry hovering at about $500 million in sales per year for the last few years, ILS vendors must develop new products or create new markets.

Endeavor has opened regional offices in Amsterdam, The Netherlands; Rio de Janeiro, Brazil; and Singapore. Innovative's Millennium system was chosen by several European libraries, including Université de Valenciennes (France), Universidade de Coimbra (Portugal), and Universitaria de Huelva (Spain).—*AKP*

Sony debuts e-ink on e-paper

In April, Royal Philips Electronics, Sony, and E Ink Corp. debuted the first consumer application that includes an electronic paper display. Sony's new e-book reader, LIBRIé, uses E Ink's electronic ink technology, offering a "truly paper-like reading experience with contrast that is the same as newsprint," according to a joint press release.

Libraries and e-book enthusiasts have been waiting for practical applications of e-ink since its prototype debut almost four years ago at the now discontinued e-book conference sponsored by the National Institute of Standards and Technology (NIST). E-book prognosticators have been saying for months that the next new e-book device would surface in Asia, where e-content devices are more widely used.

Running only on AAA batteries, the 170-pixels-per-inch reader offers an appearance similar to a newspaper. The e-ink of the reader can be read in varying light and from all angles.

The LIBRIé reader can hold about 500 books. Since the demise of the RocketeBook and Softbook last year, e-book devices have taken a backseat to software solutions and grow-

ing content. With a revolutionary technology like e-ink, device wars will soon heat up. Publishers have already started to scramble to provide more electronic content for a growing library e-book market. Gale, ABC-Clio, and Dekker are just a few companies making their content directly available to libraries.

Middle-man suppliers also are expanding content—Baker & Taylor is marketing ED, its new E-content Delivery product; and eBooks Corp. announced content deals with six of the biggest science, technology, and medicine (STM) publishers in the world, including Cambridge University Press, Kluwer, Oxford University Press, Springer, Taylor & Francis, and World Scientific.

Priced at around $375, the new e-book reader should provide an economical alternative to Tablet PCs, which average about $2,000 per unit. Sony's U.S. representatives were unable to say when an e-ink reading device would be available in North America.—*AKP*

Contact: www.eink.com/news/releases/pr70.html

GATES FOUNDATION
REPORTS ON
DIGITAL DIVIDE

A new report shows that public libraries have helped close the digital divide by providing free, public access to computers and the Internet, but that they face significant challenges in sustaining and improving this service.

The report, "Toward Equality of Access: The Role of Public Libraries in Addressing the Digital Divide," was developed by the Bill & Melinda Gates Foundation in collaboration with the American Library Association (ALA), the Institute for Museum and Library Services (IMLS), and several national civic groups. Bill Gates, Sr., released the new report at the 10th biennial conference of the Public Library Association in March.

Among the findings:

■ More than 95% of library buildings offer public-access computing, up from 28% in 1996.

■ More than 14 million Americans, 10% of all Internet users, access the Internet through public libraries.

■ Public-access computing has especially benefited certain socio-economic groups, including African Americans, Hispanics, and families making less than $15,000 annually.

■ Between 1996 and 2001, library visits increased 17%, a trend partially attributed to Internet access.

Despite these benefits, libraries face serious challenges as they continue to provide access to digital information. Funding cuts and shifts in public policy prevent libraries from investing in computer upgrades, ongoing maintenance, and technology training for staff.

Connectivity depends heavily on the continuance of the federal E-rate program. Public access computing in rural and small town libraries is particularly threatened.

The report did not list the termination of the Gates Foundation U.S. Public Library Program among the challenges. Since 1997, the foundation has invested more than $250 million to provide public libraries with computers, software, staff training, and technical support.

The Foundation now wants the wider community to establish reliable, consistent funding to sustain public-access computing. To this end, it has discontinued grants of computers and is replacing direct technical support with advice on the WebJunction website.—*PLC*

Contact: www.gatesfoundation.org/Libraries/
    USLibraryProgram
The report is available at www.gatesfoundation.org/
    nr/Downloads/libraries/uslibraries/reports/
    TowardEqualityofAccess.pdf
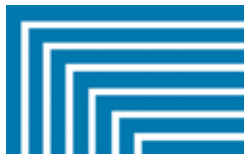
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May 2004
E-books revving up; new e-ink

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