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OCLC Acquires EZproxy

Smart Libraries Newsletter

Smart Libraries Newsletter delivers hard data and innovative insights about the world of library technology, every month.

Contributing Editor
Marshall Breeding
615-343-6094
marshall@breeding.com

Interim Editor
Tom Peters
816-228-6406
tpeters@tapinformation.com

Administrative Assistant
Judy Foley
800-545-2433, ext. 4272
312-280-4272
jfoley@ala.org

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OCLC Acquires EZproxy

In a move that continues its ongoing drive to accumulate a broad set of library automation components, OCLC has acquired EZproxy from Useful Utilities, a one-person company based in Peoria, Arizona, a suburb of Phoenix. The acquisition of this product gives OCLC control of an important piece of the infrastructure that connects individual libraries to the content and services on the Web.

This issue of *Smart Libraries Newsletter* describes what the EZproxy software does and why it is important, provides some information on the business acquisition, and offers some background and perspective.

An Essential Tool to Access Electronic Content

Proxy servers like EZproxy facilitate access to Web-based information. A typical academic library spends a significant portion of its collections budget on subscriptions to electronic content with the intent to provide access to that content to its users. Libraries generally need to enable access to their patrons not only when in the library but also from off-site locations. EZproxy was developed specifically to help libraries deliver access to subscribed electronic content to off-site patrons.

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When a publisher licenses its content to a library, it needs some mechanism to ensure that only the users of its subscribers gain access to the product and not the general public. Most publishers rely on IP address to regulate access, requiring that a library provide a list of the IP address ranges used within the organization it serves. This provides a convenient mechanism for on-campus or in-library access, but fails to accommodate off-site users. In order to serve off-site users, various types of proxy servers can function as an intermediary between a user and a remote service, effectively delivering to them a library IP address so that they can use these restricted resources. The key challenge lies in implementing a secure authentication system that ensures that access continues to be restricted to individuals associated with the organization with the minimum of inconvenience for library users.

Authentication

A crucial component of EZproxy involves authentication—the ability to determine whether an individual is associated with the institution and has the right to access a given resource. Providing access to on-site users can easily be accomplished by virtue of their IP address of their computer. The library must use some

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alternate authentication mechanism to allow access to off-site patrons.

Most academic institutions maintain some type of authentication service for its user community. Practically all colleges and universities offer an authentication service as part of the campus network to support access to courseware or virtual learning environments, e-mail systems, and the like. Such an authentication service might be implemented using protocols such as LDAP (Lightweight Directory Access Protocol), CAS (Central Authentication Service), RADIUS (Remote Authentication Dial-in User Service), Kerberos, or Athens. Many campuses are working toward single sign-on environments where all the network services available to the community work through a single centralized authentication service. Academic libraries increasingly rely on campus-wide authentication services rather than maintaining their own independent service.

Public libraries, however, usually don't have the luxury of authentication services provided by their higher-level organization and tend to rely on their integrated library system's patron database as the authority for identifying valid remote users. A key component of the ILS involves a database of registered library patrons, which is used for in-person circulation transactions as well as Web-based self-service features. Many of the ILS products provide an API (application programming interface) to allow it to function as an authentication service for other applications.

EZproxy was specifically designed for libraries and can take advantage of the authentication services available to both academic and public libraries. In addition to the major protocols used on campus networks, it can authenticate against library automation systems including Millennium from Innovative Interfaces, Web2 and HIP from Sirsi-Dynix, as well as the SIP protocol (Session Initiation Protocol) supported by all the major ILS products.

Integrating EZproxy into Library Content Delivery

In order to make access seamless to its users, the library can implement a few simple changes to integrate EZproxy into the various systems it uses to point its users to its electronic resources. To invoke EZproxy, the library will reformulate the URL for each of its resources to one that routes access through the proxy server. The links provided through the library's online catalog through the 856 field in the MARC record as well as any menus, link resolvers, finding aids, or other Web pages used to provide access to restricted content will prepend the EZproxy URL to the resource's native location. For example to access the resource located at http://tvnews.vanderbilt.edu, all access points would be adjusted to use http://proxy.library.vanderbilt.edu/login?url=http://tvnews.vanderbilt.edu. With this version of the URLs in place, as long as users go through the library's Web site, they will be able to access its resources from any location. EZproxy will detect whether they are off site and perform authentication as needed. In most cases prepending the EZproxy component of the URL can be accomplished programmatically without the need to change each one individually.

Useful Use Statistics

Given the large financial investments that libraries make in their collections of subscribed content, it is essential to measure the level of use each product receives. Content publishers routinely provide libraries with usage statistics. EZproxy also gives the library an additional means to monitor use counts through its logs. Libraries can use standard Web server log analysis tools to create reports that show the use of each product as mediated by the proxy server. These reports can be especially helpful in helping libraries measure the levels of use by patrons from off-campus locations versus those in the library or on campus.

Integration with eLearning Environments

True to the academic library orientation of EZproxy, work has been done to use the utility to help integrate library resources into the Blackboard course management system. A Blackboard building block integrates authentication mechanisms providing access to library resources listed in a course without the need for the dual logins that would otherwise be needed.

EZproxy Background

EZproxy was created by Chris Zagar, a librarian employed by the Maricopa Community College system in Arizona. The software was initially released in 1999 and by the time that it was acquired by OCLC had been purchased by over 2,400 libraries spanning sixty countries. While academic libraries comprise the majority of its users, it has also been sold to many public and special libraries. Zagar maintained a tight focus on the company, developing and supporting a single product. This focus has resulted in a reputation for highly reliable software with stellar support. The product has become the *de facto* proxy server used in academic libraries.

The cost of EZproxy has held steady at $495 since its initial release. At this price, EZproxy ranks as an extremely inexpensive, but essential, infrastructure component for libraries. Unlike most other software products, Useful Utilities offers perpetual free maintenance once an institution purchases the product, which includes the access to new releases of the software and technical support. Sales of EZproxy have generated revenue of just over $1 million since its initial release.

EZproxy is not open source software. Useful Utilities developed EZproxy using the traditional closed source licensing model, but with extremely liberal terms and at a very low price.

In 2006, LITA, the Library & Information Technology Association, a division of the American Library Association, awarded Zagar the Brett Butler Entrepreneurship Award in recognition of his work in creating EZproxy.

Transition Details

The purchase of EZproxy transfers to OCLC the ownership of the software and responsibility for support to its existing customers. OCLC indicates that it will honor the commitment made by Useful Utilities for ongoing technical support and software updates to libraries that have previously purchased EZproxy. The software continues to be available at the same price from OCLC as it was from Useful Utilities prior to its acquisition.

Zagar will join OCLC as a full-time consultant for at least the next year, taking a leave of absence from his position in the Maricopa Community College Libraries. In this role, he will help OCLC integrate EZproxy into WorldCat.org and further develop authentication services.

The acquisition of EZproxy by OCLC has sparked a few blog entries expressing concern about OCLC's new ownership of this ubiquitous software and suggesting the development of an open source alternative. (e.g., http://syntheticlibrarian.com/2008/01/12/ezproxy-to-be-acquired-by-oclc-time-for-an-open-source-alternative)

OCLC's supporters will interpret this move as a savvy strategy to strengthen the organization's ability to expand services related toWorldCat.org into libraries. Those skeptical of OCLC, including its commercial competitors, might view this acquisition with more concern. In either case, the acquisition of EZproxy may rank as a small financial maneuver for an organization with $235 million in annual revenue, but one that gives to OCLC a strategic technological advantage. Although the terms of the purchase have not yet been released, from a financial perspective, this transaction ranks far below OCLC's other recent acquisitions such as that of Sisis Informationssysteme ($4.5 million), Fretwell Downing Informatics ($8.9 million), and Openly Informatics ($1.95 million). As OCLC aims to develop new services through WorldCat, by acquiring EZproxy it gains ownership of a critical piece of infrastructure already positioned deeply within the networks of over 2,400 institutions.

—Marshall Breeding

[Note: EZproxy, developed by Useful Utilities, should not be confused with ezProxy offered by LavaSoftware, a utility that allows multiple computers on a small business or home network to share a single connection to the Internet.]

More Info. @:

Press Release:
http://www.oclc.org/news/releases/200690.htm

Useful Utilities Website:
http://www.usefulutilities.com

NewGenLib: An Open Source ILS for Libraries in the Developing World

NewGenLib, a library automation system developed in India, has recently joined the open source community. This product was introduced in 2003, primarily intended for libraries in the developing world. It has been adopted by about 122 libraries, primarily in India, but with some sites in Syria, Sudan, and Cambodia.

Two groups collaborate in the development and support of NewGenLib. Kesavan Institute of Information and Knowledge Management (KIIKM) is a non-profit professional trust that spearheads the project. This organization describes its primary goal as "acting as an independent, non-governmental centre for the study, training and advocacy in information and knowledge management." The key activities and funding for the trust relate primarily to NewGenLib, the development of a textbook on library automation, and on the creation of e-learning modules on library automation. Versus Solutions, a small software development company, performs the technical development of the software. Both organizations are located in Hyderabad, India.

The software has been distributed under the traditional commercial license model since 2003. In January 2008, the decision was made to offer the system as open source software under the GNU GPL (General Public License). According to L.J. Haravu, one of the three principals of KIIKM, the move to an open source model would result in wider adoption of the software. The organizations involved would move from a license-based business model to one based on service.

A new company was formed, Versus IT Services Pvt. Ltd., to provide service and support for the product as it moves into the open source realm. The relationship of this new company to NewGenLib closely resembles that of Liblime to Koha and Equinox Software to Evergreen.

NewGenLib, as an ILS tailored for libraries in developing countries, may not necessarily be of direct interest to libraries in our region. It does, however, show that the open source approach for library automation system has also made some advances internationally. – Marshall Breeding

More Info. @:

NewGenLib Website:
http://www.newgenlib.com

So, You Want to Use RFID in Your Library

If your library is considering implementing an RFID (Radio Frequency Identification) system, you may want to read a report released a few months ago by NISO (National Information Standards Organization) called "RFID in U.S. Libraries." The report is the result of the work of the NISO RFID Working Group, which included representatives from libraries, library vendors, publishers, RFID companies, and others.

Vinod Chachra from VTLS chaired the working group and presented an overview of the report during the meeting of the LITA RFID Interest Group at ALA Midwinter in Philadelphia in January. He emphasized that the report is a set of recommendations, not a set of standards.

In terms of the ideal outcome of this effort, the forward to the report notes, "Ideally, the best outcome would be one that achieves true interoperability, perhaps even at the international level, while protecting personal privacy, supporting advanced functionality, facilitating security, protecting against vandalism, and allowing the RFID tag to be used in the entire lifecycle of the book and other library materials."

There seems to be some aspect of human nature (the will to control or hoard, or perhaps simply greed) that often results in the creation of technology silos. As a new technology develops, proprietary silos crop up faster than crabgrass in the spring. The report notes, "Most RFID systems available are proprietary in some manner. Customers currently often purchase tags, readers, self check-out stations, and any other components from the same vendor. The proprietary nature of these systems increases costs, makes changing vendors expensive, results in hesitancy to purchase RFID technologies, and limits the real potential of RFID as a cross-institution platform for identification." In short, they become silos.

Interoperability, the wrecking ball for silos, is one of the key components to the growth and diffusion of RFID systems in libraries. Interoperability in the context of RFID systems has various facets. Interoperability between RFID systems available from different vendors would help libraries avoid falling into an RFID silo from which they cannot extricate themselves. Supply chain interoperability throughout the lifecycle of books would enable publishers, book jobbers, book stores, libraries, and various resale markets to use interoperable RFID systems. For example, RFID systems throughout all industries now run at low, high, ultra high, and microwave frequencies. Most RFID systems in libraries run in the high frequency range, with read ranges between eight and twenty inches.

Worldwide interoperability is another facet. Chachra noted that the Danes are using a fixed encoding model on their RFID tags, while the UK, Australia, and the US want a flexible encoding model. Of course, interoperability is a double-edged sword. The "application family identifier" (AFI) recommendations in the report would help avoid situations where a person carrying an RFID tagged library book would have that item erroneously read by RFID systems in bookstores, grocery stores, and discount retailers.

Privacy and security also are key components to the broad acceptance and use of RFID systems. The report contains separate sections on each of these topics. The report emphasizes that data about individuals never should be included in RFID tags attached to individual library items. The main recommendation about security is that the security method implemented should serve as a point of differentiation between the various RFID vendors. The report recommends that RFID tag systems comply with the 2005 ALA/BISG (Book Industry Study Group) Resolution on Radio Frequency Identification (RFID) Technology and Privacy Principles.

The potential for vandalism of RFID devices and systems is so multifaceted and pernicious that it warrants its own section in the report. Vandalism management is a form of risk management, involving its own set of values, policies, practices, costs, and tradeoffs. The report notes that currently most anti-vandalism strategies "… create difficulties in implementation and hinder interoperability, and place the library only a few steps ahead of increasingly sophisticated vandals." Modes of vandalism of RFID systems range from the physical and obvious—damaging or removing the tag from the item—to the digitally nefarious, such as modifying the data on tags or introducing an RFID virus into the system.

This report and other recent publications about RFID technologies do a good job of articulating the facets, risks, and opportunities of RFID systems. If your library is contemplating implementing an RFID system, you may do well to articulate early and reiterate often why you want or need an RFID system. As this report notes, in general the benefits of RFID systems include: reducing staff time spent in repetitive, manual processes such as checking materials out and in; improving the customer experience via fast and private self check-outs; improving the efficiency and accuracy of shelf-inventory projects; reducing the risk of repetitive motion injuries in staff; improving the movement of books throughout the supply and usage chain, etc. —Tom Peters

More Info. @:

NISO Report, "RFID in U.S. Libraries":
http://www.niso.org/standards/resources/RP-6-2008.pdf

ALA/BISG Resolution:
http://www.ala.org/ala/oif/statementspols/ifresolutions/rfidresolution.htm

Innovative SUSHI a la ARL

First there was a need. Back in the day (okay, it was the Nineties), when end-user-direct electronic resources subscribed to by libraries and library consortia were being rolled out at a frantic pace, quickly replacing librarian-mediated database search services, it was difficult to discern the amount of usage each e-resource was receiving by the patrons of each subscribing library. Such usage statistics could be understood as a form of return-on-investment for the subscribing libraries, and could help libraries make informed decisions during subscription renewal time and promotional campaigns. Back then, each e-resource subscription was basically a pig in a poke, with only anecdotal feedback as a way to gauge usage and impact.

The need begat stats. Vendors and aggregators of electronic resources quickly responded with a bewildering array of usage reports and report generators, often in a variety of interfaces, access methods, and file formats. As a result, intrepid local librarians had to spend many hours trying to interpret and aggregate the usage reports available from all the vendors of e-resources they were using. The usage statistics were there to be gleaned and interpreted, but often the local cost in terms of ongoing staff time to do this proved to be unworkable.

The stats begat standards. Six years ago the COUNTER (Counting Online Usage of Networked Electronic Resources) project launched, with a goal of serving the international community of librarians, publishers, and intermediaries involved in e-resources by "…setting standards that facilitate the recording and reporting of online usage statistics in a consistent, credible and compatible way." COUNTER began by issuing a Code of Practice for the generation and provision of usage statistics related to online journals and databases. Another Code of Practice covering usage statistics for online books and e-reference works was released in 2006.

The standards begat metrics and collaboration. Once the standards and codes of practice for e-resource usage statistics were in place, organizations and researchers began to collaboratively explore how to gain value from them. Reliable cost-per-use metrics, for example, began to crop up. COUNTER worked with JISC (Joint Information Systems Committee) in the UK and the UK Serials Group on studies and new metrics.

Collaboration begat SUSHI. COUNTER also worked with NISO (National Information Standards Organization) on the SUSHI Project (Standardized Usage Statistics Harvesting Initiative). The NISO SUSHI problem statement notes, "Participants from libraries, ILS vendors and online content providers have collaborated on developing a model that includes an automated request and response for usage statistics. The request and response mechanisms have been designed within a web services model." Via SUSHI, the collection, aggregation, and presentation of e-resource usage statistics from a variety of vendors can be automated, thus potentially soothing the addled pates of e-resource librarians everywhere.

ARL and Innovative Interfaces put SUSHI to work. Late in 2007 they announced that SUSHI had been integrated into the Innovative Electronic Resource Management (ERM) product. ERM can be fully integrated with Innovative's Millennium system, or it can function as a standalone product. The initial ARL research libraries to partake of SUSHI with ERM include Cornell, Dartmouth, the University of Arizona, Washington State University, Wayne State University, and the University of Washington. All told, approximately one-fourth of the ARL libraries use the Innovative ERM.

What this means is that these libraries now have immediate access with minimal work to aggregated usage statistics for their electronic resources that are reliable, standardized, and useful.

May SUSHI beget satisfaction, better use of limited financial resources, and a better mix of e-resources for users.

—Tom Peters

More Info. @:

COUNTER Web site:
http://www.projectcounter.org/

NISO SUSHI Web site:
http://www.niso.org/committees/SUSHI/SUSHI_comm.html

Innovative Press Release of Dec. 11, 2007:
http://www.iii.com/news/pr.php

Live Online Homework Help from TutorVista.com

How and to what extent libraries should support students working on their homework is an enduring service challenge fraught with policy issues and pedagogical concerns. Sometimes the line between having a librarian help a student pursue his or her homework assignments and actually doing some of the work is blurry.

Some libraries have decided to outsource all or part of this homework help service to third parties, such as Tutor.com. For example, some libraries may have online reference service questions roll over to Tutor.com when the local library's reference desk is closed. Many of these late night and early morning reference questions are related to some homework project being completed by individual students and groups.

In January TutorVista.com entered the library homework help market when it launched its Library Advantage Program. Founded in 2005, TutorVista.com began by focusing on the direct-to-parents market. For about $100 per month, the students in a subscribing family could have unlimited 24/7 online tutoring in all available subjects, which include Math, English, Chemistry, Biology, Physics, History, Writing, Calculus, Statistics, and many more.

The Library Advantage Program takes this to the institutional level. Pricing for the service depends on the results of several formulae, based on the student population served or the entire population served by the library. When I met with John Stuppy, President of TutorVista.com, at ALA Midwinter, he said that the lowest price that emerges from the various formulae often will be the one offered to the library. Discounts for funding-strapped libraries are available, too. TutorVista seems very interested in gaining libraries and other institutional customers.

The service offers on-demand homework help seven days a week from 3 to 11 p.m. local time. Students may access the service from within the library or at home. According to TutorVista.com's literature, this service is "…offered to students across grades 2 through 12, college students, and adults in school studying for courses, diplomas, or degrees."

The TutorVista.com interface enables the tutor, often an educator based in India, and the student to interact one-on-one in real time using voice-over-IP, text chatting, a shared whiteboard, and other interactive tools. Bundled with the service is a collection of instructional content that includes simulations, demonstrations, animations, videos, and worksheets. Students affiliated with subscribing libraries can access this supplemental content 24/7.

The interface that makes a remote TutorVista homework help session possible is in a state of transition. TutorVista had been using WebX, but has begun developing their own interface, TutorVistaNow, that will provide greater control over and integration of the interactive whiteboard, voice-over-IP and other components.

Detailed monthly reports help subscribing libraries better understand the usage and impact of this service on the students in the library's service population. The reports include information about the ages of the users of the service, the subject areas where homework help is sought, the total number of library patrons who used the service, the average time for the sessions, and some indicators of customer satisfaction.

Outsourcing homework help to a company such as Tutor.com or TutorVista.com may raise some ethical concerns, turf issues (e.g., Why don't school systems offer these types of services?), and quality assurance issues for librarians and parents, but the need for institutionalized, online homework assistance seems to be strong and growing.

—Tom Peters

More Info. @:
TutorVista.com's Library Advantage Program:
http://www.tutorvista.com/libraries

Something Wikia This Way Comes

First, the Wikipedia challenged the notion of how to construct and deliver an encyclopedia. Now comes Wikia Search, which seeks to redefine how search engines operate. The core issue, it seems, is whether the future of search engine development should be hitched to existing, secretive, proprietary, automated search algorithms, or hitched to something else, such as a collaborative, human-based system that seeks to capitalize on the wisdom of crowds and the aggregated experiences of users of search engines. The search engine market is very tough and competitive. Virtue may get a bloodied nose.

The public alpha version of Wikia Search, a free and open source Web search engine, was released in January 2008. Wikia Search is from Wikia, Inc., a for-profit company founded by Jimmy Wales and Angela Beesley. Wales was one of the co-founders of Wikipedia, but Wikia, Inc. has no official relationship with Wikimedia Foundation, the not-for-profit organization that now runs Wikipedia.

The initial public alpha version was almost universally panned. While many people may like the philosophy behind Wikia Search, ultimately the success of a search engine rides on the search results produced. In a quote in an article that appeared in the January 7 *New York Times*, Wales admitted that Wikia Search is not yet ready to be a Google-killer. But he hopes that Wikia Search, like the tortoise racing the hare, will win out in the long run.

Wales predicts that Wikia Search could at least put a small dent in the Web search market shares currently held by Google and Yahoo. If the folks behind Wikia Search could capture five percent of all Web searches, they would be happy. Google currently holds a market share somewhere in the neighborhood of 50 and 75 percent, depending on who's doing the counting and how.

Whereas Google, Yahoo, Ask, and other search engines guard their search algorithms as trade secrets and one of the key assets of these search engine companies, Wales argues that searching the Web should be "open, transparent, participatory, and democratic." Search algorithms are like upstream editors that ultimately determine what you will see and the order in which you will see it. The Wikia Search algorithm, which will do the heavy lifting of crawling and indexing the web before human users perform the nuanced fine-tuning, will be open source software. Wikia, Inc. is a for-profit company. Apparently they plan to use advertisements as their primary source of revenue —not very innovative compared to what the major search engines already do.

The rough and tumble days when the top search engine changed every few months or weeks seem to be behind us now. Any new search engine needs to work hard to achieve viability and a single-digit market share. Wales is betting the farm (or the farm of some venture capitalist) that if enough people volunteer to participate in and contribute to Wikia Search, over time humans can do a better job of determining the relevance of a website than even the most high-powered, proto-intelligent search algorithm.

—Tom Peters

More Info. @:

Wikia Search:
http://www.wikia.com/wiki/Wikia

January 7 NY Times Article:
http://www.nytimes.com/2008/01/07/technology/07wiki.html