ISQ

INFORMATION
STANDARDS QUARTERLY

SPECIAL ANNIVERSARY EDITION: PART TWO

THE DAISY STANDARD:
MAINSTREAMING
ACCESSIBILITY

LINKING TO LIBRARY
RECORDS WITH OPENURL
AND OPENBOOK

IN SEARCH OF BEST
PRACTICES FOR
PRESENTATION OF
E-JOURNALS

WHAT IS THE
FUTURE OF VIDEO
AND STANDARDS?

STREAMLINING BOOK
METADATA WORKFLOW

NISO
How the information world
CONNECTS

NISO AT ALA 2009

JULY 9 – 15 • CHICAGO, ILLINOIS

VISIT US at Booth #931

For more details on these events and other standards-related sessions at ALA 2009, visit: www.niso.org/news/events/2009/ala09/.

NISO Architecture Committee Meeting (invite only)
THURSDAY, JULY 9 • 2:00 – 5:00 P.M.

Quadrangle Club, University of Chicago
1155 E. 57th Street • Chicago, Illinois 60637

NISO/BISG Forum: The Changing Standards Landscape for E-Books
FRIDAY, JULY 10 • 12:30 – 4:00 P.M.

Hyatt Regency Chicago, Columbus Hall E/F
Gold Level, East Tower
Free but please RSVP at www.niso.org/contact

NISO AVIAC Meeting
FRIDAY, JULY 10 • 4:00 – 5:00 P.M.

Sheraton Chicago, Mississippi Room
*Automation Vendors Information Advisory Committee
Open meeting; no registration is required.*

NISO Update
SUNDAY, JULY 12 • 1:30 – 3:00 P.M.

McCormick Place West 193b
Hear about 2009 planning, news from the NISO Board, and emerging initiatives to look forward to from NISO's Architecture Committee and the three Topic Committees: Business Information, Content & Collection Management, and Discovery to Delivery.

Z39.7 Standing Committee Meeting
MONDAY, JULY 13 • 9:00 A.M. – 12:00 P.M.

Chicago Hilton, Conference Room 4G
This is an open meeting of the Standing Committee to review any proposed changes to ANSI/NISO Z39.7-2004: Information Services and Use: Metrics & statistics for libraries and information providers — Data Dictionary.

ISQ

NISO
How the information world CONNECTS

INFORMATION STANDARDS QUARTERLY (ISQ) is a publication by the National Information Standards Organization (NISO). ISQ is NISO's print and electronic magazine for communicating standards-based technology and best practices in library, publishing, and information technology, particularly where these three areas overlap. ISQ reports both on the progress of active developments and also on implementations, case studies, and best practices that show potentially replicable efforts.

2009 AD RATES	1 ISSUE	2–3 ISSUES	4 ISSUES
Full page (8.5"x 11")	$375	$350	$325
Half page (4.25" x 5.5")	$250	$225	$200
Back cover (8.5"x 11")	$700	$600	$550
Inside Cover Front (8.5"x 11")	$500	$450	$400
Inside Cover Back (8.5"x 11")	$500	$450	$400

For more information on advertising, visit www.niso.org/publications/isq

CONTENTS

CONNECT
TO HAVE AN IMPACT

WHY JOIN NISO

◼ As a NISO member, YOU shape the agenda.

Digital content is at the heart of your operations, so you want it organized, accessible, searchable, protected, and preserved. This is what NISO technical committees and working groups ensure. NISO employs a community approach to solve some of the most vexing issues in our community. As a voting member, you help determine the priorities of projects that NISO undertakes and ensure that consensus is reached on proposed standards.

◼ Investment in NISO membership yields returns to YOUR bottom line.

Whether you define your bottom line in terms of profits or in service to library patrons, NISO gives you the opportunities and information you need to **gain a competitive advantage**. You gain it through shaping the work of technical committees and interacting with people who influence changes and trends in the community. You have access early in the development stage of upcoming national and international standards that can improve your services and make your operations more efficient. You can participate in draft trials of standards that allow you to be an early implementer.

◼ Through NISO, you connect with the people who mean the most to YOUR BUSINESS.

NISO is the only organization that focuses on the intersection of libraries, publishers, and information services vendors. If you're a vendor, you can develop standards and best practices shoulder-to-shoulder with customers who tell you what they need. If you're a library, you work with service providers who learn from your expertise, respond to your challenges, and explore new solutions with you. If you're a publisher or content provider, you can work with both vendors and librarians to ensure your content can have the widest accessibility and use with appropriate intellectual property protection. **You connect with decision-makers who make your business better.** And it all happens in neutral settings where all the players are on equal footing. NISO members get discounts for attending educational forums and webinars where community members showcase their successes and you can network in small, informal settings.

◼ NISO enhances your image in the community.

By crediting members who are integral to developing standards and best practices, highlighting members' expertise through webinars and forums, and providing writing opportunities in NISO publications, **NISO makes it clear that member organizations are leaders in our information community.**

Your organization needs to be a driver, not a follower, of information services and technology.
Our members are THERE. They contribute their VOICE. They make a DIFFERENCE.

Todd
Carpenter

FROM THE PUBLISHER

Standards work is often a mix of pushing and pulling. There are pain points and inefficiencies in the industry that we all recognize, but we are at a loss to find solutions or we can't solve the problem without support from others. In some areas, there are problems that require research and thought in order to understand the variety of issues that encompass a problem. In this issue, we take a look at two of those problems.

The first is book metadata and its exchange and flow through our community from publisher to distributors and wholesalers, and eventually through booksellers and libraries to end users. Accurate metadata is the grease that smooths the wheels of exchange of information and without it discovery, delivery, and management of information begin to fail. One recommendation of the Mellon Foundation-funded Thought Leader meeting on Digital Libraries and Collections held last year was that NISO should undertake efforts to improve publisher-supplied metadata. OCLC was also looking into this issue and hosted a symposium on metadata for publishers and libraries in March of this year, which is reported in *ISQ* (p. 40). Before we undertook serious development efforts in this space, it made sense to first scope the problems, the investments, and the inefficiencies in the supply chain and quantify the systemic costs to poor metadata. With the support and engagement of OCLC, we've taken the first step by commissioning a white paper by JUDY LUTHER to examine these challenges, which has been extracted for *ISQ* (p. 33). The final version of the full white paper should be available shortly on the NISO website. Working in tandem with OCLC, and with others in the community, there is great potential for several new initiatives that could improve the flow of metadata. In a way, we're pushing the community to address big challenges that are known to exist, and encouraging creative approaches to solutions.

The second is the vexing issue of serials titles and their changes over time, particularly online, which is described in the article on the search for best practices for online representation of titles (p. 18). Here we have a pull as members of the community ask NISO to help with a solution. A number of new publishers have signed up to the UKSG *TRANSFER Code of Practice* (p. 45) and NFAIS has released a best practice on article-by-article publishing (p. 44), both of which touch on related journal issues. In many ways, the journal title problem and the issues surrounding metadata exchange are similar. Both require us to find ways to improve the structure and format of information, using consistent and common processes that have feedback loops to correct information as it changes over time.

Overall, we have been extremely pleased with the reaction to the new look and design of ISQ this year. A number of people have commented to us that the expanded content coverage, increased size, and improved design have greatly impressed them. It has been a team project, led by CYNTHIA HODGSON and JAY DATEMA along with input from the entire ISQ Editorial Board, and has resulted in a valuable resource for the information distribution and management community. I'd like to congratulate them on a job well done and I look forward to many more enlightening and engaging issues. We continue to welcome feedback and encourage you to drop us a note describing what you like about the magazine or would like to see in future issues of ISQ.

Todd Carpenter | *NISO Managing Director and ISQ Publisher*

2009 NISO EVENTS

NISO Open Teleconferences

Join NISO on these free conference calls to learn about new projects within NISO as well as to provide the organization with feedback and input on areas where NISO ought to be engaged. NISO teleconferences are held from 3-4 p.m. (eastern) on the second Monday of each month (excepting July and September). To join, simply dial 877-375-2160 and enter the code: 17800743.

NISO—the only organization that focuses on the intersection of libraries, publishers, and information services vendors—holds educational programs on topics of interest to the community throughout the year.

AUGUST 2009
August 12 - NISO Webinar: E-Books: A Rapidly Evolving Marketplace

SEPTEMBER 2009
September 9 - NISO Webinar: E-Resources Licensing: The Good, The Bad, The Ugly
Includes discussion of NISO's Shared E-Resources Understanding (SERU)

OCTOBER 2009
October 12–13 - Forum: Library Resource Management Systems | *Boston, MA*
October 14 - NISO Webinar: Bibliographic Control Alphabet Soup: AACR to RDA and evolution of MARC

NOVEMBER 2009
November 11 - NISO Webinar: Data, Data Everywhere: Migration and System Population Practices

DECEMBER 2009
December 9 - NISO Webinar: ONIX for Publication Licenses: Adding Structure to Legalese
Includes an update on the Electronic Resource Management Initiative (ERMI)

ISQ CALL FOR CONTRIBUTIONS

E-mail the Content Editor (editor@niso.org) with proposals prior to submitting full manuscripts.

ISQ has an international readership and we encourage submissions from other countries (in English).

Information Standards Quarterly (*ISQ*) is NISO's print and electronic magazine for communicating standards-based technology and best practices in library, publishing, and information technology, particularly where these three areas overlap. *ISQ* reports both on the progress of active developments and also on implementations, case studies, and best practices that show potentially replicable efforts.

The editors of *ISQ* are seeking contributions from the NISO and general information communities to future issues of *ISQ*. We are looking for features, conference reports, or opinion pieces. The standards / best practices covered in ISQ are not limited to those produced by NISO. Discussions of formal and defacto standards and best practices of any organization in relevant areas of library, publishing, and information technology are candidates for inclusion.

FOR MORE INFORMATION, VISIT: www.niso.org/publications/isq/contribute/

NISO CELEBRATES
70 YEARS

SPECIAL ANNIVERSARY EDITION: **PART TWO**

The National Information Standards Organization turns 70 this year and its publication, Information Standards Quarterly (ISQ) has just passed its 20th birthday. In the first 2009 issue of ISQ, we shared some milestones in NISO's history from the inception of Committee Z39 in 1939 to its ratification in 1979-80 as a formal membership-supported standards development organization. In this issue, we continue the timeline from NISO's incorporation in 1982 through 1997 when the ISO Technical Committee 46, for which NISO is the U.S. administrator, reached its 50 year anniversary. In the next issue of ISQ, we will bring the milestone timeline to the present day and follow-up in issue #4 with a look ahead to NISO's future. ▶

1982

American National Standards Committee Z39 is incorporated in the District of Columbia. Pat Harris becomes Executive Director of NISO.

1986

NISO archives are established at the University of Maryland, College Park.

1988

Z39.50, *Information Retrieval Service Definition and Protocol Specification*, is published.

JANUARY
1989

Information Standards Quarterly replaces *Voice of Z39*.

NISO hosts 23rd plenary meeting of ISO TC 46.

1987

NISO is accredited by the American National Standards Institute as an "Accredited Standards Developer."

1984

Z39's name is officially changed to National Information Standards Organization.

z39.48, *Permanence of Paper for Printed Library Materials*, is published.

MARCH
1989

NISO is appointed by ANSI as the U.S. Technical Advisory Group (TAG) Administrator for ISO TC 46, Information and Documentation.

JANUARY
1990

ISQ Feature Article:
*Where Libraries and
the Internet Meet.*

OCTOBER
1990

First NISO Fellows
named: Henriette
Avram, Patricia Berger,
and Sandra K. Paul.

OCTOBER
1991

Pat Ensor becomes
new ISQ editor.

1995

First Technical Report
published, TR01,
Environmental Guidelines
for the Storage of Paper
Records.
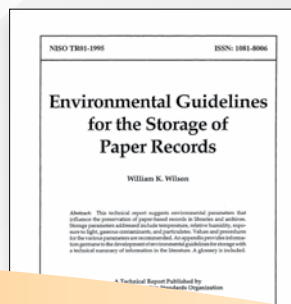
1982–1997

Look for the continuation of the
timeline in the upcoming issues of ISQ.
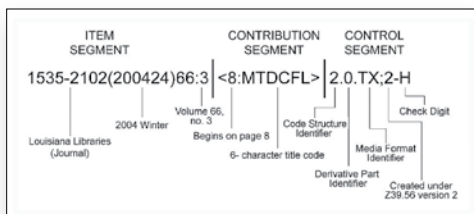
1991

Z30.56, *Serial Item and
Contribution Identifier*
(SICI) is published.

1997

ISQ feature article:
*The First 50 years of ISO
TC 46: 1947–1997.*

The DAISY Standard for Digital Talking Books:

mainstreaming
ACCESSIBILITY

VARJU LUCENO AND MOLLY STOCKDALE

The Digital Accessible Information System (DAISY) Standard (officially ANSI/NISO Z39.86, *Specifications for the Digital Talking Book*) has revolutionized the reading experience for people with print disabilities around the globe. DAISY is the world's most widely adopted and the most advanced access technology for reading in the world.

THE DAISY CONSORTIUM, consisting of approximately 100 organizations and corporations representing 35 different countries, was formed in 1996 to develop and promote international standards and technologies which enable equal access to information and knowledge by all people with print disabilities and which also benefit the wider community.

The DAISY standard has come a long way since its original 1994 proprietary version that introduced some document structuring to "talking books" that would allow easier navigation by the user. Now on version 3.0, the DAISY standard is an open standard supporting multimedia with broad applications for improved access to text that appeals to the mainstream as well as those with print disabilities.

Accessible Information

The evolution of accessible information from audiotapes to DAISY multimedia is much like the evolution of the written word from papyrus scrolls to bound books. Like a scroll, an audiotape must be read in one direction from beginning to end. Skipping around in the text uses an imprecise mechanism of forwarding or rewinding the tape or scroll. To record an entire book in this medium requires multiple tapes or scrolls that can easily be mis-ordered or misplaced. The bound book revolutionized reading by

offering all the information in a format that is easily held or stored. The reader can flip through pages quickly rather than unwinding or rewinding scrolled paper.

DAISY multimedia offers the same advantages. Books that once had to be stored on several audiotapes can now be recorded on a single compact disc, flash drive, or memory card. Like flipping through the pages of a book, DAISY lets the reader search and navigate a publication by word, paragraph, or page number. Navigable DAISY—content that has electronic text available, either with or without audio—permits readers to examine the spelling of words or search the text, using a software player on a computer.

By synchronizing audio, text, and soon, video, DAISY multimedia can address the needs of individuals who benefit from different types of learning styles. DAISY hardware players, much like CD players or MP3 players, can be of great assistance to auditory learners who benefit from audio playback, whether presented through a text-to-speech feature or through human narration. Full-text, full-audio DAISY books synchronize the audio playback with written text displayed on a computer screen to the benefit of visual learners. Easy navigation of information produced in DAISY offers tactile/kinetic learners the opportunity to explore

documents and interact with information in a way that holds their attention and improves their learning.

This flexibility in meeting the needs of students with various abilities and learning styles is reflected in the fact that DAISY technology serves as the foundation for the National Instructional Materials Accessibility Standard (NIMAS) file format for digital versions of textbooks and other instructional materials.

Extension of the Standard

In 2005, DAISY 3 (ANSI/NISO Z39.86-2005, *Specifications for the Digital Talking Book*) was approved. This version of DAISY allows for modular extensions to the standard. The first extension to be successfully developed and implemented— approved by the DAISY Board of Directors in February 2007— was MathML in DAISY, which allows equations and other mathematical information to be presented in a structured accessible format rather than as an inaccessible image. To develop this extension, the DAISY Consortium formed a working group to specify how math could be incorporated into DAISY. The W3C MathML standard was chosen because it is an XML format like DAISY. In addition, MathML is specifically designed for universal access.

DAISY Tools for Production, Distribution, and Playback of Accessible Multimedia

In addition to the ongoing maintenance and revision of the standard, the DAISY Consortium is expanding its reach through the development of open source software for production and playback of DAISY content. DAISY development projects include:

✔ DAISY Pipeline

A cross-platform, open source utility that transforms documents from a variety of file formats into accessible multimedia formats for people unable to read print due to a visual, physical, perceptual, developmental, cognitive, or learning disability. The DAISY Pipeline is designed to be used in both server-side and desktop environments. An accessible desktop user interface is provided with full support for language localization.

✔ Obi

An audio authoring tool that allows users to produce rich, yet accessible Digital Talking Books. Obi brings the benefits of DAISY technology to a broader range of consumers, turning users into DAISY publishers.

✔ DAISY Online Delivery

A protocol supporting the online delivery of DAISY content from organizations providing accessible library services to those they serve. By incorporating well-established industry standards, the protocol will ensure maximum interoperability across all implementations of DAISY online distribution.

✔ AMIS DAISY Player

A software application that enables readers to navigate sections, pages, and individual phrases of a book. AMIS has been localized in more than a dozen different languages with additional language packs in development.

DAISY Collaborations

The DAISY Consortium embraces the principles of collaboration and transparency that define open source and open standards development. With its member organizations literally spanning the globe, the DAISY Consortium is able to build project teams of talented administrators, software designers, and programmers that are representative of the global population served by DAISY. Collaborative efforts result in standards and software that reflect the needs of the DAISY community while remaining flexible enough for adaptation and use by others.

For example, as a result of three separate efforts, "Save as DAISY" functionality has been integrated into three popular desktop publishing/word processing tools. DAISY worked with Microsoft Corp. and Sonata Software Ltd. to create Save as DAISY for Microsoft Word. This free, downloadable plug-in converts Word documents into accessible DAISY format and works with Word XP, Word 2003, and Word 2007. The award-winning odt2dtbook is an open source tool that converts Open Office documents into DAISY format. In October 2008, Adobe released InDesign CS4, highlighting its new features including a "Save as DTBook" (aka DAISY XML) option.

Code Factory's Mobile DAISY Player is a full-featured DAISY/NISO reader for Symbian/S60-based mobile phones, allowing users to take books, newspapers, and other text content with them to read on the go. Mobile DAISY Player works with standard mobile devices without the need for expensive dedicated hardware.

It is also noteworthy that the International Digital Publishing Forum (IDPF) adopted the DAISY XML vocabulary and DAISY navigation model for their ePub standards for e-books.

The DAISY Consortium is also working with the International Federation of Library Associations (IFLA) to improve the availability of copyrighted material across international borders. In addition, the staff and Members of the DAISY Consortium participate on many national and international committees including the World Wide Web Consortium's Web Accessibility Initiative (W3C-WAI), the World Blind Union (WBU) Executive Committee, and the United Nations Global Alliance for ICT and Development (UN-GAID) Strategy Council.

Future Directions for DAISY

The DAISY Consortium recently completed a rigorous program of requirements gathering for the next revision of the DAISY Standard, a project now underway in conjunction with NISO. The result will enable an unparalleled user experience, by improving the existing model for authoring and consumption of accessible rich media documents, and also by facilitating the creation and distribution of rich interactive presentations. Publishers and libraries serving persons with disabilities are looking for ways to reach the

Collaborative efforts result in standards and software that reflect the needs of the DAISY community while remaining flexible enough for adaptation and use by others.

largest market, and those markets will never be reached by a single format. Instead, with the revised DAISY Standard, publishers will have a distribution standard that enables the widest variety of high-quality product and delivery options. The options the publishers choose are completely up to them and fall under a single standard that embraces flexible distribution of multiple formats. Similarly, no single XML vocabulary will ever dominate the world; information is too broad to be captured in a single XML language. The revised DAISY Standard will allow publishers the flexibility to choose from multiple supported XML languages while ensuring compatibility for users.

The DAISY Consortium is currently conducting a two-year development project to produce a rich media authoring tool to synchronize audio, text, and images. Called "Tobi" by its development team, this software will act as a reference implementation of the next revision of the DAISY Standard, providing publishers and technology developers with concrete examples of how they can adopt and adapt DAISY technology to improve reading experiences for people with print disabilities around the globe. One simple but powerful example of how Tobi can provide a richer reading experience is the synchronization of human narration with text. When reading a poem, Tobi will add rhythm to rhyme, allowing a

reader with print disabilities to experience the nuance and cadence of poetry rather than as a series of words presented by the electronic voice of text to speech software.

The DAISY Consortium is committed to create standards and technology to benefit not only people with disabilities, but the wider community as well. Whether through development of its own suite of tools, or in partnership with other software companies and designers, the DAISY Consortium asks that accessibility be more than an afterthought. By promoting the principles of universal design, the DAISY Consortium is creating an environment where the production, distribution, and playback of accessible information are widely, and immediately, available. These are the first steps in achieving the Consortium's vision of a world where people with print disabilities have equal access to information and knowledge without delay or additional expense. |FE| doi: 10.3789/isqv21n2.200904

VARJU LUCENO <varju.luceno@gmail.com> is Communications and Marketing Specialist with the DAISY Consortium.

MOLLY STOCKDALE <molllystockdale1@gmail.com> is a DAISY Consortium Grant Writer. The DAISY Consortium is the officially appointed Maintenance Agency of the ANSI/NISO Z39.86, Digital Talking Book standard.

RELEVANT LINKS

DAISY Consortium
www.daisy.org/

DAISY/NISO Standard
PDF version: www.niso.org/standards/z39-86-2005/
HTML version: www.niso.org/standards/resources/Z39-86-2005.html

AMIS DAISY Player
www.daisy.org/projects/amis

DAISY Online Delivery
www.daisy.org/projects/daisy-online-delivery/

DAISY Pipeline
www.daisy.org/projects/pipeline

DAISY Revision Wiki
www.digitaltalkingbook.com/zw/Main_Page

ePub
www.idpf.org/specs.htm

MathML in DAISY
www.daisy.org/projects/mathml/

Mobile DAISY Player
www.daisy.org/tools/tools.php?id=116

National Instructional Materials Accessibility Standard (NIMAS)
nimas.cast.org/

Obi
www.daisy.org/projects/obi

Save as DAISY for Microsoft Word
www.daisy.org/projects/save-as-daisy-microsoft/

Save as DAISY for Open Office (odt2dtbook)
extensions.services.openoffice.org/download/1839

Save as DTBook (DAISY XML)
www.daisy.org/tools/tools.php?id=128

Tobi
www.daisy.org/projects/tobi/

JOHN MIEDEMA

LINKING TO
LIBRARY
RECORDS

with OpenURL using the OpenBook WordPress Plug-in

Many people are interested in providing book cover images and bibliographic data on their webpages. Librarians and book bloggers use this data to enhance their book reviews and discussions. A number of book widgets and application programming interfaces (APIs) exist for obtaining this data from commercial book sources. OpenBook is a software module that provides a simple method of obtaining rich book data from Open Library, an open source project of the non-profit Internet Archive.

OPENBOOK IS A PHP PLUG-IN for WordPress, an open source web content management platform popular among librarians and book bloggers. WordPress users do not need any programming knowledge to use the plug-in. Once OpenBook is installed, the user simply inserts a "shortcode" with an ISBN or other book identifier into a webpage. The plug-in detects the shortcode and replaces it with a book cover image, title, author, and publisher obtained from Open Library using their API. The book data is formatted in HTML and displayed on the web page.

The first version of OpenBook was developed to meet the immediate needs of its developer and other web users who write about books and wished to display bibliographic data. The plug-in was received enthusiastically and has been downloaded an average of twenty times per week for two years, ranking it in the top quarter of WordPress plug-ins. OpenBook has had several enhancements, but there has been one recurring request from librarians who use WordPress for their library websites: the ability to link back to their library catalogs. One common use case is that of a librarian who maintains a blog to highlight collection items. In this case, the librarian would like to link the highlighted item back to its record in her particular library catalog so the patron can view the item's availability and check out the item.

As a result of these requests, one of the enhancements to the first version of OpenBook was the addition of a "Find in a Library" link to book records in OCLC's WorldCat. This enhancement provides an indirect link to library records. A second major version of OpenBook has been developed that provides a direct link to a specific library's records using OpenURL technology. This article provides a first look at how OpenURL is implemented in OpenBook.

OpenURL and COinS

OpenURL was originally introduced by Herbert van de Sompel and Patrick Hochstenbach as a way to provide links from citations to a library's licensed electronic journal articles. It has since been generalized for other applications and published as the standard, ANSI/NISO Z39.88, *The OpenURL Framework for Context-Sensitive Services*. Implementing the OpenURL standard requires three things: a ContextObject with metadata, an OpenURL link, and an OpenURL resolver.
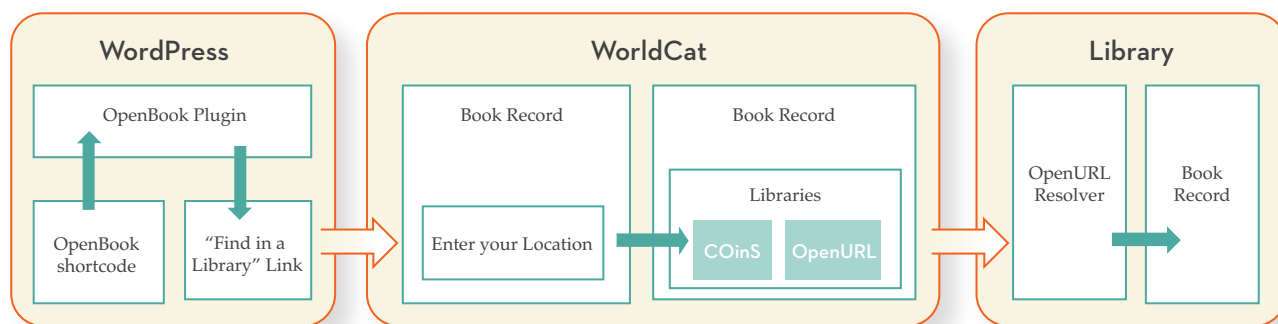
Figure 1: OpenBook Implementation of OpenURL via WorldCat

ContextObjects in Spans (COinS) is a standard for embedding bibliographic metadata in a hidden HTML span element. One significant development for OpenBook was the addition of COinS support. While COinS can refer to any information resource, the focus of OpenBook was the book format, and its COinS were created to reflect that resource type. A COinS element is created for each book or other item and can then be detected and used by other applications. OpenBook already had access to a rich supply of data from Open Library, so adding COinS was a small matter of formatting it according to the latest standard.

The original motive for adding COinS to OpenBook was to enable integration with Zotero, an open source Firefox extension that stores bibliographic data in a user's citation database. Zotero users who visit OpenBook pages now find an icon of a book or folder in the Firefox address bar. When the user clicks on the icon, a title appears for each instance of OpenBook, and the users can select which citations to save to their databases.

Implementing COinS took OpenBook one step forward in linking to library records. It also required an OpenURL, a Uniform Resource Locator (URL) that contains both the metadata found in COinS and a pointer to an OpenURL resolver at a library's website. The OpenURL is typically found as a hypertext link on a webpage. Upon clicking the

link, a user is transferred to the library's resolver page where the resolver has parsed the metadata and listed links to matching library resources. The listed contents depend on the library; for books the resolver page typically provides information about the requested item's availability and physical location. In this way, the OpenURL standard can be used to fulfill the librarian's request for linking OpenBook to a particular library's book records.

OpenBook Version 1: Linking to Library Records via WorldCat

OCLC has implemented the OpenURL standard in WorldCat, a union catalog of the collections of member libraries. WorldCat provides a standard URL structure to provide links to records in its database. In a first effort to link to library records, OpenBook was enhanced with a "Find in a Library" link to the WorldCat. The implementation is depicted in Figure 1.

When an OpenBook user inserted a shortcode with an ISBN in WordPress, the plug-in replaced it with the usual book data and then inserted an additional "Find in a Library" link to the WorldCat record. When a visitor clicked the link, he or she would be transferred to the WorldCat site. To get to specific library records, the visitor would be required to enter a regional locator such as a zip or postal code. WorldCat

Figure 2: OpenBook's Direct Implementation of OpenURL
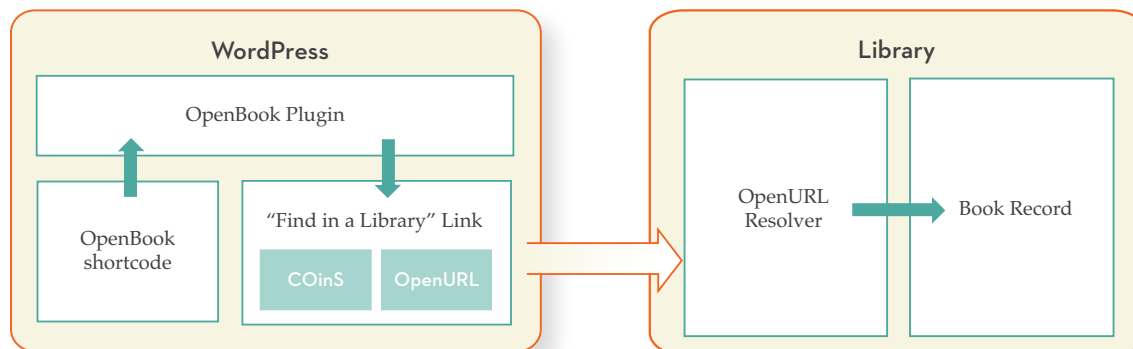
then lists a number of libraries that are considered close to the locator. Each library has an OpenURL with COinS for the book, and a pointer to the library's OpenURL resolver. By clicking on one of these OpenURLs, the visitor can then view the selected library's book record.

The main advantage of the WorldCat solution was ease of implementation. It is easy to construct a WorldCat link when provided with an ISBN (or ISSN or OCLC number). There are also several drawbacks to this solution. Rather than accessing a library directly, OpenBook visitors have to go through the additional steps of navigating to the WorldCat catalog and locating a library. A more significant problem is that WorldCat only lists holdings for member libraries who have purchased an OCLC FirstSearch package. This limitation excludes many local libraries. It is not unusual to perform a WorldCat search only to find that the recommended library is hundreds of miles away. These shortcomings render the WorldCat solution untenable for many librarians who want to link users directly to their library catalogs.

OpenURL via a Browser Plug-in

Another approach to accessing library records directly from the web is the implementation of OpenURLs in a browser plug-in. OCLC provides the OpenURL Referrer, a simple browser plug-in that can be configured with the OpenURL resolver for a library of the user's choice. The resolver address can often be found in WorldCat's registry of libraries. When the user navigates the web, the plug-in detects instances of COinS, then assembles and displays an OpenURL for the configured library. LibX is an open source product with more advanced functions integrated into the browser, such as library searching and off-campus proxy support. When COinS was added to OpenBook it became suited to the use of these browser plug-ins.

The browser plug-in approach offers a way to link directly to library resources without navigating to an intermediary site like WorldCat. Even so, it is not an ideal solution for librarians seeking to link back to their library catalogs. The browser

> The first version of OpenBook was developed to meet the immediate needs of its developer and other web users who write about books and wished to display bibliographic data.

plug-in is a client-side solution, meaning that the burden of the work falls to the user. The OpenURL is only available to web users who are aware of the plug-in, and have taken the time to install and configure it. This approach is fine for more advanced users who prefer to control their information experience, but is less suited to others. OpenBook, by contrast, is a server-side solution, with the programming handled by OpenBook on a web server. It is meant to be a simple solution requiring little effort on the part of the librarian or the library patron.

It is recognized that a directly configured OpenURL may provide less information to a visitor of a particular library's website than the WorldCat solution, which lists the availability of an item in a number of libraries. If the item is unavailable in the specifically configured library's collection, a non-member of the library has few options. However, a member of the library may be able to request an interlibrary loan, perhaps using the RACER link provided on many OpenURL resolver pages to electronically request interlibrary loans. This latter use case is the one envisioned by most librarians interested in using OpenBook.

OCLC provides the OpenURL Referrer, a simple browser plug-in that can be configured with the OpenURL resolver for a library of the user's choice. The plug-in detects instances of COinS, then assembles and displays an OpenURL for the configured library.
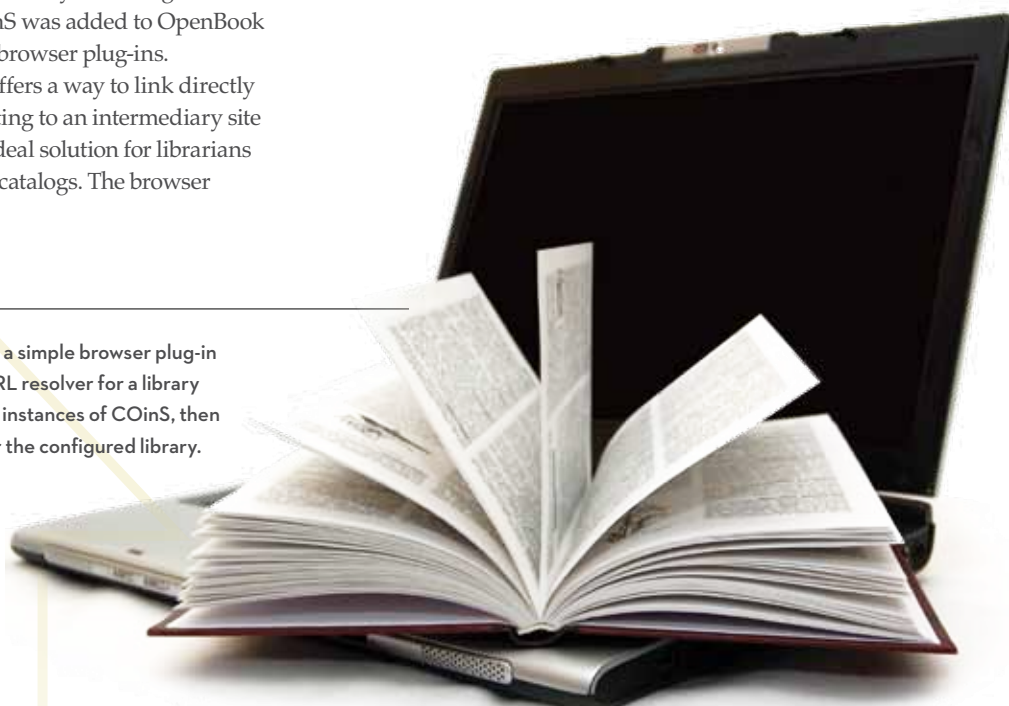
RELEVANT LINKS

COinS
ocoins.info

CUFTS
cufts2.lib.sfu.ca

LibX
www.libx.org

OpenBook
wordpress.org/extend/plugins/
openbook-book-data

OpenLibrary
openlibrary.org

OpenURL Referrer
nj.oclc.org/openurlref

OpenURL standard (Z39.88)
www.niso.org/standards/z39-88-2004/

WordPress for Libraries Wiki
wp4lib.bluwiki.com

WorldCat
www.worldcat.org

WorldCat Registry
www.worldcat.org/registry/Institutions

Zotero
www.zotero.org

JOHN MIEDEMA <openbook@johnmiedema.ca> is an IT Specialist at IBM with expertise in web application architecture and development. He is a part-time student in the Master of Library and Information Science program at the University of Western Ontario, where he pursues his interests in reading research and open source for libraries. His recent book, *Slow Reading*, is available from Litwin Books.

OpenBook Version 2.0: Direct OpenURLs

The swell of interest in OpenBook and thoughtful feedback from users has inspired a line-by-line rewrite of OpenBook. This second version of OpenBook includes many new features, most significantly the much requested feature by librarians to link from instances of OpenBook back to their particular library's records. This implementation of OpenURL is depicted in Figure 2.

The WordPress platform provides a mechanism for adding administrative panels so that plug-in users can configure options. OpenBook Version 2.0 adds an administrative panel where a user can configure a library's OpenURL resolver. As before, when an OpenBook user inserts a shortcode with an ISBN in WordPress, the plug-in replaces it with book data from Open Library, then inserts a "Find in a Library" link. If an OpenURL resolver has been configured, OpenBook will create a link with COinS bibliographic metadata and point to the resolver. Users will also be able to modify the link text to their liking, e.g., "Find in the University of Western Ontario Library." When a visitor clicks the link, he or she is transferred directly to the library's resolver page and can view the library's book record. If the user does not configure an OpenURL Resolver, the previous WorldCat link will still be available.

Tests of the new solution showed that some OpenURL resolver links in WorldCat's registry are stale. It appears that these are typically the result of library managed resolvers that haven't updated invalid links. While it takes time and the cooperation of a library's technical staff to implement a local OpenURL resolver, any library can in principle implement a resolver at any time without incurring membership fees such as those required for using WorldCat. (CUFTS is one open source solution for implementing OpenURL in libraries.) Also, while many academic libraries have an OpenURL resolver, many public libraries do not.

With the OpenBooks direct linking solution, no advanced technical knowledge is required by the librarian to implement it. He or she simply configures the OpenURL resolver once, and OpenBook does the rest of the work.

Other enhancements in version 2 increase the usefulness of OpenBook to librarians and book bloggers. There is full user control over the content and styling of the OpenBook data elements. Users will be able to use shortcodes in WordPress widgets. An indicator will let users know if a book is available to be read online at Open Library. For technically advanced users, OpenBook has been rewritten for re-use of code modules in other contexts. These and many other features will be available when version two of OpenBook is released in the fall of 2009. | FE |

Pure Premium Solutions

For the fastest way to solve your information management needs, **ARMA 2009** is a must-attend experience. You'll find real solutions, best practices, and technology tools for managing records and information throughout the enterprise. It's the biggest and best educational event in the field, with more than 80 educational sessions and more than 200 top-shelf exhibitors.

ARMA'09 ORLANDO

ARMA'09 ORLANDO

ARMA'09 ORLANDO

ARMA'09 ORLANDO
CONFERENCE & EXPO • OCTOBER 15-18, 2009

www.arma.org/conference

REGINA ROMANO REYNOLDS & CINDY HEPFER

IN SEARCH OF
BEST PRAC
FOR THE PRESENTATION OF E-JOURNALS

TICES

Pretend that you are in college. You are a pre-med biology major suffering through a required American history course. You have to write a term paper and since you have a cousin serving in the army in Iraq, you have chosen as your topic diseases that have been encountered by soldiers serving in the U.S. military.

In an October 2000 issue of *Military Medicine*, you find an article that interests you: "The Results of Hookworm Disease Prophylaxis in Brazil." The citation for the article in question is given as: Am J Hyg 1922; 2: 77-95. You don't really understand what that citation means and you wonder how you can get the article in any case, since a) you live and study in Buffalo, b) there are three feet of snow on the ground and the temperature is 3 degrees above zero, c) it's New Year's weekend, so the public library and university libraries are both closed, and d) the holidays have flown by and the paper is due January 4, the day that school resumes—five days from now. Fortunately, you have electricity, a warm place to work, and Internet access. It occurs to you that you ought to be able to locate the article online.

There are numerous improvements that can be made to many journal websites—even to some of the very best—since publishers often omit from their websites information that they publish in their printed issues.

You aren't sure what *Am J Hyg* stands for, so you google that phrase. What you retrieve is a website for *The American Journal of Tropical Medicine and Hygiene*. That's a bit puzzling—why does the abbreviation appear to skip over important words? As you stare at the website you retrieved, you notice that it offers an option to "Select an issue from the archive, January 1921-March 2009." The article that you wanted was published in 1922, so maybe this somehow is the right journal. You click on 1922 and find that there are six issues. However, after looking at the available issues for 1922 and your citation, you realize that the pagination in the citation and the pagination available online don't coincide; this apparently is not the right journal after all. But just to be sure, you use the search feature available on the journal's homepage and get no hits. It's the end of the road.

Or is it? You have endured boring "bibliographic instruction" sessions in English 101, so you have some rudimentary knowledge of how to search the university's online catalog. You log onto the library's homepage and click on the catalog search. You once again type in *Am J Hyg*, and this time you get 4 hits: *American Journal of Tropical Medicine and Hygiene*—a title you already know is a dead end—plus *American Industrial Hygiene Association Journal*, *Journal of the American Dental Hygienists Association*, and one that makes very good sense: *American Journal of Hygiene*. Alas, however, *American Journal of Hygiene* is only available in print, and it is in the library's "Annex," whatever that is. You reluctantly give up on the article because clearly you are not going to get what you want today, and you don't have sufficient time to pursue an interlibrary loan.

In reality, *American Journal of Hygiene*, often cited as *Am J Hyg*, changed title in 1965 to *American Journal of Epidemiology*. The university's catalog offers online access to the later title starting with the late 1990s. Had it been obvious at any point during your search that *American Journal of Hygiene* was, in fact, what *American Journal of Epidemiology* was called from 1921-1964, you would have had a chance of finding your way to the article in question. For example, you could have used the search box available on the *American Journal of Epidemiology*'s website; in this case, you would have retrieved the desired paper. Or you might have browsed the journal's archive and found the article in question in the first issue of 1922. While you would not have been able to pull up the PDF because the library had not purchased the backfile that includes 1922, you could have used a credit card to buy access to the article and therefore have been able to immediately get on with the business of writing the paper. Unfortunately, googling *Am J Hyg* did not retrieve *American Journal of Epidemiology*, even though the first 79 volumes of that title were published and cited as *American Journal of Hygiene*. So, you remained unaware that you could have accessed the paper; the library failed to help you access what you were looking for; and the publisher lost a potential sale.

Critical Elements for the Presentation of Journals on Websites

Some publishers seem to do a wonderful job of presenting journals on websites. They include the journal's title, ISSN, volume and issue numbers and their corresponding dates, PDF and html versions of each article, a search feature, and the name of the publisher and the sponsoring bodies. What more could anyone ask for?

In fact, one could and should ask for a great deal more. There are numerous improvements that can be made to many journal websites—even to some of the very best—since publishers often omit from their websites information that they publish in their printed issues. But this article will focus on title presentation and citation practices because, as has been described, unless journal websites list all the titles under which content was published, user access to desired content is considerably diminished. No one wins: not the library, the publisher, the vendor, and certainly not the researcher!

What Can Be Done?

The main purpose of this article is to raise awareness of journal title presentation and citation issues and to spark interest in development of a NISO best practices document. Following are some of the challenges inherent in current journal title presentation practices, challenges that a NISO best practices document could address by providing both background information and recommendations.
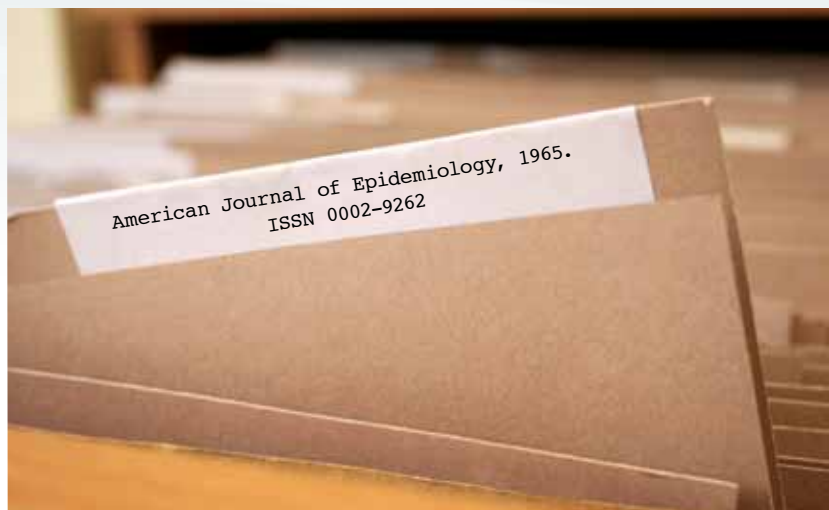
The Library Perspective

In order to better understand this problem from a library perspective, it is necessary to understand how libraries regard journal titles and title changes. Since 1971, most U.S. libraries have followed cataloging rules that require each significantly changed title of a journal to be cataloged as a separate record; the result is that libraries effectively consider a changed title to have become a new journal for identification, control, and inventory purposes. Additionally, each significantly changed title—following the same rules as those in cataloging—requires a new ISSN. Thus, ISSN and library cataloging records generally align well.

One result of the fact that libraries and the ISSN Network consider a changed title to be a new title is that libraries count each significantly different name under which a journal has been published as a separate title in their journal title count. Thus, if a content provider counts only the current titles represented in a package, that provider's title count could be as much as 20% lower than the number of journals a library would consider the package to contain, were all former title names separately listed and indexed. Alignment between how libraries identify and count titles and how publishers and vendors identify and count them would seem to be in everyone's best interest both from a research as well as a marketing perspective.

The Content Provider's Perspective

At a NASIG workshop in 2008, Bob Boissy (Director, Network Sales, Springer) pointed out that editors vary in their perspectives on how to present articles from journals whose titles have changed over time. Some editors feel the content is more marketable if it is presented under the current title. It is probably also the case that placing all the content under the current title seems to product managers and website designers to be a simpler and more elegant arrangement than breaking the content into the various pieces that placing it under multiple changed titles might entail. This is where a best practices document could serve an educational function by pointing out the consequences of placing older articles under current titles. Not all content providers employ librarians, and not all those who make decisions about how to present their content think to consult librarians.

American Journal of Epidemiology, 1965.
ISSN 0002–9262

Alignment between how libraries identify and count titles and how publishers and vendors identify and count them would seem to be in everyone's best interest both from a research as well as a marketing perspective.

What Are the Issues?

1 Titles for Different Formats. All journal websites include some kind of title. If there is a print version of the journal, identification and access to both versions are enhanced if the title is presented in exactly the same way on both. However, sometimes publishers seem to want to create a fresh identity for the online version, for example by adding the word "online" or "electronic," or perhaps by using a logo or initials on the website that do not appear on the print version. This may or may not be a great marketing approach; but if confusion results and if users are unable to determine whether they have found the journal they are seeking, how great is that?

2 Former Titles. Any journal that is published over a long period of time is likely—sooner or later—to change its title. The scope of the publication might change over time, or the number of good articles submitted for consideration might improve to the point where two parts are created, each bearing its own title. Another possible factor is that names and interests of sponsoring associations often transform over time. Editors come and go, even if one of them is lucky enough to enjoy an extremely long and notable tenure. In each of these cases, the publisher, sponsor, or editor may wish to modify the title of the journal or to change it altogether.

REWRITING
HISTORY

Citations need to be historically accurate; they need to cite the title that the journal carried at the time when the article was published. And all areas of websites that aggregate journal content need to consistently represent journal titles along with the dates those journals were published under those titles.

When a journal title is modified or changed entirely, history is not completely rewritten. The publication has already likely been issued over a number of years with the previous title. Most journals or periodicals of any importance will have been indexed in one or more major abstracting and indexing (A&I) services. Articles have almost surely been cited in books and in other articles—using the title of the journal at the time the article was published. The heaviest use of an article can be expected in the first years after publication, so the number of citations under the original title will likely be high. The publisher cannot wave a magic title change wand that somehow replaces the old title with the new one on any print issues or bound serial volumes that might still exist in many libraries. Even if the article was only issued in an online form, the publisher cannot ensure that citations will be changed in every A&I database or in each citation in each book and journal article that referenced that article under its original journal title.

That being the case, information about, and easy access to, the older title needs to be provided on the website for the new title. It is important that information about the former title be presented with enough prominence on the website to be easily visible and well enough indexed to be accessible via a search engine. There are at least a couple of good ways that tracking former titles can be handled, but the pressing point here is that former titles cannot be swept under the rug.

3 **Citations.** When users retrieve articles from an online journal, it is increasingly common for them to also retrieve a citation information page that indicates how the article should be cited. Unfortunately, these citation pages often recommend the journal's current title rather than the title that appeared on the journal at the time when the article was published. This is another attempt to rewrite history and one that is doomed to

failure because all the former citations can never be corrected. It is also a practice that will result in ongoing failures—failure of users to find articles.

A final irony is that if the researcher employs the suggested citation title (i.e., the current title of the journal) rather than the journal title at the time the article was first published, ongoing confusion will result: a future researcher will find the article—the same author(s) and the same article title—listed as appearing in two different journals published in the same year. And when the journal inevitably changes title yet again at some future date, the very same article that already appears to have been published in two different journals in one year will end up being cited as having been published in yet a third journal. What kind of contribution to scholarship is this? The infrastructure of scholarly citation will become ever more littered with wrecked searches!

Citations need to be historically accurate; they need to cite the title that the journal carried at the time when the article was published. And all areas of websites that aggregate journal content need to consistently represent journal titles along with the dates those journals were published under those titles.

4 **ISSN.** Even if publishers and other content providers, as well as the editors and product managers associated with these entities, become aware of the need to align content under the correct titles, how can they know the correct title sequences, dates, and ISSN? Access to the ISSN Portal, the database of ISSN registrations available from the ISSN International Centre, can often provide this information, with each separate title having its own record, ISSN, and publication dates as well as links to former and later titles. ISSN centers can also usually provide help in resolving questions or interpreting complex relationships.

Consequences of Omitting Former Titles

What happens when former titles are omitted altogether even while the content is present on the website? As we have seen with the frustrated undergraduate described in the introduction to this article, those online issues under the old title will be effectively lost, much as mis-shelved journal volumes in a library cannot reasonably be found and used. Needlessly unsatisfied and frustrated users are probably the worst consequence.

However, in today's economic environment, there are additional negative consequences. Libraries have had to become extremely discriminating about purchases, and they have to choose among many products those which represent the best value for the funds they still have to spend. Libraries and services that work with them, such as the various electronic publications access management services and A&I services, need to be made aware that content providers offer access to many more titles than they now claim to do since earlier titles are not presented separately, not indexed under the old title, and not included in total title counts. This is surely a missed marketing opportunity! By providing prominent access to former titles, publishers, vendors, and libraries can legitimately claim higher numbers of titles and have better value in the packages they are selling or purchasing.

Further serious consequences that result from lack of access to or indexing of former titles relate to machine access, machine matching and processing, and the flow of information along the serials supply chain. Many academic institutions rely on link servers/link resolvers to connect users with journal articles by using the metadata in Open URLs (ANSI/NISO Z39.88). Journal title and ISSN are key elements of OpenURL metadata; if the source citation (as represented by OpenURL metadata) and the knowledgebase identify the same content with different journal titles and ISSN, then the corresponding target links will not be offered to the user. Once again, expensive content that a library has paid for will not be served to a researcher, even though that content has been licensed and should be available to its users.

The problems caused by some databases and services not listing content under the original title, while others do, ripple throughout the serials information and supply chain: information coming from some electronic publications management services does not match information coming from others, or does not match information from A&I databases. In addition to causing user confusion and failed searches, these mis-matches also cause library staff to spend time trying to determine which information is correct. Everyone suffers—most of all, the researcher and the library budget.

> By providing prominent access to former titles, publishers, vendors, and libraries can legitimately claim higher numbers of titles and have better value in the packages they are selling or purchasing.

What Best Practices Are Already Available?

Are there any standards or best practices already available that relate to the presentation of journals on websites? Some relevant resources are the following:

➡ **Best Practices for Ejournals: Publication and Website Design Guidelines,** a web document created by Ann Ercelawn, a serials cataloger at Vanderbilt University. This brief set of practice guidelines offers three points related to title presentation and title changes, as well as several other useful tips.

➡ A report on a **NISO/NFAIS workshop** held in Philadelphia on February 20, 2000 on **Best Practices for Electronic Journals** and a summary article about the workshop written by Priscilla Caplan for the Jan. 2000 issue (v. 17, no. 5) of *Library Hi Tech*. While much of this information seems quite dated in 2009, there are some basic tenets that still apply, particularly in the section reporting on the viewpoint of the library.

➡ **Serial Publications: Guidelines to Good Practice in Publishing Printed and Electronic Journals (2nd edition)** by Diane Brown, Elaine Stott and Anthony Watkinson. Association of Professional and Learned Society Publishers, January 2003.

➡ **NISO's Knowledge Base And Related Tools (KBART) Working Group** is working on issues that are related to the presentation of journals on publisher websites, but their focus is on smoother interaction and exchange of data between members of the knowledge base supply chain.

➡ A report by Deberah England on a 2008 NASIG (North American Serials Interest Group) conference presentation by Les Hawkins, Regina Reynolds, and Steven C. Shadle entitled **"Journal Title Display and Citation Practices"** published in *The Serials Librarian*, v. 56 (2009), pp. 271-281. The presentation

in question, which was conceived after some exchanges on the serials discussion list SERIALST, reviews and illustrates many of the issues presented here, including examples of websites that do list all current and former titles.

Given the brevity, age, or relative inaccessibility of some of the above resources (e.g, the book by Brown et al. is only available in print and costs $75), the time seems right to develop and publicize a best practices document. NISO has expressed interest in sponsoring a working group to tackle this and related presentation issues.

Next Steps

A core group of individuals—Les Hawkins and Hien Nyugen (Library of Congress), Regina Reynolds (US ISSN Center), Steve Shadle (University of Washington) and Cindy Hepfer (University at Buffalo) —are issuing invitations to several publishers, platform providers, and public access management service providers to work with them to develop a NISO proposal. If that proposal is accepted, a call will go out for additional interested individuals from both libraries and the commercial sector, but especially the latter, to participate in discussions and to develop draft guidelines. Anyone wishing to express interest in this work should contact Karen Wetzel, NISO's Standard Program Manager (kwetzel@niso.org). | FE | doi: 10.3789/isqv21n2.200902

REGINA ROMANO REYNOLDS <rrey@loc.gov> is ISSN Coordinator at the Library of Congress in Washington, DC.

CINDY HEPFER <hslcindy@buffalo.edu> is Continuing Resources Cataloging Team Leader, State University of New York at Buffalo Libraries in Buffalo, NY.

RELEVANT LINKS

Best Practices for Ejournals:
(Ann Ercelawn)
www.library.vanderbilt.edu/ercelawn/bestpractices.htm

ISSN International Centre
www.issn.org

Journal Title Display and Citation Practices
(Hawkins, et al)
www.informaworld.com/smpp/content~content=a9095
30893~db=all~order=page

KBART Working Group
www.niso.org/workrooms/kbart

NISO/NFAIS workshop Best Practices for Electronic Journals (report)
www.niso.org/news/events/niso/past/ejournalswkshp6/

NISO/NFAIS workshop Best Practices for Electronic Journals (Priscilla Caplan)
www.emeraldinsight.com/Insight/viewContentItem.do
?contentType=NonArticle&contentId=1489545.

OpenURL standard (ANSI/NISO Z39.88)
www.niso.org/standards/z39-88-2004/

SERIALST (Serials in Libraries Discussion Forum)
www.uvm.edu/~bmaclenn/serialst.html

OP [OPINION]

A judgment formed about something;
a personal view, attitude, or appraisal

Jay Datema

JAY DATEMA

What is the Future of Video and Standards?

It seems that everything's available online, except the ability to search for particular video scenes. Recently, I was searching for an actress I'd last seen in a film 15 years ago and imdb.com was no help. I eventually found Lena Olin by watching the credits, but the experience made me wonder if video standards could aid the discovery process.

In a conversation last year, Kristen Fisher Ratan of HighWire Press wondered if there was a standards-based way to jump to a particular place in a video, which YouTube currently offers through URL parameters. This is an obvious first step for citation, much as the page number is the lingua franca of academic citations and footnotes. And after a naming convention is established, the ability to retrieve passages and to optimize by searching strings is a basic requirement for all video applications.

Josh Bernoff, a Forrester researcher, is quite skeptical about video standards, saying, "Don't expect universal metadata standards. Standards will develop around discrete applications, driven primarily by distributors like cable and satellite operators." While this is likely true of the present, use of established markup languages like RDF using relevant subsets of Dublin Core extensions could enable convergence. As John Toebes, Cisco chief architect, wrote for the W3C Video on the Web workshop, "Industry support for standards alignment, adoption, and extension would positively impact the overall health of the content management and digital distribution industry."

Existing Models

It's useful to examine the standards that have formed around still images, since there is a mature digital heritage for comparisons. NISO's *Data Dictionary—Technical Metadata for Still Images* standard, known as MIX, is a comprehensive guide for defining the fields that are in use for managing images.

IPTC and EXIF standards for images have the secondary benefit of embedding metadata so that information is added at the point of capture in a machine-readable format. However, many images, particularly historical ones, need metadata to be added. Browsing Flickr images gives an idea of the model— camera information comes from the EXIF metadata, and IPTC can be used to capture rights information. However, tags and georeferencing is typically added after the image has been taken, which requires a different standard.

Fotonotes is one of the best annotation technologies going, and has been extended by Flickr and others to give users and developers the ability to add notes to particular sections of an image. The annotations are saved in an XML file, and are easily readable, if not exactly portable.

The Problem

For precise retrieval, video requires either a text transcript or complete metadata. Jane Hunter and Renato Iannella did an excellent job of proposing a model system for news video indexing using RDF and Dublin Core extensions in their proposal, now ten years old. There has been some standardization around the use of Flash and MPEG standards for web display of video, which narrows the questions just as PDF adoption standardized journal article display.

With renewed interest in Semantic Web technologies from the Library of Congress and venture capital investors, the combination of Dublin Core extensions for video and the implementation of SMIL (pronounced smile) may be prime territory for mapping to an archival standard for video.

Support is being built into Firefox and Safari, but the exciting part of SMIL is that it can reference metadata from

With renewed interest in Semantic Web technologies from the Library of Congress and venture capital investors, the combination of Dublin Core extensions for video and the implementation of SMIL (pronounced smile) may be prime territory for mapping to an archival standard for video.

> Just as the DOI revolutionized journal article URL permanence, I hope for a future where a video URL can be passed to an application and all related annotations can be retrieved, searched, and saved for further use.

markup. So, if you have a video file, metadata about the object, a transcript, and various representations (archival, web, and mobile encodings of the file), SMIL can contain the markup for all of these things. Simply stated, SMIL is a text file that describes a set of media files and how they should be presented.

Prototypes on the Horizon

Another way of obtaining metadata is through interested parties or scholars collaborating to create a shared pool of information to reference. The Open Annotation Collaboration, just now seeking grant funding and featuring Herbert van de Sompel and Jane Hunter as investigators, seeks to establish a mechanism for client-side integration of video snippets and text as well as machine-to-machine interaction for deeper analysis and collection.

And close by is a new Firefox add-on, first described in D-Lib as NeoNote, which promises a similar option for

articles and videos. One attraction it offers is the ability for scholars to capture their annotations, share them selectively, and use a WebDAV server for storage. This assumes a certain level of technical proficiency, but the distributed approach to storage has been a proven winner in libraries for many years now.

The Vision

Just as the DOI revolutionized journal article URL permanence, I hope for a future where a video URL can be passed to an application and all related annotations can be retrieved, searched, and saved for further use. Then, my casual search for the actress in *The Reader* and *The Unbearable Lightness of Being* will be a starting point for retrieval instead of a journey down the rabbit hole.

| OP | doi: 10.3789/isqv21n2.200906

JAY DATEMA <jdatema@bookism.org> is Content Editor of ISQ.

RELEVANT LINKS

Advanced Media Workflow Association
www.aafassociation.org/

The Application of Metadata Standards to Video Indexing
www.itee.uq.edu.au/~eresearch/papers/1998/ECDL2.pdf

Archive.org Moving Image Archive
www.archive.org/details/movies

Data Dictionary—Technical Metadata for Still Images (ANSI/NISO Z39.87)
www.niso.org/standards/z39-87-2006/

Enabling a Richer Video Experience with Metadata (Toebes)
www.w3.org/2007/08/video/positions/Cisco_MSG.html

EXIF
www.exif.org/

IPTC
www.iptc.org/

Jane Hunter
www.itee.uq.edu.au/~jane/

Library of Congress Authorities & Vocabularies
id.loc.gov/authorities/

The Myth of Video Metadata Standards (Bernoff)
www.forrester.com/ER/Research/Brief/Excerpt/0,1317,33052,00.html

NeoNote
www.dlib.org/dlib/may09/hemminger/05hemminger.html

NISO Metadata for Images in XML Schema (MIX)
www.loc.gov/standards/mix/

Open Annotation Collaboration
www.openannotation.org

Renato Iannella
renato.iannella.it/

SMIL
www.XmediaSMIL.net/

Video Metadata Model
microformats.org/wiki/video-metadata-model

W3C Video on the Web Workshop
www.w3.org/2007/08/video/papers.html

QA

[QUESTION & ANSWER]

CYNTHIA HODGSON

Member Spotlight on 3M: Ensuring Customer Confidence

3M is a long-time NISO voting member and active participant in standards development. For this issue's member spotlight, ISQ Managing Editor, Cynthia Hodgson, spoke with Sue Boettcher, Senior Technical Projects Specialist and the primary voting representative to NISO, Paul Sevcik, Senior Product Development Specialist and a member of NISO's RFID Working Group, and Joan Olseen, Marketing Communications Manager.
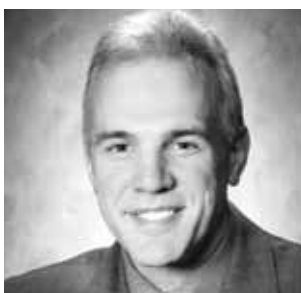
Sue Boettcher
Senior Technical Projects Specialist and the primary voting representative to NISO

Q **3M is well-known for its consumer products such as Post-it® notes and for the materials technology in use in many manufacturing and industry applications. What kinds of products do you have in the library market?**

Sue: 3M has been making library products for almost 40 years. World-wide we offer such products as the SelfCheck™ System for self-service circulation , Tattle-Tape™ Security Strips, Detection systems, the handheld Digital Library Assistant, and item returns and sorters for physical materials handling. In addition to our RFID tags, the RFID technology is built into our self-service and security solutions.

Q **How have you incorporated standards into your library products?**

Paul: At 3M, standards are pervasive in everything we do. The factory where our products are made is ISO 9000 certified. [ISO 9000 is part of a family of international Quality Management standards.] We use test standards extensively to ensure safety and product quality. For example, we test our RFID products as a system for electromagnetic compatibility to prevent interference and to meet FCC regulations. We even have a special department at 3M to guide developers through their testing of products. We know both durability and longevity are important for RFID tags in a library environment and we do accelerated aging tests in our specialized laboratory so our customers can have confidence that our tags will be reliable and will last as long as the items to which they are attached.

Paul Sevcik
Senior Product Development Specialist and a member of NISO's RFID Working Group

Sue: We also use standards in our software development, from ANSI standards for coding, to ISO standards on currencies and date formatting, to IEEE standards for the software development process.

Joan: There are a lot of standards which customers take for granted. They assume products won't give them electric shocks, start fires, or interfere with other electronic devices. 3M spends a lot of money and effort to ensure the customer can take these things for granted. Our customers' health and safety are a number one concern.

Joan Olseen
Marketing Communications Manager

Q **What benefits have you found from incorporating standards into your products?**

Paul: At the product development stage, standardized processes allow greater efficiency in designing the products, and they enable new people to get up to speed quickly. In product testing, the processes ensure the product is complete and works as expected, which results in happy customers. We like happy customers.

Sue: Standards do not equate to commoditization, as many people think. They actually provide us with flexibility, interoperability, and the ability to differentiate ourselves and to be competitive.

Paul: That's right. Standards help grow the market and provide competitive opportunities because they give the customer greater vendor independence in the selection of compliant products. The customer is the real beneficiary of standards. They can be confident their investments will have lasting value and work with other products—not only those products they have now but also those they might buy in the future.

Joan: The company has high standards for the 3M brand. We are responsible to make products that live up to the brand reputation and have longevity. Standards help ensure that. 3M plans to be around for the long haul. We participate in a lot of standards development and we do a lot of R&D to continue to make products that the library community needs.

Sue: And where no standards exist, we will sometimes develop our own and share them with the industry, like we did with SIP.

Q **SIP is the Standard Interface Protocol that is supported by many vendors for library circulation. How did that come about?**

Sue: It was developed originally to support the 3M SelfCheck System, which allows library users to check their materials in and out themselves. We were using screen scraping for the interface between library systems and the SelfCheck System. Every time we implemented the SelfCheck System with a different library system, we had to create a new customized interface. So we developed SIP to be a common protocol, published it as a public, open standard, and encouraged library automation vendors to use it, to promote interoperability.

Customers of our self-service products would often require their ILS vendor to support SIP and it quickly became a defacto standard. It's still in use today, even though the NISO NCIP standard has been released. Not many have migrated to NCIP yet for the self-service functions.

Q **Let's talk about NCIP, the NISO Circulation Interchange Protocol (Z39.83). 3M was a major participant in the NCIP standard development. Why do that when you already had the SIP standard?**

Sue: We were involved in the NCIP development right from the beginning. We saw the opportunity to take our defacto standard, SIP, and build on it with the NISO community to create a consensus standard that was broader in scope than SIP. 3M currently supports both SIP and NCIP in its products; we've had NCIP 1.0 implemented for over two years.

> "We developed SIP to be a common protocol, published it as a public, open standard, and encouraged library automation vendors to use it, to promote interoperability."

> The customer is the real beneficiary of standards. They can be confident their investments will have lasting value and work with other products—not only those products they have now but also those they might buy in the future.

Version 2 of NCIP, which was published in 2008, incorporates more capability for the self-service areas where vendors are still using SIP. We plan to support the new version of NCIP and we continue to participate on the NCIP Implementers Group. The Group is actively promoting the adoption of NCIP 2.0 by library equipment and ILS vendors.

Q What other standards development has 3M been involved in?

Sue: Outside the library industry, 3M is heavily involved in standards development in every area we have products, from consumer to aerospace. We also work with various industries to promote standards. We like to work though organizations like NISO so we can collaborate with others.

Paul: In addition to the NCIP standard, we also participated in NISO's RFID Working Group and on the ISO working group developing the International Standard for RFID in libraries. RFID tags have been a problem area for a while. Even though the tag itself was standardized, those standards didn't cover the data that was stored on the tag. Several national standards or data models had been developed, as well as the NISO RFID Recommended Practice for U.S. libraries. The new ISO level standard will, hopefully, supersede those and become the umbrella standard that closes the gap. Once vendors, such as ourselves, implement this standard, libraries will have assurance that their systems will be able to read tags from partner libraries when they inter-borrow, and also that their investments will be secure over time despite equipment and vendor changes.

Q Is there anything else you would like ISQ readers to know about 3M?

Joan: Although some standards have to be followed to meet legal requirements, much of our use of standards is voluntary. Using them is just built into our corporate culture. 3M is also committed to actively contributing to sustainable development.

Paul: Our commitment to the environment isn't new; we've been working to reduce the environmental impact of our products and processes since the late 1960s. We go beyond making our own manufacturing processes "green." We use a lifecycle management process to consider what happens when a product is disposed of so we can make sure our products are friendly to the environment even when they are no longer in use. There are directives in Europe like WEEE, which make manufacturers responsible for aspects of disposal, and RoHS that led to the reduction or elimination of hazardous substances in products, such as the lead in solder on circuit boards. Although some countries have requirements like those, most of our environmental and sustainability compliance is voluntary.

Sue: As Joan said earlier, 3M is in it for the long haul and with our sustainability strategies everyone can be confident that we're looking after future generations too. | QA |

CYNTHIA HODGSON <chodgson@niso.org> is the Managing Editor of ISQ and a technical editor and consultant to NISO.

3M
www.3M.com

3M Library Systems
www.3M.com/library

SIP
www.3M.com/sip

NCIP Implementers Group
www.ncip.info

NISO RFID Recommended Practice
www.niso.org/publications/rp/RP-6-2008.pdf

RELEVANT LINKS

CORE

ONE YEAR TRIAL USE UNDERWAY

We need
YOUR HELP!

To ensure that the standard is effective, easily implementable, and functional, the CORE Working Group is looking for trial participants who will be asked to implement the CORE protocol in their own organization (or with another trial implementer), participate in a discussion list during the trial to share experiences, and provide feedback on any needed changes to the protocol prior to final issuance of the standard. The Working Group will be available during the trial to provide guidance and answer questions. Please visit www.niso.org/contact to indicate your interest and provide contact information.

TRIAL USE DOCUMENT PUBLISHED
Trial Period From April 1, 2009 – March 31, 2010

The purpose of the Cost of Resource Exchange (CORE) specification is to facilitate the transfer of cost and related financial information from one system to another. This transfer may be from an Integrated Library System (ILS) Acquisitions module (the data source) to an Electronic Resource Management System (ERMS) (the data recipient), both belonging to the same library; from a book or serials vendor to the library's ERMS; or it may be a transfer of cost and transaction data among members of a consortium.

Using the defined CORE XML data schema, this standard provides a common method of requesting cost-related information for a specific electronic resource, a set of resources, or all resources that the library owns, within the boundaries of a subscription period.

The CORE protocol has been generalized in order to be useful for a variety of trading partners, and the CORE Working Group has endeavored to identify data elements that are supported by ILS, ERMS, and serial vendors.

Simple design
The terse CORE XML data schema, intended to encourage rapid implementation and light-weight profiles, uses an object-oriented approach. A system on either end of the exchange needs only to create a one-time interface to the CORE protocol and can then exchange data with any other CORE-compliant system.

Fast development
The CORE Working Group was first convened in August 2008; the draft standard was completed in March 2009, just seven months later. The Working Group built on the work of a subcommittee of the DLF Electronic Resource Management Initiative, Phase II, and its published White Paper on Interoperability.

NISO

www.niso.org/workrooms/core

NR

[NISO REPORTS]

Kathleen
Folger

Helen
Szigeti

Judy
Luther
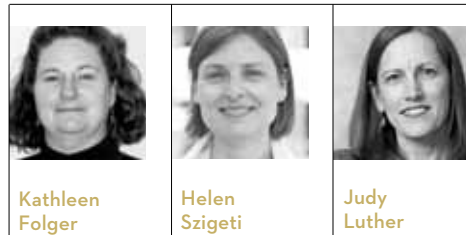
KATHLEEN FOLGER AND HELEN SZIGETI

NISO's Business Information Topic Committee: Focusing on the Management of Information

The Business Information Topic Committee was formed in early 2007 as part of the strategic redesign of NISO's standards development process.

It is one of three topic committees created at that time—the other two are Discovery to Delivery and Content and Collection Management—which were designed to bring together leaders in key subject areas to provide direction to the organization for standards development in those areas.

Each topic committee is charged with the following tasks:

» Track standards development within NISO and in other standards organizations related to the topic.

» Identify where new standards may provide solutions in their specific area.

» Convene Thought Leader meetings to incubate new standards activities.

» Create and provide guidance and oversight to standards working groups under their purview.

» Manage the five-year reaffirmation process for approved standards.

The Business Information Topic Committee focuses on issues regarding the management structure surrounding the acquisition, licensing, purchasing, and analysis of information. Specific areas include: license expression, online usage data, access management, performance measures, and other statistics. Over the past year, there have been five active groups whose work fell under the purview of the committee: Cost of Resource Exchange (CORE) Working Group, Institutional Identifiers (I²) Working Group, ONIX for Publication Licenses (ONIX-PL)

Working Group, Shared Electronic Resource Understanding (SERU) Standing Committee, and Standardized Usage Statistics Harvesting Initiative (SUSHI) Standing Committee. What follows is a brief description of the standard each group is working on and a summary of the group's accomplishments and plans moving forward.

❶ CORE
Cost of Resource Exchange

CORE is intended as a standard to facilitate the exchange of cost, fund, vendor, and invoice information between Integrated Library Systems (ILS), Business Systems, Electronic Resource Management Systems (ERMS), Subscription Agents, and other interested parties. The CORE Working Group was established in August 2008 and has developed and released a Draft Standard for Trial Use. The trial use period is scheduled to run from April 1, 2009 to March 31, 2010.

❷ I²
Institutional Identifiers

The I² (Institutional Identifiers– pronounced "eye 2") working group is building on work from the Journal Supply Chain Efficiency Improvement Pilot, which demonstrated the improved efficiencies of using an institutional identifier in the journal supply chain. The NISO working group will develop a standard for an institutional identifier

that can be implemented in all library and publishing environments. The standard will include definition of the metadata required to be collected with the identifier and what uses can be made of that metadata. The working group has identified three broad scenarios: Electronic Resources, Institutional Repositories, and Library Resource Management. Each scenario area in turn will address transactional areas including licensing, authentication, usage statistics, research evaluation, author registries, and collaboration as they apply to each scenario. Co-chairs and topical experts have been identified for each scenario. Additionally, membership of the scenario groups comprises minimum representation from libraries, systems providers, intermediaries, and publishers. Other organization types may be represented as necessary.

❸ ONIX-PL
ONIX for Publication Licenses

ONIX for Publications Licenses (ONIX-PL) is a family of standard XML messaging protocols for exchanging licensing information which builds on the work of the Digital Libraries Federation Electronic Resource Management Initiative (ERMI) and NISO's License Expression Working Group (LEWG).

The ONIX-PL Working Group, created in 2008, is a joint project of NISO and EDItEUR. The group is charged to actively support and contribute to the

continued development of the ONIX–PL standard for license expression to ensure it is fit for use by all types of stakeholders. In November 2008, after extensive piloting, the first published version, Version 1.0, of the ONIX-PL format specification was released. The working group has identified a need for broader and more collaborative education and outreach, especially in the United States. In addition, there is interest in mapping SERU to ONIX-PL, which the group intends to do by working collaboratively with the SERU Working Group.

④ SERU
Shared Electronic Resource Understanding

Approved as a NISO Recommended Practice (RP-7-2008), SERU offers publishers and libraries the opportunity to save both the time and the costs associated with a negotiated and signed license agreement by agreeing to operate within a framework of shared understanding and good faith. The SERU Standing Committee is continuing to work on outreach and promotion with a focus on branding. They are working to create a logo that can be used to identify publishers and products that can be purchased using SERU. There is also interest in creating a survey to better gauge the extent to which SERU has been used and to gain from that some success stories/case studies to better promote SERU.

⑤ SUSHI
Standardized Usage Statistics Harvesting Initiative

The SUSHI Protocol standard (ANSI/NISO Z39.93) defines an automated request and response model for the harvesting of electronic resource usage data utilizing a web services framework. It is intended to replace the time-consuming user-mediated collection of usage data reports.

The protocol was designed to be both generalized and extensible, meaning it could be used to retrieve a variety of usage reports. An extension designed specifically to work with COUNTER reports is provided with the standard, as these are expected to be the most frequently retrieved usage reports. The committee's efforts are currently focused on helping those organizations who don't yet have SUSHI implemented to do so by the August 2009 deadline for COUNTER 3.0 compliance.

Future Plans

In addition to guiding the efforts of these working groups and managing the assigned standards portfolio, the Business Information Topic Committee will continue to survey the business information landscape to identify issues and emerging technology that may benefit from a standard or recommended practice. Areas that are currently being monitored for opportunities include electronic resource management systems data, article-level assessment measures, and research data sharing.

A core goal of the Committee is not to work in isolation but to reach out to other organizations, both nationally and internationally, that have similar missions and directives, focusing on collaborative efforts whenever and wherever possible. Other organizations or project teams working in the business information area are encouraged to contact either of the co-chairs to discuss opportunities for collaboration. | NR |

KATHLEEN FOLGER <kfolger@umich.edu> is the Electronic Resources Officer at the University of Michigan Library.

HELEN SZIGETI <hszigeti@stanford.edu> is Business Development Manager for High Wire Press. Kathleen and Helen are Co-chairs of NISO's Business Information Topic Committee

Members of the Business Information Topic Committee:

Ivy Anderson
California Digital Library

John Carlo Bertot
Information Use Management Policy Institute

Johan Bollen
Los Alamos National Laboratory

Denise M. Davis
American Library Association

Kathleen Folger (Co-chair)
University of Michigan Library

Herbert Gruttemeier
INIST Institut de l'Information Scientifique et Technique

Karla Hahn
Association of Research Libraries

Helen Henderson
Ringgold

Steve Hiller
University of Washington Libraries

Tim Jewell
University of Washington Libraries

Heather Reid
Copyright Clearance Center

Helen Szigeti (Co-chair)
HighWire Press, Stanford University

RELEVANT LINKS

Business Information Topic Committee
www.niso.org/topics/businfo/

CORE Working Group
www.niso.org/workrooms/core

I² Working Group
www.niso.org/workrooms/i2

Journal Supply Chain Efficiency Improvement Pilot
www.journalsupplychain.com/

ONIX-PL Working Group
www.niso.org/workrooms/onixpl

SERU Standing Committee
www.niso.org/workrooms/seru

SUSHI Standing Committee
www.niso.org/workrooms/sushi

JUDY LUTHER

Streamlining Book Metadata Workflow

Following an OCLC-hosted Symposium for Publishers and Librarians on Metadata this March (see meeting report on page 40), NISO and OCLC commissioned Judy Luther to conduct a follow-up study on metadata life cycle and workflow.

This white paper will be used along with recommendations from NISO's 2008 Thought Leader meetings to identify areas where the NISO community can develop standards or recommended practices to improve the metadata workflow. This article is an extract from the final draft of the white paper. The full white paper, which will include a book metadata exchange map, will be available for free download from the NISO website.

The ultimate function of book metadata is to enable readers to identify and acquire books of interest. As consumers increasingly use online resources to make selection decisions, they need more and better descriptive information. Metadata also plays a critical role as a lubricant in the supply chain workflow allowing books to flow more rapidly and efficiently through the pipeline. Publishers, wholesalers, booksellers, metadata vendors, and librarians are under pressure to find new ways to manage metadata effectively and efficiently.

This report presents a map showing current data exchanges and highlights issues and opportunities that reflect perspectives based on interviews with 30 representatives throughout the supply chain. It was created to support and advance conversations among the stakeholders with the intent of developing a shared understanding and identifying opportunities to increase efficiencies and reduce the costs associated with redundant efforts.

Stakeholder Perspectives

The objectives and perspectives of stakeholders reflect their diverse roles. The volume of metadata ranges from 1 to 20,000 or more books per year from publishers, to between 8 and 14 million metadata records for titles currently available from vendors and booksellers, to the 32 million books in the world's largest library, the Library of Congress, to the 106 million cataloged book records from all of OCLC's member libraries.

Publishers: Publishers are digitizing their backlists so they can make these titles available without incurring the costs of print inventory and warehouse space. Some publishers are beginning to assign metadata to elements below the title level to provide greater access to book chapters and to prepare for future revenue opportunities. At the largest publishers, *ONIX for Books* is used to structure large amounts of descriptive and administrative data and to transmit it in XML. Excel files, proprietary formats, and print catalogs are much more common methods of compiling metadata among smaller publishers. While ONIX has improved the amount of data available and facilitated its distribution, both publishers and vendors agree that the use of ONIX as a format does not guarantee that metadata is timely or accurate.

Metadata Vendors: These institutions include registration authorities, cataloging service agencies, and member organizations. Commercial metadata vendors are at the nexus of the supply chain. They must be able to uniquely identify an item and then update and enhance the record for it with metadata

Metadata also plays a critical role as a lubricant in the supply chain workflow allowing books to flow more rapidly and efficiently through the pipeline. Publishers, wholesalers, booksellers, metadata vendors, and librarians are under pressure to find new ways to manage metadata effectively and efficiently.

from different sources. They aggregate data from all sources in various formats (ONIX, Excel, print), convert it to XML, enhance it according to specified standards, and then deliver records in MARC, ONIX, and other formats.

Wholesalers: Although new books are estimated to be around 200,000 titles per year, book vendors are handling approximately 700,000 new records a year from the digitization of backlists, the increasing number of books available in digital form, and the growing volume of media formats. On average each title will have 2-3 records created for its different formats and editions. Records for new titles are likely to be updated 3-7 times, mostly before publication. Publishers that provide their data in either ONIX or Excel account for 95% of the new records. While CIP (Cataloging in Publication) data is used by the distributors to enhance records, publisher data takes priority. Increasingly, libraries expect vendors to deliver bibliographic records with the book and there is a recent surge in demand for materials that arrive processed and "shelf ready."

Booksellers: Online booksellers have demonstrated the value of extensive descriptive metadata such as cover images, author bio, table-of-contents, sample chapter, and commentary. To encourage the use of descriptive metadata and accurate and timely status updates, Barnes & Noble asks publishers to supply 44 data elements—14 more than the 30 core elements required for certification by the Book Industry Study Group (BISG). ONIX is considered effective in delivering extensive bibliographic data and it is unsurpassed for granularity and definition. Electronic Data Interchange (EDI), a standard transmission format widely used for procurement is a lightweight format that is effective for updating volatile elements such as price or status.

National Libraries: National Libraries play a key role in their respective countries in gaining consensus on the development of standards related to data exchange. The Library of Congress, although not an official national

library, has served in a leadership role internationally, developing guidelines and providing training to support the cost effective creation of high quality MARC records through a distributed and collaborative effort. Records that are enhanced by the participants in the Program for Cooperative Cataloging (PCC) are highly regarded and preferred for the authority work done on names and subjects. Both the British Library (BL) and LC are designated by law to receive copies of works published in their respective countries. Both BL and LC manage Cataloging in Publication (CIP) data programs that serve the dual role of providing prepublication data distributed in a MARC format to libraries for ordering and processing and to book trade vendors alerting them to new titles 3-6 months before publication. Last year catalogers created or upgraded records for 80% of the 350,000 titles processed by LC and 50% of the 250,000 titles processed by the BL. One estimate is that 65% of OCLC's WorldCat records are abbreviated and require authority work on the author or series and the addition of notes, summaries, tables-of-contents, and genre headings.

Local Libraries: Since electronic journals and books are packaged and sold as a collection, libraries are increasingly relying on the publisher and/or book vendor to provide MARC records with the content. At the institutional level, libraries have shifted from cataloging individual works to managing the ingestion of records from other sources such as publishers, vendors, and OCLC, and then upgrading these records as needed. As a result the percentage of materials handled by catalogers has declined

substantially and large research libraries may catalog less than 30% of the 100,000 items received in a year. Studies have shown that MARC records in an online catalog directly affect the usage of e-books.

Metadata Workflow

Metadata originates with the publisher and ends with the buyer or reader. In between it serves many purposes among multiple trading partners in the supply chain.

Prepublication data is fluid; ONIX records are typically released 3 to 6 months ahead of publication, and changes from this first release to the time of publication are common. The cumulative effect of these changes requires metadata vendors, wholesalers, and booksellers to touch each record on average 3-5 times. CIP data that is created 3-6 months prior to publication may also need to be corrected by LC or the BL when the work appears.

Over time, each community has developed standards and best practices to address their objectives. Publishers created ONIX to provide booksellers with descriptive metadata needed for book sales. Libraries created MARC as a vehicle to exchange catalog information and subsequently to provide an online catalog for discovery of content to read. While there has been significant development of standards, best practices, and systems within publishing communities and library communities, little has been done collaboratively across those communities.

ONIX for Books has been successful in reducing the questions on fielded data by 40% through providing rich definitions. ONIX 3.0, which was recently released, is not backwards compatible and requires

> Studies have shown that MARC records in an online catalog directly affect the usage of e-books.

publishers and vendors to maintain both versions for a transition period.

Today MARC 21 is an international standard with crosswalks to national flavors of MARC. The Cataloging in Publication (CIP) record appears on the back of the title page of each book and when this metadata is distributed electronically, it is done in the form of a MARC record. The incentive for publishers to obtain CIP is that prepublication announcements are made to the book trade. Libraries benefit by having MARC records available with subjects and authority control to use in ordering forthcoming books. The MARC format was designed for a print world and is limited in dealing with e-resources.

Quality

The quality of metadata is best measured by its effectiveness in supporting the goals of the stakeholders to ensure book discovery, purchase, and use. The quality of the process of metadata exchange is determined by its delivery and usefulness to other stakeholders in the supply chain.

The growing volume of metadata on each title requires a machine interface with minimal manual review or intervention. Issues that arise are likely to be problems of either definition (i.e., clarity on what a "series" is) or implementation (whether the series appears in the ONIX record and where).

Both publishers and librarians have vehicles to encourage adoption of standards and best practices to encourage quality. Use of these programs is growing slowly but is having a positive impact on the quality of metadata available to all stakeholders in the supply chain.

Outlook

The current economic climate and the rapid growth of content available in multiple electronic formats will drive stakeholders to evaluate how they can better leverage metadata while reducing associated costs. Collaborations that improve results and increase efficiency will result in achieving a streamlined flow of metadata to support the sale and use of content.

Restricted budgets and technology applications will drive decisions that relinquish local control in favor of interoperability. In the near term, cross walks between separate systems will allow the use of metadata by all stakeholders. Long term a new map will redraw the industry lines to include new stakeholders and a more efficient system. | NR |

JUDY LUTHER <judy.luther@informedstrategies.com> is President of Informed Strategies (www.informedstrategies.com) where she works with a broad range of clients in the publishing and association sector to help them better understand their current market position and to develop business opportunities that are win/win for her clients and their customers.

Opportunities for Streamlining Book Metadata

Ideas and questions raised in conversations at the OCLC Symposium for Publishers and Librarians (see page 40), during interviews, and in feedback on this document reflect the current thinking on the state of the metadata supply chain and ways to streamline it to improve its effectiveness and reduce costs.

The final white paper will identify opportunities for NISO, OCLC, and other stakeholders to pursue to address identified problems and gaps. Some of the suggested ideas are:

» **Creating crosswalks** between ONIX and CIP to allow the metadata to be exchanged between the two in a reusable XML format.

» **Exploring how each community** can take advantage of what the others have to offer. For example, libraries have many potential uses for the additional descriptive information that is in ONIX beyond what is currently used in a MARC record. Publishers could benefit from the kind of expertise libraries demonstrate in their authoritative work for authors, titles, and subjects to disambiguate authors or link authors across works.

» **Exploring methods** for integrating the recently published International Standard Text Code (ISTC) and the forthcoming International Standard Name Identifier (ISNI) standards into the existing workflow and promoting their adoption. The ISTC can be used to create associations among works and ISNI could provide authority control for authors.

» **Conduct a series of forums,** organized by NISO and OCLC, to support the continued conversation among stakeholders who will gain a greater appreciation for the value of metadata when seen through the lens of the broader community.

» **Hold additional forums** to support the continued conversation among stakeholders who will gain a greater appreciation for the value of metadata when seen through the lens of the broader community. The forums will allow the sharing of best practices and ongoing efforts. For example, BISG, along with publishers and metadata vendors, has begun working with the Global Data Synchronization Network to use its processes and standards to support data exchange for all parties including mass merchandisers.
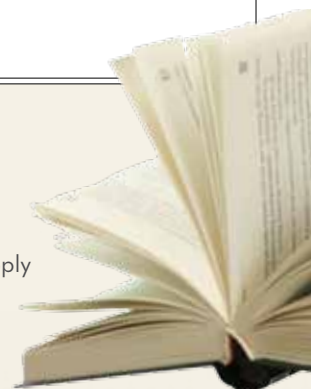
NCIP

ANSI/NISO Z39.83 2008 – NISO CIRCULATION INTERCHANGE PROTOCOL (NCIP), PARTS 1 AND 2

VERSION 2.0

A BETTER NCIP

The recently revised *NISO Circulation Interchange Protocol* (ANSI/NISO Z39.83 - 2008) makes the NCIP standard more useful, more implementable, and more broadly applicable.

Automates exchange of information between circulation and resource sharing systems

NCIP is an open standard for the exchange of circulation data, providing a solution to the need for interoperability among disparate circulation, interlibrary loan, and related applications. This 2008 revision, led by the NCIP Implementers Group and with support of the NCIP Maintenance Agency, EnvisionWare, addresses the implementation barriers and defined problems of the 2002 version.

Saves staff time

NCIP can save up to 75% of staff time by automatically communicating changes between systems thereby eliminating the need for manual input in those systems.

Simplifies implementation

The newly defined NCIP core message set supports up to 80% of the most commonly used resource sharing and self-service transactions between systems in just 9 messages. By focusing on these core messages, implementers are able to provide the primary functionality with minimal development effort.

INTEROPERABLE

NCIP simplifies the process of connecting disparate systems. This translates into time and cost savings when implementing support for circulation functions between systems.

SECURE

NCIP allows data to be securely communicated between systems.

EXTENSIBLE

NCIP defines an extension mechanism that allows the protocol to adapt to unanticipated future uses. Extensions also identify needed functions and features that could be incorporated in future versions of the protocol.

NISO

CR

[CONFERENCE REPORT]

Gail Wanner   Jonathan Gray   Renee Register
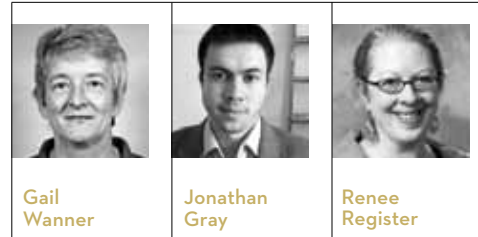
GAIL WANNER

Making Circulation Better: Highlights of the NCIP Implementers Group Meeting

NCIP, the NISO Circulation Interchange Protocol (formally known as ANSI/NISO Z39.83), has been surrounded by confusion and some controversy. The original version of NCIP was conceived as a toolkit-style standard with no minimum requirement for compliance beyond the use of at least one of the 45 messages. Several sample profiles were created to illustrate potential workflows and vendors have added other profiles to reflect actual implementations. This has, at times, led to confusion and an impression that NCIP is difficult to support. A revision of the standard in 2008 went a long way to address many issues that existed with the previous version and the NCIP Implementers Group (NCIP-IG) is now working to communicate the changes and aid in implementation.

The NCIP-IG meeting held April 14-16 at the Innovative Interfaces Inc. headquarters in Emeryville, California, was the first step in this process. Present at the meeting were Paul Sevcik, 3M; Mary Jackson, Auto-Graphics; Rob Walsh (NCIP Maintenance Agency) EnvisionWare; Mike Dicus, Ex Libris; Lynne Branche Brown, Innovative Interfaces; Karen Wetzel, NISO; Tony O'Brien, OCLC; Kevin Stewart, Relais International; and Gail Wanner (Chair) and Brent Jensen, SirsiDynix. Library representative Susan Campbell, College Center for Library Automation, was prevented from attending by severe weather in Florida.

Highlights of the meeting included:

» Adoption of the NISO guidelines for members in order to ensure that the group is balanced and members contribute to the work of maintaining and providing support for the NCIP standard.

» A proposal to move the NCIP website to NISO's site to provide the group with a working space, collaboration tools, and accessibility for public content.

» A suggestion to pursue the use of the continuous maintenance model available from ANSI (as opposed to the current periodic maintenance model that is used).

» Plans to revise the section on NCIP in the existing NISO publication, *The RFP Writer's Guide to Standards for Library Systems.*

» Creation of a checklist to identify vendors who have implemented specific messages of the protocol.

» A desire to streamline the profile template.

The really important news, however, is that the group identified an NCIP Core Message set consisting of nine primary NCIP messages. The group believes that the NCIP Core Messages support more than 80% of the current functionality for resource sharing and self-service applications. Responding applications need only implement this set of messages to support basic NCIP

functions, reducing the effort needed to become NCIP compliant. Initiating applications may still use additional messages, but the definition of a core set of messages will increase interoperability and enable librarians to expect support for a common baseline workflow.

The messages in this set are: Accept Item, Cancel Request Item, Check In Item, Check Out Item, Lookup Item, Lookup User, Recall Item, Renew Item, and Request Item.

The group also agreed to clearly label the original NCIP profiles as theoretical exercises demonstrating possible interoperability, not actual NCIP usage. These original profiles should not be implemented any longer, as they were intended only to provide conceptual support for NCIP version 1. The new labeling should reduce confusion for implementers and encourage consolidation of profiles among vendors. A new Core Message Profile will be drafted, based on the workflows and transactions currently implemented by vendors. Additional product profiles may be written to document unique functionality and message sets or other additions to the core messages.

Monthly NCIP conference calls will be held on the third Thursday of each month and a tentative date was selected for a fall meeting. Librarians and vendors who wish to learn more about the NCIP Implementers Group are invited to contact me. | CR |

GAIL WANNER <gail.wanner@sirsidynix.com>, is Chair of the NCIP Implementers Group, and Resource Sharing Specialist at SirsiDynix.

JONATHAN GRAY

5th Communia Workshop: Accessing, Using, Reusing Public Sector Content and Data

Across the world there is a growing recognition of the social and commercial value of public sector content and data, be that the text of laws, the holdings of public museums, or the geospatial and environmental information collected by government agencies. The 5th COMMUNIA workshop, held March 25-27, 2009, brought together researchers, policy-makers, stakeholders, and representatives from across Europe, the United States, and Australia for two days of talks and discussions focused on unlocking the potential of public sector material. The meeting was co-organized by the Open Knowledge Foundation and London School of Economics and funded by the COMMUNIA project, an EU policy network looking at the digital public domain.

The workshop started with a keynote talk from Tom Watson, U.K. Cabinet Office Minister for Digital Engagement and Civil Service Issues. Watson discussed his work with the Power of Information Taskforce, which was set up in March 2008 to examine how the U.K. government can improve the way it publishes non-personal information and what it can do to catalyze and support innovative re-use of the material it produces. He alluded to the Taskforce's Show Us a Better Way competition which received hundreds of ideas for how public information could be re-used in new web applications and services.

Public Sector Information Re-use

The first day was comprised of three sessions examining the social and economic value of public sector material, legal issues surrounding the re-use of official content and data, and technical practices and policies regarding the publication of public information. Representatives from public bodies—including the UN's World Food Programme, the European Commission's Information Society and Media Directorate General, and the U.K.'s Office of Public Sector Information (OPSI)—gave presentations on relevant work at their institutions. In addition, companies and charities providing web-based services based on public information spoke about their experiences and requirements.

On a European level, the 2003 EU Public Sector Information (PSI) Directive encourages member states to adopt legislation and policies which allow PSI to be re-used. Luis Manuel Ferrão of the wherever possible, and that copyright be exercised in a way that facilitates re-use. Brian Fitzgerald, Barrister and Professor at Queensland University of Technology, gave an overview of Australia's National Information Strategy and urged European countries to follow the OECD principles.

Many European countries are responding to the demand for information to be published in a way which makes it re-usable as well as accessible. Carol Tullo, Director of the Office of Public Service Information (OPSI), spoke about the U.K. government's research into "simple licensing" and the importance of making legal statements both easy to understand and machine readable.

> Many European countries are responding to the demand for information to be published in a way which makes it re-usable as well as accessible.

European Commission gave an overview of recent developments related to the Directive and the research behind it, indicating the discrepancy between the commercial exploitation of PSI in the U.S. and in Europe. Though the Directive has been a driving force for making PSI discoverable and re-usable, some participants such as Mireille van Eechoud of IViR expressed concerns that it was not sufficiently strong or explicit.

Going Open Internationally

On an international level, the 2008 Organisation for Economic Co-operation and Development (OECD) *PSI Principles* recommend that PSI and government funded material be made available free of charge She also discussed OPSI's work to convert their holdings from formats such as PDF to "mashable" formats such as XML, and their engagement with communities interested in re-using PSI and standards organizations, such as the World Wide Web Consortium. Ton Zijlstra spoke about his work on open government data in the Netherlands, commissioned by the Ministry for Interior Affairs, and the value of soliciting for input from technical communities interested in re-using PSI. James Love of Knowledge Ecology International also argued that official bodies should hold public consultations about the way in which data is collected, stored, and disseminated. Brian Hoadley of the U.K.'s DirectGov gave an overview of plans to support something like BBC

Backstage to support innovative re-uses for government material outside of government.

Cultural Heritage Uses

The second day focused on public sector content and cultural heritage institutions. There were talks on relevant legal issues from intellectual property experts at WIPO and the British Library. Tom Moritz of the Internet Archive emphasized the importance of open access to data underlying scientific publications. Edward Betts of the Open Library spoke about the difficulties in harmonizing bibliographic metadata in their project to create "one webpage for every book." There were several presentations on the use of open licenses for digital collections—including from the U.K.'s Victoria and Albert Museum and Germany's Bundesarchiv.

Speakers contributed 41 detailed recommendations to governments and public bodies on making public sector material available for re-use. Participants drafted a statement for which signatures are currently being collected. | CR |

JONATHAN GRAY <jonathan.gray@okfn.org> is Community Coordinator at the Open Knowledge Foundation (www.okfn.org), a not-for-profit organization which aims to promote open knowledge in all its forms—"from sonnets to statistics, genes to geodata." He studied Philosophy at Corpus Christi College, Cambridge University, Social Sciences at the Open University and is currently doing research in the German department at Royal Holloway, University of London.

RELEVANT LINKS

Communia Project
communia-project.eu

The Open Knowledge Foundation
www.okfn.org

London School of Economics
www.lse.ac.uk

Copyright in the Knowledge Economy

One report cited by speakers at the 5th Communia Workshop was *Copyright in the Knowledge Economy*, a green paper issued in 2008 by the Commission for European Communities. The paper was intended to foster a debate on the role of copyright in dissemination of information for research, science, and education, particularly as needed in a "single market" of the European Union. The authors looked at the perspectives of publishers, libraries, educational institutions, museums, archives, researchers, people with disabilities, and the public at large. Rather than making specific recommendations, the report lays out the current environment and related issues and then asks questions about potential changes, especially in the area of exceptions to copyright limitations. Although focused on needed changes in the existing European copyright legislation, the report raises questions that are relevant beyond Europe.

The green paper points out a number of problem areas:

» While libraries are given a number of reproduction exceptions, their ability to produce digital copies of materials in their collections and deliver them to users, especially in a remote access environment, i.e. not accessed on the library's premises, may be restricted.

» Is copying related to preservation activities sufficiently permitted for libraries' needs? For example, is digitization, which alters format, allowed? And since the exception that might cover this applies specifically to libraries, are all other entities prohibited from copying related to preservation, without the copyright holder's permission?

» The regulations for handling of orphan works vary country to country, if they exist at all. A 2006 recommendation encouraged solutions at the national level for what constitutes a diligent search, rights clearance mechanisms, and principles for related databases. But this is a cross-border issue, so a more harmonized approach may be required.

» While there is a copyright exception for disabled persons, it allows for payment of compensation to the copyright holder, which can be a problem, especially when added to the cost of converting information to a usable format. Some countries have limited the exception to visual or audio impairment disabilities only. And the exception does not appear to apply to databases.

» Although the European Directive specifically mentions distance education in its exception for teaching and research, other provisions do not effectively accommodate the requirements for providing e-learning. Some countries have limited teaching reproduction to analog only (no digital copying). There are also restrictions that could require the students to be physically on the educational institution's premises when using allowed reproductions. The scope of what constitutes an "educational institution" also varies from country to country. The accommodation for research is not as clearly defined as for education. Requirements for licensing compensation can be too vague or too restrictive depending on location.

» The Internet has created a whole new cadre of content creators who need copyright protection. They also need direction on the allowable use of others' content in sharing and creating transformative or derivative works (such as mash-ups). The European Directive currently makes no exception for such transformations.

Comments submitted on the Green Paper are being reviewed and legislation change recommendations may be forthcoming. The paper along with other related material can be viewed at: http://ec.europa.eu/internal_market/copyright/copyright-infso/copyright-infso_en.htm

RENEE REGISTER

OCLC Symposium for Publishers and Librarians on Metadata

OCLC hosted a Symposium for Publishers and Librarians on March 18-19 focusing on the challenges and opportunities facing both communities in metadata creation, enrichment, maintenance, and distribution. Representatives from libraries, the publisher supply chain, and organizations supporting these communities participated, including staff from Hachette Book Group, Taylor and Francis, AAUP, R.R. Bowker, BISG, EDItEUR, Serials Solutions, the National Library of Medicine, NISO, The Ohio State University, R2 Consulting, Ken Chad Consulting, and Informed Strategies.

The Symposium held at OCLC's Dublin, Ohio, campus consisted of highly interactive panel and breakout discussions and was intended to open further dialogue and opportunities for collaboration between the publisher supply chain and libraries. It was especially important to the planners that the Symposium initiate specific follow-up activities in support of this goal. Two major areas of discussion guided the conference agenda:

1 Exploration of current models for creation, enrichment, distribution, and maintenance of publisher supply chain and library metadata:

» Are they sustainable?

» What are the common needs? What needs are specific to each community?

» Are they subject to duplication of effort across communities?

» To what extent are they currently shared and interoperable?

2 Consideration of new paradigms for metadata creation, enrichment distribution and maintenance that:

» Are more easily shared and interoperable

» Start upstream and allow metadata to evolve over time

» Engage multiple communities in the metadata lifecycle

The Symposium exceeded the planners' expectations with a striking openness from attendees in sharing current work flows and problems and the generation of exciting proposals for collaborative exploration of solutions and new models. After a day and a half of engaged and productive conversations, the symposium closed with a commitment from OCLC to host another symposium within the next year and a lively group discussion on the following questions:

» What have we learned?

» What should the symposium look like next year?

» What are our next steps?

We learned a lot about both the differences and the common ground between metadata for libraries and for the publisher supply chain. Library issues around metadata are not necessarily on publishers' radar and vice versa. We began to analyze how MARC and ONIX structures may actually provide a representation of the misalignment between libraries and publishers and how the way we structure and share metadata plays a part in discouraging leverage of intellectual work

across the communities. We identified the importance of including authors and end users in discussions of metadata. There was agreement on the importance of keeping the conversation moving and of sharing proposals to vet ideas for new models. Finally, since the problem can seem too overwhelming to tackle, it is important to identify subsets of problem areas where we can accomplish change. The CIP (cataloging in publication) process of library metadata creation from publisher metadata and the International Standard Name Identifier (ISNI) were identified as two places to start.

The next symposium (and interim events) should engage a broader spectrum of stakeholders including:

» More publisher representation

» Representation from publisher production and content management systems

» Library of Congress representation, especially from the CIP program

» ILS representation

» Public library representation

Areas of interest for the coming months and for the next symposium should include:

» The future of ONIX for next generation cataloging models

» Reuse of metadata from different systems and sources

» Collaborative models and work flows

» New business models

» Open source for exchange of bibliographic information

» Review of proposals for new models solicited and collected throughout the year

» Implications for ILS systems in new models

Specific next steps for short term action include:

» Plan ongoing events to continue dialogue and share work

» Initiate collaborative work on a data model of the chain to better understand data needs and data flow

» Identify requirements for each sector, i.e., what data elements are needed for which applications/uses

» Expose publishers to the entire value chain and evaluate data needs by community—library, vendor, end users

» Analyze the importance of authority work in various contexts

» Explore the use of ISNI

» Explore new models for the use of ONIX in CIP record creation

» Explore possibilities for use of XML wrapper

» Explore subject work across communities

» Explore how to make salient schema available and accessible for wider use

» Analyze the data flows that subject metadata support

In support of next steps, OCLC plans to host frequent webinars to facilitate continued discussion between stakeholders and will help facilitate the creation and maintenance of working groups to address the action items above. OCLC and NISO sponsored a follow-up study on the metadata life cycle and workflow, which is reported on page 33. | CR | doi: 10.3789/isqv21n2.200911

RENEE REGISTER <register@oclc.org> is Global Product Manager, OCLC Cataloging and Metadata Services.

+ Metadata Resources

Understanding Metadata
www.niso.org/publications/press/
UnderstandingMetadata.pdf

A Framework of Guidance for Building Good Digital Collections – Metadata Section
framework.niso.org/node/24

The Dublin Core Metadata Element Set, ANSI/NISO Z39.85-2007
www.niso.org/standards/z39-85-2007/

The Library of Congress Cataloging in Publication Program
cip.loc.gov/

Metadata Encoding and Transmission Standard (METS)
www.loc.gov/standards/mets/

PREMIS Data Dictionary for Preservation Metadata
www.loc.gov/standards/premis/

PRISM: Publishing Requirements for Industry Standard Metadata
www.prismstandard.org

RELEVANT LINKS

Symposium website
www.oclc.org/publisher-symposium/

Transforming Metadata (Against the Grain)
www.against-the-grain.com/TOCFiles/
Standards_v21-1.pdf

NW [NOTEWORTHY]

Cost of Resource Exchange (CORE) Protocol Trial Begins April 1

NISO's Cost of Resource Exchange (CORE) working group and the Business Information Topic Committee have issued the draft standard, NISO Z39.95-200x, *The Cost of Resource Exchange (CORE) Protocol*, for a one-year trial from April 1, 2009 through March 31, 2010. The CORE Protocol defines an XML schema to facilitate the exchange of financial information related to the acquisition of library resources between systems. The two systems may be within the same organization, e.g., an ILS and an ERMS, or from two different organizations, e.g., a subscription agent and a library.

The standard also describes three use cases:

1. Exchange of information for a single order

2. Exchange of information for a single product

3. Exchange of information for all orders for all products

A number of data scenarios are offered to show the steps of the CORE data transfer, establish requirements for the data transfer mechanism, and delineate expectations of the various systems, specifying who is responsible for what.

The Draft Standard For Trial Use (DSFTU) phase allows the standard to be tested and validated by implementers and the marketplace prior to final publication. The trial work will also serve as an opportunity for the information community to provide the CORE Working Group and NISO with feedback on the draft, including the identification of any errors or omissions that may arise during the trial. The intent of this period is to discover and subsequently address such issues, with the goal of creating a more perfect CORE standard.

The Working Group is actively soliciting trial users. Trial participants will be asked to implement the CORE protocol in their own organization (or with another trial implementer), participate in a discussion list during the trial to share experiences, and provide feedback on any needed changes to the protocol prior to final issuance of the standard. The Working Group will be available during the trial to provide guidance and answer questions.

For more information and a copy of the draft standard and schema, visit the CORE Working Group webpage (www.niso.org/workrooms/core/). ∎

WE NEED YOUR HELP!

To ensure that the standard is effective, easily implementable, and functional, the CORE Working Group is looking for trial participants who will be asked to implement the CORE protocol in their own organization (or with another trial implementer), participate in a discussion list during the trial to share experiences, and provide feedback on any needed changes to the protocol prior to final issuance of the standard. The Working Group will be available during the trial to provide guidance and answer questions. Please visit www.niso.org/contact to indicate your interest and provide contact information.

eXtensible Catalog Project Releases Two Toolkits

The eXtensible Catalog (XC) Project, working to develop a set of open-source applications for revealing library collections to users, has issued its first software applications: the OAI Toolkit and the NCIP Toolkit.

The OAI Toolkit (code.google.com/p/xcoaitoolkit) will export data from an integrated library system (ILS) or other repository and convert and store it in an OAI-PMH (Open Archive Initiative – Protocol for Metadata Harvesting) compliant server where the data can then be harvested and shared. In addition to being accessible by existing OAI-PMH harvesters, the vision is that this data would be exposed to the forthcoming XC Metadata Services Toolkit and thus available to other planned services in the XC suite.

The NCIP Toolkit (code.google.com/p/xcnciptoolkit) is intended to act as an intermediary between a NISO Circulation Interchange Protocol (NCIP) client and an ILS. The toolkit translates NCIP authentication requests, live circulation status lookups, and circulation requests into the ILS proprietary interface and translates response data back into NCIP formats. The XC Project plans to include NCIP toolkit drivers for a wide range of popular commercial and open-source integrated library systems.

The XC project (www.extensiblecatalog.org), when completed, expects to enable library content to be revealed through other web environments, such as the content management systems that underlie web portals and learning management systems. ∎

New ISO TC46 Publications

ISO 8459:2009, *Information and documentation – Classification of bibliographic data elements for use in data interchange*, is a revision and merger of the five separate parts of this standard previously issued between 1988 and 2002. The consolidated standard "specifies and describes data elements required in the interchange of data between bibliographic systems" to serve as a foundation for enabling interoperability.

ISO/TR 28118:2009, *Information and documentation – Performance indicators for national libraries*, is a new technical report that provides indicators to analyze the performance of national libraries for their unique tasks and services. Included guidelines address coverage of the national imprint, speed, and comprehensiveness of the national bibliography, efforts to preserve the national documentary heritage, and international involvement of the library.

ISO 28500:2009, *Information and documentation – WARC file format*, is the first edition of a standard that describes a format for concatenating multiple date objects, such as the multiple resources in a website, into one long file. Although designed for web archiving, the format is also usable for more general applications. ∎

LC Publishes Understanding PREMIS Guide

Priscilla Caplan's February 2009 guide, *Understanding PREMIS*, provides an introduction and overview of *The PREMIS Data Dictionary for Preservation Metadata*, version 2.0, published by the Library of Congress in March 2008. The Data Dictionary defines the core preservation metadata needed to support the long-term preservation of digital materials. Caplan's guide describes the underlying data model and its entities, along with two sample dictionary entries, in less technical terms than in the actual dictionary document. An introductory section addresses whether you should be using PREMIS with your digitization project and which parts of the dictionary would be most important. The section on "PREMIS In Use" discusses the use of PREMIS with METS as well as what is "not" required for conformance. An appendix illustrates the PREMIS metadata for a particular TIFF image. The guide, which is also available in Spanish, can be downloaded free from the PREMIS website: www.loc.gov/standards/premis/. ∎

Launch of "Actionable ISBN" Using the DOI System

The ISBN International Agency and the International DOI Foundation have agreed on a way of including the International Standard Book Number, ISBN, in a DOI syntax in a standard way (known as the Actionable ISBN, or ISBN-A), thereby expressing the ISBN within the DOI system.

The ISBN-A and the ISBN are used in different systems for different purposes. The ISBN-A allows the ISBN (already widely used or trading physical products) to take advantage of new possibilities digital networks offer, such as:

» Links to a preferred quality-controlled internet destination where fuller descriptive information, additional or related content, or e-commerce options can be provided

» Variable licensing dependent on the user

» Locating the optimal fastest URL for downloading large files

» Dynamic tracking of digital-product sales

By definition, an ISBN-A identifies the same thing as the ISBN, and is assigned on behalf of the ISBN agency. ISBN-As do not automatically exist for every ISBN; they exist only when an appropriate DOI agency has registered them in the DOI System. Several ISBN agencies are also DOI Registration Agencies.

For more information, view the factsheet at: www.doi.org/factsheets/ISBN-A.html. ∎

> The NFAIS Best Practices were developed to fill that [standard] void as well as to reinforce the need for uniform bibliographic policies in the more traditional publishing process

NFAIS Releases Best Practices for Publishing Journal Articles

The National Federation of Advanced Information Services (NFAIS) has issued *Best Practices for Publishing Journal Articles.* In development for more than a year by a Working Group under the leadership of **Linda Beebe**, Senior Director, PsycINFO, and including representatives from primary and secondary publishing as well as from the library community, the document provides guidelines for bibliographic policies that apply not only to article-by-article digital publishing, but also to the more traditional article publishing processes.

"An increasing number of publishers are moving to article-by-article publishing," said Beebe, "but the protocols that are being used to deliver the content vary widely. Thus far, there has not been a commonly accepted standard for this type of publishing and this void has raised some serious issues for all of us. The NFAIS Best Practices were developed to fill that void as well as to reinforce the need for uniform bibliographic policies in the more traditional publishing process."

The need for the best practices document grew out of an NFAIS Roundtable discussion on the topic that was sponsored by the American Psychological Association/PsycINFO in late 2007. A group of interested information professionals from the publishing and library communities met to share their experiences in handling digital article-by-article publishing and they identified a set of common concerns that they believe needed to be addressed, such as the need to know when a specific journal issue is closed, what document is to be considered the article/issue of record, how to easily identify publishing gaps and duplicate articles, how to ensure that errata are not overlooked, how to avoid the use of diverse pagination across media (print, online) for the same article, and how to identify the length of an article in the absence of traditional pagination.

The first draft of the document was approved by the NFAIS Assembly in August 2008, but the Working Group revised the document in response to the many thoughtful comments that were supplied during the voting process. As a result the guidelines were expanded to apply to all journal article publishing processes and the revised document was approved on February 13, 2009. Beebe noted that NFAIS will now circulate this set of Best Practices to other industry organizations for discussion and possible further refinement. "Our hope," she said, "is that the final product will be an industry-wide set of Best Practices related to publishing journal articles in electronic form, particularly those released article-by-article."

The Best Practices document is available for free download at: www.nfais.org/Best_Practices_Final_Public.pdf. ∎

NIST Defining the Expanding World of Cloud Computing

The National Institute of Standards and Technology (NIST) has published a working definition for cloud computing that will serve as a foundation for a series of publications on the topic. The short definition developed by NIST scientists in collaboration with industry and government, is:

Cloud computing is a model for enabling available, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

The full definition document describes five essential characteristics, three delivery models, and four deployment models.

The first NIST special publication on the subject, to be issued in FY2009, will address the areas of cloud architectures, security, and deployment strategies for the federal government. Cloud computing is under consideration as a major component in the government's new information infrastructure and NIST has been tasked with evaluating cloud technology and advising on how it can be implemented effectively and securely.

A note in the definition document makes it clear that cloud computing is still evolving and that the definition, technologies, and approaches will continue to be debated as the NIST work continues.

The full working draft definition is available at: csrc.nist.gov/groups/SNS/cloud-computing/index.html. ■

Publishers Sign Up for the UKSG TRANSFER Code of Practice

Twenty-six publishers have now endorsed the United Kingdom Serial Group's *TRANSFER Code of Practice*. TRANSFER provides best practice guidelines and outlines responsibilities to ensure that journal content remains easily accessible in the event of a change of ownership. Signatories to the code include publishers both large and small, adding up to more than 8,000 covered journals.

"Librarians must be increasingly rigorous in assessing the merits of journals and journals packages for renewal or purchase," said Joan Emmet, NERL Program Librarian. "TRANSFER endorsement is a signal that a publisher understands its customers' needs and is committed to providing a good level of service even in complex circumstances."

The *TRANSFER Code of Practice* was developed by a cross-party working group to resolve problems encountered by subscribers when journals move from one publisher to another. Many critical issues, such as continuity of access during a transfer or perpetual ongoing access to archives, were previously a grey area in journal sale agreements, resulting in frustration for end users and librarians as key e-journals became temporarily or even permanently unavailable despite license terms.

> Libraries and their users benefit from minimal disruption during a journal title transfer—and publishers benefit from the simplified workflow and associated reduction in costs of a standardized process.

"The TRANSFER code has been extensively fine-tuned to balance the interests of its multiple stakeholders," said Ed Pentz, TRANSFER Working Group Chair. "Libraries and their users benefit from minimal disruption during a transfer—and publishers benefit from the simplified workflow and associated reduction in costs of a standardized process. We've also taken great care to protect publishers' competitive interests. The overall success of the Code depends on widespread adoption by publishers so we hope that many more will soon show their support for their customers by signing up."

For the text of the code, the list of endorsing publishers, or to sign up, visit the TRANSFER website: www.uksg.org/news/transfer/. ■

Developing Standards for Online Article-Level Usage Statistics

The Publisher and Institutional Repository Usage Statistics (PIRUS) project was established by JISC to investigate the feasibility of creating COUNTER type usage reports at the individual article level for online journals.

The final report, *Developing a global standard to enable the recording, reporting and consolidation of online usage statistics for individual journal articles hosted by institutional repositories, publishers and other entities*, defines a proof-of-concept COUNTER-compliant XML prototype called Article Report 1, and describes a range of scenarios for the report's implementation that cover the majority of current repository installations.

The project team also identifies specific recommendations for JISC, COUNTER, repositories, and publishers. Among the recommendations are: further tests with a larger volume of data to ensure the prototype is scalable, cost assessments and cost allocation models, an expansion of COUNTER's mission to include repository statistics, and the adoption of standard descriptions for article versions.

The full report is available from: www.jisc.ac.uk/publications/documents/pirusfinalreport.aspx. ■

Guidelines for Dublin Core Application Profiles

The Dublin Core Metadata Initiative (DCMI) has approved *Guidelines for Dublin Core Application Profiles* as a DCMI recommended resource— material recommended for use by the DCMI community in support of their use of Dublin Core metadata.

The guideline, which revises the original November 2003 version, "explains the key components of a Dublin Core Application Profile and walks through the process of developing a profile." Application profiles specify the use of metadata in a particular application.

Using a simple profile example describing books and authors, the guideline explains how to define functional requirements, select or develop the domain model (i.e., what the metadata describes), selecting or defining metadata terms, designing the metadata record with a description set profile, defining the usage guidelines, and choosing encoding syntax. An appendix provides a primer on using RDF properties in profiles.

The guidelines are available at: www.dublincore.org/documents/profile-guidelines/ ■

A Major New Version of ONIX for Books

EDItEUR has issued version 3.0 of *ONIX for Books*, the first since 2001 that is not backwards-compatible with previous versions.

There are eight key areas of change in the new version:

» removal of elements that are deprecated from previous versions or made redundant with version 3.0;

» new provisions for describing digital products including integration with physical products;

» a different approach for handling of multiple-item products and series;

» data element groups to address the variety in publishers' marketing collateral;

» reorganization of elements for sales and distribution in international markets;

» use of the ISTC to relate different editions of the same text to a parent work;

» a record blocking method for more efficient updating; and

» new schema options.

Detailed documentation, schema definition, and code lists are available for downloading (www.editeur.org/onixbooks3.0/onix3.0.html) and an implementation listserv will provide subscribers with notification about any new or revised material. ■

NISO Initiates New Project on Single Sign-On Authentication

NISO Voting Members have approved a new work item on perfecting single-sign-on (SSO) authentication to achieve seamless item-level linking in a networked information environment. A new working group, formed under the auspices of NISO's **Discovery to Delivery Topic Committee**, will be tasked with creating one or more recommended practices that will explore practical solutions for improving the success of SSO authentication technologies and to promote the adoption of one or more of these solutions to make the access improvements a reality.

This work item is the outcome of NISO's new Chair's Initiative, an annual project of the chair of NISO's Board of Directors. NISO's current Chair, **Oliver Pesch** (Chief Strategist, EBSCO Information Services), has identified single-sign-on authentication as an area that would benefit greatly from study and development within NISO, with a focus on a solution that will allow a content site to know which authentication method to use without special login URLs in order to provide a seamless experience for the user. "By developing recommended practices that will help make the SSO environment work better (smarter)," said Pesch, "libraries and information providers will improve the ability for users to successfully and seamlessly access the content to which they are entitled."

This new work follows on NISO's February 11th webinar on this topic, where the issues and potential benefits of SSO authentication were looked at from library, authentication tool, and content provider perspectives. The webinar was the first step in addressing the issue of SSO authentication; the new working group will enable all these perspectives to come together to focus on the topic as a community.

In addition to forming the working group, NISO will be establishing an "interest group" e-mail list. If anyone would like to join the affiliated interest group, contact the NISO office at www.niso.org/contact. ■

Survey of JPEG 2000 Implementation in Cultural Institutions

David Lowe and **Michael Bennett**, two librarians from the University of Connecticut have published the results of a survey they conducted in 2008 on implementation of the JPEG 2000 standard (ISO/IEC 15444, *Information technology — JPEG 2000 image coding system*). 175 respondents involved in digitization from a variety of institutions (library, museums, government, consortia, etc.) answered questions regarding their use of the JPEG 2000 standards for still images—generally and for archiving.

The authors concluded that there were "several key areas that JPEG 2000's user community will need to have addressed in order to further enhance adoption of the standard." One issued noted was the lack of knowledge that JPEG 2000 offers a lossless compression option or lack of trust that it is truly lossless. Additionally, native support of the standard is not yet fully implemented in the most popular browsers. The full report and survey responses are available at: digitalcommons.uconn. edu/libr_pubs/19/ ■

STAY UP-TO-DATE ON NISO NEWS & EVENTS:
www.niso.org / news

SS [STATE OF THE STANDARDS]

In Development or Revision

Listed below are the NISO working groups that are currently developing new or revised standards, recommended practices, or reports. Refer to the NISO website (www.niso.org/workrooms/) and *Newsline* (www.niso.org/publications/newsline/) for updates on the working group activities.

WORKING GROUP	STATUS
Cost of Resource Exchange (CORE) Co-chairs: Ed Riding, Ted Koppel	**Z39.95-200x, Cost of Resource Exchange (CORE) Protocol** **Draft for trial use through March 31, 2010**
DAISY/NISO Standard Advisory Committee Chair: George Kerscher	**Z39.86, Specifications for the Digital Talking Book** **Standard revision in development.**
Institutional Identifiers (I²) Chair: Tina Feick, Grace Agnew	**Standard in development.**
Knowledge Base And Related Tools (KBART) *Joint project with UKSG* Co-Chairs: Peter McCracken, Sarah Pearson, Charlie Rapple	**Recommended Practice in development.**
Metasearch Initiative TG2, Collection and Service Descriptions Chair: Juha Hakala	**Z39.91-200x, Collection Description Specification** **Z39.92-200x, Information Retrieval Service Description Specification** **Draft Standards for Trial Use**
ONIX-PL (Publication Licenses) *Joint project with EDItEUR* Chair: Alicia Wise	**ONIX-PL, v1.0 issued by EDItEUR.** **Pursuing educational activities to promote adoption.**
Single Sign-on (SSO) Authentication Chair: TBD	**Working group being formed.**

Five-Year Review

The following published and approved NISO standards will be undergoing their periodic review beginning in 2009. Any users of these standards are encouraged to comment on them at: www.niso.org/contact/

DESIGNATION	TITLE
ANSI/NISO Z39.18-2005	**Scientific and Technical Reports – Preparation, Presentation, and Preservation**
ANSI/NISO Z39.19-2005	**Guidelines for the Construction, Format, and Management of Monolingual Controlled Vocabularies**
ANSI/NISO Z39.29-2005	**Bibliographic References**
ANSI/NISO Z39.84-2005	**Syntax for the Digital Object Identifier**
ANSI/NISO Z39.88-2005	**The OpenURL Framework for Context-Sensitive Services**

SUSHI

✓ READY

SUPPORT FOR IMPLEMENTATION

Schemas and Greatly Improved Supporting Materials
NOW AVAILABLE to Assist Adoption

Easy Access to COUNTER Reports

SUSHI is a protocol that can be used by electronic resource management (ERM) and other systems to automate the transport of COUNTER-formatted usage statistics. It can also be used to retrieve non-COUNTER reports that meet the specified requirements for retrieval by SUSHI.

The NISO SUSHI Standing Advisory Committee announced in November 2008 the approval and final release of SUSHI schemas (and related files) providing full support of Release 3 of the COUNTER *Code of Practice for Journals and Databases*. Notable in this latest release of the COUNTER *Code of Practice* is the requirement that content providers implement SUSHI as a means of delivering their reports (deadline: August 2009).

Standard, Schema, WSDL...

The SUSHI standard is the high-level framework in which the SUSHI Schema, SUSHI WSDL, and COUNTER reports operate. The SUSHI WSDL describes how the client and server sides of the web services transaction will interoperate. The schema describes the XML that is used to perform the SUSHI operation. A COUNTER XML report is the actual payload of the transaction.

With the final schemas and additional support now available on the SUSHI website, content providers can be confident about setting their development agendas for implementing SUSHI. Visit the site to find:

- ✓ Clear, graphical representation of the schemas
- ✓ Sample code to assist with implementation and testing
- ✓ Updated FAQs, including sections specifically for librarians and for developers
- ✓ And even more support documents, presentation materials, and other resources.

Available Schemas

Three supporting XML schemas are posted on the NISO website: two SUSHI schemas which are basically retrieval envelopes for the XML-formatted COUNTER report, and a COUNTER reports schema, which in turn creates an XML-formatted version of the requested report.

NISO

www.niso.org/workrooms/sushi

> *Let's face it…I'm not the tag I was yesterday. My read range is shortened, nobody in the RFID system will talk to me, and tomorrow is looking like a sick day.*

Not all RFID tags are created equal.

AVG READ RANGE (IN) vs **NUMBER OF DAYS***

3M
Tag Supplier C
Tag Supplier B
Tag Supplier A
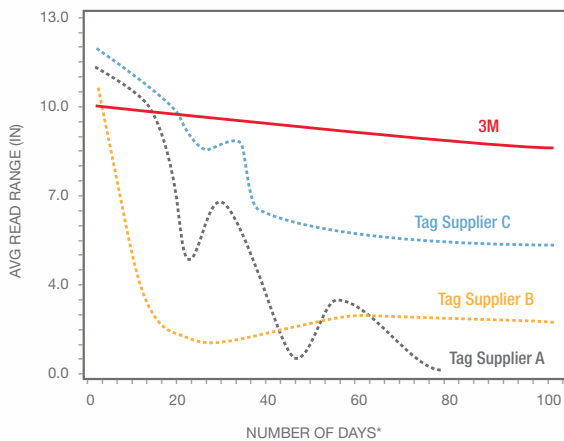
*Number of days in a controlled chamber with 95% relative humidity and a temperature of 149˚ Fahrenheit, and then testing their read ranges periodically over the length of the test. Test data available upon request.

How long will your RFID tags last?

3M™ RFID Tags are built for the demanding applications of today's libraries, where tags should last up to 15 years or more. At 3M, we have performed accelerated aging tests on our tags in a specialized laboratory to ensure that they stand the test of time. The results are clear – 3M's RFID tags not only provide more reliability, they last longer too. Because of this performance, we provide a warranty on our tags, guaranteeing them to last as long as the items to which they are attached.

To see insights from our research and experience, including our RFID 401 White Paper on tag quality and reliability, visit www.3m.com/niso to learn more.

3M