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# Electronic Resource Management Standardization — Still a Mixed Bag

by **Todd Carpenter** (Managing Director, NISO, One North Charles Street, Suite 1905, Baltimore, MD 21201; Phone: 301-654-2512; Fax: 410-685-5278) <tcarpenter@niso.org> [www.niso.org](http://www.niso.org)



**D**uring the **American Library Association Conference** in Washington, D.C. in June, I spoke on a panel with **Oliver Pesch** from **EBSCO** and **Bob McQuillan** from **Innovative Interfaces Inc.** about The Three “S”s of Electronic Resource Management (ERM): Standards, Systems, and Subscriptions. The meeting attracted more than 150 attendees and was one sign of the challenges faced by librarians who manage e-resources. Each year, the percentage of acquisitions budgets directed towards digital resources is increasing by several percentage points and has done so for most of the past decade. The majority of libraries currently dedicate more than 50% of their acquisitions budgets to digital content. A few librarians have even indicated that they are likely to move to an acquisition strategy of 100% digital in the coming years, one of many indicators of the growing importance of e-resources to both librarians and patrons.

Relatively new systems have been developed to store and curate the information necessary to order, process, and monitor electronic products, and a variety of standards and best practice projects addressing ERM have evolved. However, managing these resources continues to be problematic for a variety of reasons. In part, this is due to the complexity of digital products and the way they are packaged for sale. The rapid pace of transition away from print and toward electronic resources has not been matched in many libraries with an equivalent transition of the human resources and skill sets necessary to effectively manage these products. Also, the development, deployment, and population of management systems naturally lags behind changes in practice given their costs and complexity, both on the vendor and library sides. However, the majority of attendees to the **ALA** session (granted a very un-scientific study, although similar research supports this) had either implemented or planned to implement an ERM system.

What is it about digital resources that make them more complicated to manage than their print counterparts? While the item management lifecycle for a print product is linear and moves from selection through ordering to receipt, cataloging, circulation, and eventually de-acquisition, the lifecycle for digital resources is quite different. The electronic resource lifecycle is circular and iterative and contains many additional steps not relevant in the print world. Product selection can require both trial use and technical evaluation, because e-resources are often encompassed in their own information system. Many e-resources come bundled in packages that have to be evaluated as a whole as well as for their individual resources. E-resources are usually licensed, not sold like their print counterparts, so along with price consideration one must negotiate a license that matches the intended use, population to be served, and other terms. Providing access is no longer a matter of simply cataloging and then placing the resources on shelves. Electronic access includes IP address management, A to Z list management, authentication setups on both the library and publisher sides, possibly user ID setups, possibly OpenURL knowledgebase management, and whatever setup or policies are needed to ensure license compliance.

Not to mention all the issues of ongoing support, such as troubleshooting, downtime and other problem management, usage monitoring, user training, etc. And this entire process begins again at renewal time. The availability of titles within an electronic collection can change — even mid-subscription — requiring a re-evaluation of the whole product. And the previous year’s usage may necessitate license renegotiation, a process that usually can’t be relegated to a third party such as a subscription service agency.

The development of standards in this area largely began with a joint **NISO** and **Digital Library Federation (DLF)** workshop on Standards for Electronic Resource Management in Chicago in May of 2002. Out of that meeting and with additional work undertaken by the **DLF**, a report of the **Electronic Resources Management Initiative** was issued in 2004 that specified the requirements of an ERM system. That laid the foundation for the development of many of the ERM systems on the market today. It also led to a variety of other standards initiatives, often building on each other.

Several of those initiatives involved licensing, such as **ONIX for Publications Licenses (ONIX-PL)** that created encoded exchange of licensing terms, **NISO’s License Expression Working Group** that mapped the license syntax between **ERMI** and **ONIX**, and **NISO’s Shared E-Resources Understanding (SERU)** that provided guidelines for those who want to forego negotiated licenses.

A major advantage of the new electronic content systems was the ability to track usage. This led to the development of the **COUNTER Codes of Practice** to standardize what was counted and how. The success of **COUNTER** resulted in **NISO’s Standardized Usage Statistics Harvesting Initiative (SUSHI)**, a protocol to automate the harvesting of **COUNTER** data.

A significant new capability with e-resources was OpenURL linking. Another success story, OpenURL evolved into a formal standard (**ANSI/NISO Z39.88**) and generated another project, the **NISO/UKSG Knowledge Base and Related Tools (KBART)** initiative. They issued the first of their recommended practices earlier this year to improve the quality of OpenURL knowledge bases and their metadata. Another **NISO** project, **Improving OpenURLs Through Analytics (IOTA)** is looking at how to measure this metadata quality.

Systems-related standards efforts for ERM include **NISO’s Cost of Resource Exchange (CORE)** project to develop a protocol for exchanging financial information between an ILS and an ERM, and a project to develop best practices for Single-Sign-On Authentication so users don’t have to log in over and over.

Some of these projects have had tremendous success and are being rapidly adopted in the community. **SUSHI** and **SERU** are two examples whose success points to the underlying reasons why standards are adopted generally. An inefficient business process causes “pain” in the form of wasted time, money, or resources. In the case of **SUSHI**, it was the gathering of usage data from several dozen to as many as a few hundred content suppliers. For **SERU** it was the effort to negotiate

licenses, which becomes completely unscalable when the number of licenses reaches a few dozen. With libraries unable in this economic environment to add staff directly dedicated to these tasks, a different approach was necessary.

The “pain” relieved by using **SUSHI** (**ANSI/NISO Z39.93**) to systematically automate gathering usage data is not trivial. Before **SUSHI**, some libraries reported having at least one year-round FTE staff person dedicated to e-resources usage data gathering and consolidation. Release 3 of **COUNTER’s Code of Practice** included **SUSHI** compliance as a requirement. The wide market acceptance of **COUNTER** and the fact that the provision of **COUNTER**-compliant usage data is included in many content licenses have led to a rapid adoption of **SUSHI**. As of May 2010, there were more than 110 publishers who were compliant with **COUNTER Release 3** — and therefore **SUSHI**-compliant. Most major ERM vendors are incorporating **SUSHI** compliance into their systems to enable usage data to be easily imported. By reducing the costs of gathering and managing usage data, the **SUSHI** standard has proven a direct and quantifiable business value that has supported its adoption.

License negotiation is another point of significant “pain” for both libraries and publishers. Often, the license negotiation process can take longer than the agreement for the business terms of the sale, which not only adds to the total acquisition cost but also delays making the e-resource available to end users. Various approaches to streamlining negotiations have been tried, including the distribution of model licenses and the development by some libraries of their own standard license. The **Shared Electronic Resource Understanding (SERU)** project took a different approach, envisioning an environment of shared understanding and good faith. The **SERU** recommended practice (**NISO RP-7-2008**), released in the spring of 2008, articulates well-established and widely accepted common expectations between libraries and publishers and can be referenced in a purchase order in lieu of negotiating a license. The **SERU** registry of parties willing to use the guidelines with some or all of their e-resources lists more than 130 libraries, eight consortia, and 44 publishers and content providers. In addition, there is talk of “internationalizing” the document — since it is based solely on U.S. Copyright law — so that it can be applied in other countries where the underlying intellectual property protections are different.

Some standards may be of great interest but actual adoption is slow. **EDItEUR’s ONIX for Publication License (ONIX-PL)** is an XML communication structure for making licensing terms machine-readable. The terms can then be added to an ERM system and delivered to end-users in real-time and contextual with the e-resource being used. While the standard was published in 2008, it has seen little adoption — despite its significant potential — due partly to the complexity of turning a legal document into structured formats and terminology such as “Permitted,” “Not Permitted,” “Silent,” or “Interpreted.” The actual encoding, which required some knowledge of XML, has recently been simplified with the availability of the

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# Reponse to Backtalk — Geese, Nuns and Vengeance: The SkyRiver/OCLC Lawsuit

by Leslie Straus (President, SkyRiver Technology Solutions) <leslie@theskyriver.com>

As President of SkyRiver, I thank the editors of *Against the Grain* for the opportunity to respond to Tony Ferguson's "Back Talk" column this month. I have no caveats about who I'm speaking for. I came out of retirement from **Innovative Interfaces** a year ago to run a start-up company called **SkyRiver** because I was excited by the compelling mission that came with it — to introduce a choice for libraries that had been lacking since **OCLC's** acquisition of **RLG** in 2006. Since I started my career as a cataloger at **York University Libraries** in Toronto and later worked for **UTLAS**, there also was symmetry in being part of building a new bibliographic utility for catalogers.

Above all, I know that my friends at **Innovative** consider **Tony** to be a longstanding, valued customer. My hope is that **Tony** and others will consider this response to be part of a dialogue we should be having within our community. My goal here is to clarify several points for his and *ATG* readers' consideration.

First, I'd like to note that **SkyRiver** and **Innovative Interfaces** are separate and distinct companies. It is not a "parent child" relationship. There is, however, common ownership and there are licensing agreements between the two companies. The lawsuit could very well have been filed only by **SkyRiver**. However, as we pondered what we were dealing with, it became clear that it made sense to have **Innovative** join in as a co-plaintiff in the action.

Next, I want to emphasize that the lawsuit is entirely about whether or not **OCLC** has engaged in business practices which ultimately will be found to be illegal. It's **SkyRiver's** position that **OCLC** is in violation of antitrust laws and that those violations have injured **SkyRiver's** business. It's **Innovative's** position that **OCLC's** alleged antitrust violations extend further to impact the market for library systems. We don't believe that **OCLC's** non-profit status and stewardship of **WorldCat** immunize **OCLC** from obeying the law.

Please remember that this lawsuit isn't about who has the best technology or who has the better technical approach. **SkyRiver** is proud of the technology it uses that enables economy as well as nimble development, just as is **Innovative** of its systems, which include

cloud-based options. Neither plaintiff seeks **OCLC** technology through this lawsuit. Both plaintiffs believe that opening the doors to competition will lead to greater innovation and technological advancement.

Let's also be clear about how the lawsuit got started. The trigger was **OCLC's** imposition of punitive pricing for batch uploading of holdings against **Michigan State University** and **California State University**, Long Beach after those two institutions chose to move to **SkyRiver** for cataloging. The pricing clearly seemed intended to discourage other academic libraries from moving to **SkyRiver** and it did. It also drew attention to **OCLC's** heavy reliance on cataloging subscription fees for its revenues, which is where **Tony's** geese and nuns make for a particularly apt analogy. **OCLC** apparently decided that it needed to defend its treasure with a vengeance, even to the extent of damaging **WorldCat** by obstructing its members from adding holdings to it.

A brief **SkyRiver** history lesson may provide useful context here. The idea for a new, low-cost, highly functional alternative to **OCLC's** cataloging services arose from a series of conversations with librarians who were interested in having a choice of bibliographic utilities. From a business point of view, it was clear that to be successful, this product would need to achieve price points that would be truly attractive to libraries at a time when budgets have been stressed to the breaking point.

We came to market with our eyes open, knowing that changing cataloging services is not a step that libraries take lightly. However, we didn't anticipate that **OCLC** would introduce this additional roadblock and now that it was there, with no indication that **OCLC** would budge, we had no choice but to take action. We're simply not willing to stand by and see **OCLC** use its strangle-hold on **WorldCat** — a resource created by its members who continue to pay good money to use it — to create an unfair advantage for **OCLC's** other products and services.

Filing this lawsuit was not a trivial undertaking but we concluded that nothing less than a legal complaint had a chance. This assumption is validated by **OCLC's** official response to the lawsuit. Despite our

legal action, **OCLC's** press release of August 5, 2010 states that "[the lawsuit] will not divert us from our current plans and activities," many of which we cite as examples of unfair business practice.

Since the filing, it has been widely noted that there's an inherent conflict of personas in **OCLC's** current business practices — on the one hand, **OCLC** is ostensibly a member-based, *tax exempt* cooperative working for the good of the entire community and, on the other, **OCLC** is a vendor selling services to its own members in competition with companies like **SkyRiver**. It's easy enough to see which persona thought up the batch upload pricing for **MSU** and **CSULB**.

It's also relevant that **OCLC** pays its executives very handsome salaries and has lavished thousands of dollars on its trustees, many of whom are library directors. There are many in our community who think that **OCLC** is on thin ice on the trustee compensation issue. Can you imagine the uproar if **SkyRiver** was paying a university librarian \$50,000/year to sit on an advisory board, while having ultimate authority over the staff making library procurement decisions?

And it shouldn't be heresy to raise the issue of opening **WorldCat** to development by vendors other than **OCLC**. As it stands, **OCLC** claims ownership over and uses the **WorldCat** database to leverage its entry to the commercial ILS market. Why not have a world where the entire library community has open and fair access to **WorldCat** data? This in turn could inspire technological advances from many directions and that could lead to new companies that produce valuable products for libraries.

If the **SkyRiver** lawsuit threatens the existence of **OCLC** and **WorldCat**, surely that's ultimately due to the actions of the management and board of **OCLC**. 🌳

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*Author's Note: Marshall Breeding has created a Web page with links to relevant documents, articles and blogs that provide a good background for everything that has transpired to date: <http://www.librarytechnology.org/web/breeding/skyriver-vs-oclc/>.*

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open source **ONIX-PL Editor** tool. Who actually does the encoding — the publisher who delivers it with the resource or the library after acquiring the resource — is also a debated issue due both to resource constraints and to license interpretation. The use of third-party encoding has encountered push-back due to possible liability and indemnity issues. There are also cases where ambiguity with their license terms is preferred versus the clarity provided by an XML-encoded structure. Organizational needs differ in terms of the level of detail needed. However, some recent ERM projects, such as that of the **Statewide California Electronic Library Consortium (SCELC)** and the **JISC Collections Group** in the UK, are experimenting with the use of **ONIX-PL** and may set the stage for additional uptake. We are still in the process of determining whether the pain threshold of managing licenses badly — using paper in file folders — is less than the system costs of using and encoding the licenses.

There is also a chicken and egg problem about the creation of communication protocol standards,

such as the **ONIX-PL** or the **Cost or Resource Exchange (CORE)** standards. In order to be effective, a communication standard requires not just one implementer; it requires two. Like any conversation, talking with oneself isn't terribly productive. These communication protocols require multiple implementations to be successful. However, not all companies have the same business goals, development priorities or system models. While there is no one right or wrong approach, it makes coordinating development schedules difficult, which delays adoption. Again, the questions of whether the old "painful" way of addressing the problem is worth the investment in systems to overcome the problem is a balancing act that system suppliers need to weigh carefully.

Each of these ERM-related standards addresses a piece of the total ERM puzzle. As yet, there is no overall framework of standards for ERM in the way that libraries have become accustomed with their ILS. And there are still gaps in the e-resources cycle where no standardization has yet occurred.

Looking forward, **NISO** has chartered a working group to conduct a gap analysis of ERM-related data, standards, and best practices. The findings and recommendations of the working group, led by **Ivy Anderson** at the **California Digital Library**

and **Tim Jewell** at the **University of Washington**, will set the stage for the next phase of standards work in this important area. They are scheduled to release a report of their work by year's end and will be discussing their work-to-date at several fall meetings, including the **Charleston Conference**, the **LITA National Forum**, and **NISO's Electronic Resource Management Forum** in Chicago in October.

One thing that I stressed during the **ALA** presentation, and at many other times during the **ALA** conference, is that content providers and systems suppliers are very responsive to customer concerns and needs. If enough librarians demand systems and products that use license encoding and license transfer protocols, suppliers will adopt **ONIX-PL**. If determining cost-per-use calculations is taking far too long and requiring too much data entry and manipulation, ERM vendors could implement **CORE** to address their customers' problem. This process has worked well with **COUNTER**, **SUSHI**, and **SERU** adoption; the library customers were demanding the standards and system suppliers saw the value of implementing them. As the old saying goes, the squeaky wheel does get the grease, which is just as true with libraries and vendors as it is with your car and the mechanic. 🌳