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How Difficult Can It Be? Creating an Integrated Network Among Library Stakeholders to Promote Electronic Access

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Abstract

Tracking electronic access is a major challenge for libraries that cannot be ignored. Vast quantities of electronic resources continue to be acquired, and libraries continue to seek a way to keep up with the evolving electronic resource ecosystem.

Libraries are immersed in monitoring electronic resources for access performance, features, functionality, completeness of content, and usage. Publishers, providers, and vendors are immersed in their innovative business models. Users are immersed in their research needs. With these immersion silos, there is a lack of communication between stakeholders that creates an unsustainable ecosystem.

Currently, stakeholders are creating piecemeal patches that partially address access problems rather than an integrated effort of the whole community to incorporate interconnected solutions. These patches are not solving the problems. They are focusing on the symptoms, but not treating the cause. Why? The electronic access ecosystem is constantly in a state of flux. The system was simpler in times past. In this digital age, the creation, dissemination, and use of data is dynamic.

It is vital to the success of the electronic access ecosystem that there be interplay between all the stakeholders. One stakeholder cannot successfully manage electronic access by itself. There needs to be a concerted effort among all stakeholders for monitoring, identifying, and addressing electronic access issues. These relationships are complex. What's hindering the communication between stakeholders? What are we doing wrong and how can it be fixed? This problem can't be fixed overnight, but must be carefully orchestrated. Libraries need to take the lead in the development of integrated networks.

This presentation will address some of the networking problems that plague stakeholders and provide suggestions for improved networking integration. Audience participation will be sought for sharing problems and suggestions.

A View From the Library

As libraries continue to acquire e-resources at an exponential rate using flat or reduced budgets and limited staff, it is crucial that electronic access is made available to users expeditiously. Users expect right here, right now access with a quick resolution when access is denied. E-resources are persistently in flux and involve information that is asynchronously changing as updates become available.

Librarians want to provide discovery and access to electronic content that includes data that is constantly replenished, freshened, and free from barriers. They strive to keep abreast of the dynamic e-resource ecosystem where forces such as users,

technology, resources, economy, scholarly communication, and stakeholders drive change.

Stakeholders play an important role in the library e-resource ecosystem and include libraries, publishers, vendors, content providers, and users. In the field of science, an ecosystem is a biological community where organisms interact among themselves and with their physical environment and each organism has its own niche or role to play. The environment in which stakeholders exist behaves like an ecosystem where interactions occur. Successful interactions help to sustain the e-resource ecosystem.

The shift to e-content, the complexity of data elements, and the passing of dynamic data to relevant

stakeholders has a profound effect on the ecosystem. Data elements can include order and license information, MARC records, URLs, IPs, perpetual rights, embargo periods, title lists, content, EZproxy, activation, registration, and usage data. This data is essential for providing electronic access. However, this data is not always passed effectively between stakeholders.

The stakeholder ecosystem is a complex environment consisting of complex relationships where communication is essential. Poor communication among stakeholders can be detrimental to discovery and access. Timely, accurate, and reliable information may not always flow smoothly between stakeholders. Piecemeal patches may be implemented to resolve issues in which these quick fixes lump all problems together instead of handling each problem individually. However, problems are not handled effectively using this method. When this happens, incorrect or inadequate information may creep into the stakeholder ecosystem, leading to poor decision making. Breakdowns in communication and relationships occur and the ecosystem will be negatively impacted.

Stakeholders tend toward immersion in business practices for their individual institutions and interactions can be limited. Libraries may be focused on tracking and evaluating e-resources, the user experience, and maintaining the budget. Publishers may be focused on publishing, delivery of content, keeping operations efficient, and marketing products. Subscription agents may be focused on meeting goals, maintaining existing customers, and creating new customer bases. Users may be focused on accessing content 24/7, while content providers may be focused on aggregating, distributing, and delivering content. Pursuit of effective methods for sustaining the ecosystem can get lost amid individual stakeholder business practices and goals. This siloed environment breaks down the ecosystem necessary for successful e-resource management.

When siloed environments erupt, discovery and access cease to work well, users encounter a less than satisfactory experience, and librarians are tasked with determining if subscriptions to e-resources should be renewed. This causes the supply chain to break and all stakeholders are affected.

There are so many places where things can go wrong when attempting to share content within the supply chain and provide seamless discovery and access to

users. Any of these issues can cause disruptions to e-resource discovery and access:

- Sheer volume of e-content
- Complexity of data elements
- Delays in and lack of information
- Inaccurate metadata
- Poor quality of MARC records
- Restriction of access and limited functionality with copyright, licensing, embargo periods, and OA laws
- Inability to keep up with new technologies
- No good method for tracking content
- Changes in content, platform, publisher, URL, IP
- Publisher representatives constantly change
- Knowledge base is not current
- Technical support is not the best

To promote effective discovery and access in the ecosystem, stakeholders need to agree upon mutual goals to benefit the community and support the ecosystem. This will help to ensure that everyone will have access to the necessary information that is needed to manage the e-resource environment. Goals can be created that are characterized by mutualism. These goals can include:

- Consulting, communicating, and collaborating to facilitate discovery and access
- Supporting simplified workflows
- Building community where all can come together for a similar cause
- Delivering information that is free from disruptions
- Fulfilling common or shared missions
- Identifying mutual benefits
- Pooling strengths
- Breaking down silos

Appropriate actions to reduce or eliminate the disruptions to access can be taken. Actions should include active communication and regular interactions between stakeholders that will be mutually beneficial. Stakeholders have relied on traditional methods such as e-mails, spreadsheets, visits,

listservs, vendor online management systems, and publisher/provider websites for many years. These traditional tools are adequate, but the infusion of dynamic data is lessening their effectiveness. Over the years, other methods and standards have been used to interact and inform, some of which include NISO, KBART, Keepers Registry, EDItEUR ONIX, publisher alerts, and advisory boards. However, the complexity of the environment still demands more effective methods.

All stakeholders in the ecosystem have a shared responsibility in protecting the ecosystem and improving the content supply chain. Each stakeholder should try to be responsive to other stakeholder needs. This involves promoting the effective and consistent sharing of information. New relationships can be embraced, such as participating in advisory boards, building partnerships, collaborating on mutually accepted standards, giving presentations together, and conducting focus groups for mutual benefit.

A View From the Publisher

The world of publishing has changed dramatically since the move from print to digital. Publishers have responded to the shift in format by producing content in formats previously unexplored in academic and professional communication, in addition to supporting traditional scholarly journals and books.

With the increase in the number of products offered and the nature of supporting online content, there is an inherent challenge in keeping pace with the explosion of online product development and the dramatic shortening of the publishing cycle. There are many different “streams” of metadata to create, manage, and supply across the e-resource ecosystem (Full-Text XML, KBART title lists, marketing title lists, MARC records, usage reports, etc.).

At SAGE Publishing, metadata production involves half a dozen departments in a nonlinear process, which makes postproduction updates difficult and error-prone. Some internal challenges that are self-created by the publisher:

- When discrepancies arise between title lists (for marketing purposes) and KBART files (for distribution to KB vendors).
- Implementation of various access models (subscription, purchase).

- Invoices containing confusing product and package codes (that do not align with KBART file information).
- Missing or incorrect metadata or packages across the data streams.
- Shifting access, titles, or coverage.

These problems are further complicated when metadata makes its way out into the world. Additional challenges include evolving technologies; knowledge base and discovery index configuration; consortial licensing; indexing updates and vendor backlogs; and FTP delivery.

Publishers attempt to mitigate these problems using a variety of methods including multiple teams of frontline support and internal package audits. In addition, SAGE adheres to nationally recognized standards like KBART and engages in ongoing dialogue with the major discovery service providers to obtain indexing confirmation of all products. Critically valuable tools in this process include both FTP for delivery and sandbox accounts for regular audits. Forthcoming development of automated holdings feeds in 2018 in concert with the KBART Automation Working Group’s imminent recommended practice should also help resolve many of these issues.

A current recommendation to publishers’ customers is to report discovery problems to both the publisher *and* the discovery and ERM vendors directly. If vendors provide a case number, customers should share this with the publisher, so they can help coordinate resolution.

A View From the Subscription Vendor

EBSCO Information Services works with publishers to provide quality subscription services. With more than 98,000 publishers, 360,000 titles, and 16,000 e-journal packages, the challenge is managing the large amounts of information being transferred between EBSCO and the publisher, and EBSCO and the librarian. The transition from print journals to electronic has also created added workflows. In 1999, 88% of journal subscriptions were print, and 4% were electronic. In 2017, 71% were electronic, and 17% were print.

EBSCO employs more than 200 professional librarians to provide service and training to libraries. EBSCO also has 260 dedicated staff to work with

publishers; 130 of those work in the subscription division alone. EBSCO's Publisher Operations department is divided into three teams: Publisher Payables, Publisher Relations, and Publisher Support. In Publisher Relations, large publishers are assigned a dedicated rep who works with publishers at their offices and at conferences. They receive information on changing titles, pricing tiers, and access, as well as provide customer feedback to the publisher. EBSCO also hosts large publishers at their headquarters 10–12 times a year. Small to medium publishers will have a dedicated team that is familiar with the products, language, tax structure, billing requirements, and culture. Publisher Payables ensures that publishers are paid according to their agreed terms and in their preferred currency. Publisher Support ensures that lines of communication are operating and that information is updated in the system.

The Publisher Operations staff receives information in a variety of standards and ways: KBART files, FTP, e-mail, U.S. Mail. They also handle all e-journal package pricing requests and collect IP range information to send with orders. Publisher Operations maintains Publinx, a platform for publishers to monitor their sales through EBSCO. Publinx provides order and payment information, title lists, claims, and reports.

Librarians are provided information through the EBSCONET platform. The reports section is particularly robust. The Electronic Journal Access and Registration report provides all information on electronic journals licensing, registration, and access, as well as perpetual access rights. The License Details report provides information on archiving and Interlibrary Loan permissions. The EBSCO Bulletin of Serials Changes notates all changes to titles, including publisher changes, delays or discontinuations, and title changes.

EBSCO and publishers are always working on ways to improve subscription services and information flow. Providing quality service to librarians is paramount, and we continuously strive to do so.

A View From the ERM/Discovery Vendor

The library ERM/discovery systems vendor's role in the e-resource ecosystem is as an intermediary between the library and the thousands of content providers through which libraries can potentially access content. Vendors acquire, load, and enhance

metadata from content providers for use in electronic resource management and discovery software, facilitating library management functions and connecting users to library-accessible content.

Although the vendor has the responsibility of managing information about e-resources on libraries' behalf, vendors do not purchase the content from the content provider, potentially creating difficulties with troubleshooting metadata issues and even with obtaining data feeds in the first place. Content providers that are unaware of the role of vendors' products in getting library patrons interacting with their content may decline to provide them with metadata for knowledge bases (KBs) or discovery services, reducing the usefulness of their content to the library.

Examining the nature of the relationships between the stakeholders of the e-resource ecosystem, it quickly becomes clear that each part is dependent upon the others. It should be as easy as possible for content providers to help vendors in turn help their mutual customers, libraries, and vice versa.

There are many ways to scale the industry's ability to be effective at meeting the needs of libraries, vendors, and content providers (both large and small). From the vendor's perspective, some of the keys to improving the e-resource ecosystem are:

- Standards, best practices, and automation
- Transparency
- Active collaboration/involvement
- Industry knowledge

Standards, Best Practices, and Automation

KBART, Project COUNTER, SUSHI, ODI, and other standards and industry best practices give us a common framework to act within, shared documentation to guide us, and incentives to collaborate across the e-resource ecosystem. These are frequent topics of discussion in the industry as solutions because they are visible, tangible, and measurable. However, the industry cannot automate—and standardize—itsself out of communication difficulties, data transmission and quality issues, and advocating for cooperation among the stakeholders. At the same time, the qualities that make these standards and best practices work can and should be applied more broadly in the e-resource ecosystem.

Transparency

The easiest way for each stakeholder to have its needs met is to communicate openly and clearly with each other about what those needs are, what they can give to each other, and what constraints they may have. One of the most scalable methods for transparency for vendors and content providers is providing clear, public documentation.

Vendors should provide clear documentation on what data feed(s) are desired from the provider, what formats and fields are required, delivery methods, frequency, whom to contact, and so on, as well as information on how libraries use content providers' data in their products to manage and access their platforms and content.

Vendors look for documentation from content providers, too: publicly accessible title lists, product information, what data is available for vendors to use (e.g., full-text XML, MARC records, SUSHI documentation), and how vendors can get that data (e.g., contact information, links).

Librarians should make sure that content providers know about and work with their vendor(s), and verify coverage before licensing the content. For critical content, include provider/vendor data exchange in the contract. Librarians should also join vendor user groups and give feedback on problems with provider content, or suggestions of ways to make the content more useful.

Active Collaboration and Involvement

All members of the e-resource ecosystem should make efforts to actively collaborate with one another through user groups, content provider–vendor projects to improve discovery, and industry working groups and standards. At present, there are few people in the industry who understand, in detail, the technical and operational constraints and opportunities that each stakeholder has. The more the

different groups work together (and even competing members within the same groups), the more we as stakeholders understand the industry and its interconnectedness and can improve e-resource management and discovery.

Each part of the e-resource ecosystem has the goal of making sure that information is found and used by the people that need it. It is in vendors' interests to increase the usage of providers' content and ensure their success, just as it is in the best interests of content providers to work with vendors to make their content more useful to libraries. For the entire e-resource ecosystem to thrive, we need to work together on continual improvement of our individual relationships and how we work together as an industry.

Conclusions

Stakeholders should look beyond traditional methods for creating an integrated network among library stakeholders to enhance content delivery and access for the future. One way is to use dialogue to communicate. Information-seeking dialogues can promote good relationships and, in turn, aid in effective data transfer, which help to serve the community within the ecosystem. Another way is being open to all stakeholder feelings and experiences that bring an awareness of the challenges that others encounter as business practices are pursued in the ecosystem. Finally, opportunities can be sought for better collaboration in creating and promoting cross-industry standards for uniformity in data quality, such as using consistent data formats.

This is an exciting and challenging time for stakeholders. It is important to understand the necessity for common goals within the e-resource ecosystem. All stakeholders have a part to play in improving discovery and access for library users. Libraries, publishers, vendors, subscription agents, and content providers are well on their way to providing the best possible discovery and access experience for users, but there is still much work to be done.