

Optimizing the discovery experience through dialogue – a community approach

Based on a free UKSG webinar, *Optimizing the discovery experience through dialogue – a community approach*, January 2017¹

While end users feel increasingly comfortable with discovery services, librarians and content providers struggle with the inherent ambiguities. Librarians find it difficult to promote tools that they do not fully understand, while content providers are concerned that they cannot accurately measure the return on their investments.

Based on a UKSG webinar, this article aims to propose ways in which librarians and content providers can overcome some of these challenges through analysis and dialogue. The NISO Open Discovery Initiative is working with the community of discovery service vendors, librarians and content providers to make discovery services more transparent and to 'streamline the process by which information providers, discovery service providers, and librarians work together to better serve libraries and their users'.²



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The emergence of library discovery services created numerous ambiguities, leaving libraries, content providers and even discovery services a little uncertain about where they stood and at a loss as to the best way to proceed. Agreements between discovery services and content providers were frequently ad hoc and opaque.³ Discovery services were often confused about how content providers packaged their content. Libraries became even more puzzled regarding which content was and was not searchable via their discovery index. Questions arose about how to handle primary resources, e-books, open access content and more.

In January 2017 UKSG hosted a panel of librarians, content providers and a representative of NISO's Open Discovery Initiative (ODI), who elaborated on the challenges and potential paths for overcoming the ambiguities posed by discovery services. These solutions involve obtaining information through co-operation and dialogue across all stakeholders to improve the situation for all.

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Library challenges

Having invested much time and capital in purchasing individual collections and configuring discovery services, librarians are very much concerned about ensuring their collections are represented within discovery services. However, they lack the ability to adequately determine exactly what is indexed and how records are surfaced. In the era of domain-specific abstracting and indexing tools, it was relatively easy to access a reliable list of included publications and date ranges, as well as to decipher search options and criteria. With discovery services, libraries accept a significant degree of mystery related to what is being searched (e.g. which source publications, metadata only or full text, etc.) as well as how algorithms are finding, ranking, deduplicating and serving up results. The community of vendors and publishers that have contributed to the development of discovery tools have not, on the whole, responded enthusiastically to libraries' requests for greater transparency and data sharing. This lack of clarity adversely affects librarians' ability to provide reliable guidance in a digital information environment. Moreover, librarians are often uncomfortable promoting tools that are designed to look as if they are searching 'everything', when librarians are aware of the existence of gaps and of the uneven provision of enriched metadata (i.e. subject headings and abstracts) across content providers, causing some content to be unfindable across the vast breadths of central indexes.

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Library solutions

It is possible for librarians to remove some of the ambiguity through analysis and dialogue. They can speak to colleagues at peer institutions and survey users to establish best practices for optimizing the user experience. They can also request clarification from vendors and publishers regarding which content is included within discovery services and, for new acquisitions, make it clear that exposure of content within discovery services is critical. Librarians can assess and evaluate usage and overall impact and monitor performance on an ongoing basis, being attentive to the nature of search results and whether they align with expectations and, of course, they can stay abreast of emerging research.

Content provider challenges

Librarians are not the only ones who find the ambiguities inherent in discovery services to be concerning. For content providers, the return on investment (ROI) for participation in web-scale discovery is difficult to measure. They are torn between wanting to meet customer needs and expectations and being uncertain that the benefits of participation (e.g. increased usage) outweigh the costs of participation. For content providers, measuring ROI and managing opportunity costs are critical. If they cannot be measured effectively, then it is difficult to determine the impact of participation in discovery, which makes justification of investment difficult at best.

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One of the primary reasons that judging impact can be challenging is that it is often impossible to track the source of URLs stemming from discovery services. Usage, therefore, cannot be properly attributed and measured, and overall impact is unclear. Only recently have a few of these systems begun to populate their referring URLs with consistent and persistent identifiers that allow content providers to attribute usage to a discovery service starting point. Without those identifiers, content providers can only make assumptions as to how much traffic is coming to their site via discovery services.

33 It is also clear that in more than a few instances, the local implementation of discovery services has had a negative impact on usage. Often, this seems to be related to resource configuration in the local discovery system administrative module. In short, because of a lack of clarity and alignment between discovery services and the library's actual subscriptions, content is not being searched.

Content provider solutions

Despite the considerable ambiguity, there are steps that content providers can take to obtain useful information. They can incorporate routine market research and user testing, web analytics dashboards to measure user journeys, and compliance with relevant information standards into their discovery strategy. Content providers can keep tabs on the user experience of content discovery across diverse information channels (see Zhu and Kelley's article on Collaborating to Reduce Content Gaps in Discovery⁴ as an example) and monitor performance via several discoverability indicators, including metadata accuracy and usage reports from discovery services. This allows them to react quickly to anomalies and work closely with indexers to improve the library user experience.

Furthermore, in order to maximize the probability that indexed content will be discovered and therefore drive usage to their platform, publishers must make sure their full-text mark-up is of the highest quality and compliant with the latest standards. They need to invest in data governance and compliance routines/resources to be in a proactive position. They must respond to underperforming metadata, i.e. cleaning up and automating KBART feeds and conforming to the latest format requirements.

Often, publishers must prioritize systems or platform development which may have a less obvious effect on user experience but that have a more significant impact on users' discovery experiences – in particular, improvements to authentication and linking. Investing in back-end systems that store and distribute metadata can pay dividends in the future, having a lasting impact on the ability to govern an archive of high-quality metadata, leveraging automation wherever possible to ensure accuracy and timeliness. This can mean organizational changes to train and empower metadata owners, establishing a cross-functional taskforce and streamlining teamwork with discovery providers/indexers.

It is also incumbent upon library technology vendors to set internal standards and inform publishers how they can best optimize metadata for their specific features and software specs. Publishers should seek out regular opportunities for partnering with libraries, standards bodies and tech suppliers, like NISO's ODI, so that all stakeholders may work together towards iterative improvements in content discovery experiences and supply chain efficiencies. A standards body such as the ODI could, for example, co-ordinate the provision of resource configuration best practices to libraries so as to avoid some of the usage issues mentioned above.

More about the ODI

When stakeholders engage in discussion, everyone wins. The ODI was founded to foster dialogue surrounding these issues and others and to set standards in order to create a common language and improve transparency. The group, which includes librarians, content providers and representatives from all major discovery services, drafted a recommended practice whose primary goals are to:

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'Investing in back-end systems that store and distribute metadata can pay dividends in the future'

- define ways for libraries to assess the level of content provider participation and for discovery services to affirm how they use that content
- streamline the process by which content providers work with discovery service vendors
- define models for 'fair' linking from discovery services to publishers' content
- determine which usage statistics should be collected for libraries and for content providers.⁵

Moving towards these goals is beneficial to all stakeholders. When discovery service and content providers conform to the recommended practice, libraries can better grasp exactly which content is being covered in their central index of choice; the library moves closer to being able to provide an all-inclusive discovery service as more content providers contribute more of their content; the library receives better usage statistics to understand how patrons are using the discovery service, and the library can be more confident that content is being treated equally and fairly by their discovery service of choice.

For content providers, discovery services are of course another means of allowing users to find their content, thus driving more traffic to their platform. The more content they expose in discovery services, and the richer the metadata that they provide, the more findable and accessible their content will be.

For discovery services, moving towards conforming with the recommended practice will help reduce ingestion costs as they work with providers to standardize formats and processes. It will also make content providers aware that the discovery service treats all content fairly, thus reducing content providers' apprehension towards participation in discovery and allowing discovery services to attract additional content. For both discovery service and content providers, submission of a conformance statement increases their marketability with libraries who care about transparency and fair play.

Discovery services and content providers are asked to submit publicly facing statements⁶ regarding how well they conform to the standards set forth in the recommended practice. The intention is less to achieve perfection and more for the community to understand how discovery services and content providers operate and exactly who is providing what information to whom. These completed conformance statements are viewable on the NISO ODI website.⁷

But the ODI will not flourish on its own. It has the potential to transform the conversations that libraries, vendors and publishers have about discovery, as it offers shared vocabulary and expectations for transparency, as well as a structured system of conformance statements, through which vendors and publishers can describe the nature of their participation. The ODI offers smarter, better and more collaborative ways to better understand the web-scale discovery ecosystem. Only through communicating with each other can stakeholders obtain the knowledge to achieve their common goal of optimizing the research experience.

'The ODI offers smarter, better and more collaborative ways to better understand the web-scale discovery ecosystem'

Abbreviations and Acronyms

A list of the abbreviations and acronyms used in this and other *Insights* articles can be accessed here – click on the URL below and then select the 'Abbreviations and Acronyms' link at the top of the page it directs you to: <http://www.uksg.org/publications#aa>

Competing interests

The authors have declared no competing interests.

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