IJoL International Journal of Librarianship

ISSN: 2474-3542 Journal homepage: http://journal.calaijol.org

Making Open Resources Discoverable: Collaborative Approaches for Enhanced Access

Jia Mi

Abstract:

This article explores collaborative efforts to enhance the discoverability of open access resources. It highlights the pivotal role of librarians, educators, library system platform vendors, and publishers in improving access to these valuable resources. Through collective expertise and cooperation, these collaborative approaches aim to unlock the potential of open resources, benefiting researchers, students, and the broader academic community. By working together and leveraging their collective knowledge, these collaborative efforts promise to tap into the wealth of open resources, making them more accessible for professors, students, and the broader academic community.

To cite this article:

Mi, J. (2024). Making Open Resources Discoverable: Collaborative Approaches for Enhanced Access. *International Journal of Librarianship*, *8*(4), 17-29. https://doi.org/10.23974/ijol.2024.vol8.4.350

To submit your article to this journal:
Go to https://ojs.calaijol.org/index.php/ijol/about/submissions

INTERNATIONAL JOURNAL OF LIBRARIANSHIP, 8(4), 17-29
ISSN: 2474-3542

Making Open Resources Discoverable: Collaborative Approaches for Enhanced Access

Jia Mi, The College of New Jersey, United States

ABSTRACT

This article explores collaborative efforts to enhance the discoverability of open access resources. It highlights the pivotal role of librarians, educators, library system platform vendors, and publishers in improving access to these valuable resources. Through collective expertise and cooperation, these collaborative approaches aim to unlock the potential of open resources, benefiting researchers, students, and the broader academic community. By working together and leveraging their collective knowledge, these collaborative efforts promise to tap into the wealth of open resources, making them more accessible for professors, students, and the broader academic community.

Keywords: Open Access Discovery, Collaboration, Discovery Enhancement, Discoverability Enhanced Access

INTRODUCTION

In recent years, open access has revolutionized scholarly communication, making more scholarly resources and research articles accessible to everyone. According to 2023 Open Access Publishing Statistics (Curcic, 2023**)**, more than 50% of all academic articles have some form of open access, and this number is increasing every year. And 36% of all published academic articles had fully opened access without any restrictions or additional fees required during 2020. Open access provides numerous benefits. The wider availability of open access content not only increases citation and visibility but also generates greater public engagement and provides wider collaboration.

As publishers around the world have started promoting open access with makeovers of their publishing policies, special initiatives, partnerships, and transformative agreements, an increasing number of scholars are making a switch to publishing in these journals to enjoy the benefits open access offers. As more open access journals are being published, and as many journals transition to open access, academic librarians need to provide the most relevant resources to the users. Moreover, President Joe Biden's administration announced in August 2023 that, by the end of 2025, federal agencies are mandated to make papers describing taxpayer-funded work freely accessible to the public immediately upon the publication of the final peer-reviewed

manuscript. (Brainard & Kaiser, 2023). We can anticipate an even greater abundance of open access content in the future.

One common issue with open access materials is the difficulty in finding them through standardized methods. Many open access journals and publications are not included in standard abstracting and indexing services, and when they are, issues with versioning accuracy can arise.

The landscape of open access (OA) publishing contributes to the complexity of scholarly communication through various models. Green OA, or self-archiving, involves authors depositing preprints or post-prints of their articles in open access repositories, providing public access with potential embargo periods. Meanwhile, Hybrid OA, managed by publishers, combines open access and subscription models, with authors paying article processing charges (APCs) for immediate access, while other content remains behind a paywall. Gold OA encompasses fully open access journals, where the entire content is immediately accessible to the public without subscription barriers, often sustained by APCs paid by authors, institutions, or funders. Navigating this diversity reflects the evolving nature of OA, offering researchers and institutions various avenues for disseminating and accessing scholarly work, but also requiring a nuanced understanding of the intricacies of each model.

Open versions of research articles are often disseminated through various channels such as repositories, preprint servers, institutional repositories (IR), personal websites, and publisher's sites. These channels provide accessibility to different versions of the articles, including preprints, post-prints, open access versions on a publisher's site, and the final published piece known as the ‘version of record.’ Typically, these open versions are not directly linked to the journal's landing page, where paywalled articles are conventionally located. This can pose a substantial challenge for readers, as open access content may not be easily discoverable.

To make open access content more accessible and aid students and faculty in discovering these materials, academic librarians have actively created LibGuides. These guides curate various resources, offering tools and links to open access repositories, preprint servers, browser extensions, journals, textbooks, research papers, and other educational materials. While LibGuides can be valuable for accessing open access information, their effectiveness may be limited in addressing broader challenges related to discovery. Many users may not be aware of whether the articles they seek are open or paid, and this distinction may not be relevant to them. Additionally, the dispersed nature of open access tools across various platforms necessitates users to utilize multiple tools or install extensions, contributing to a fragmented experience. The lack of seamlessness in the user journey underscores the demand for more user-friendly solutions. There is a need for tools that streamline the process, intuitively guiding users to open access content without the complexities associated with multiple sources and installations, ultimately enhancing the efficiency of open access discovery

Library users need to discover OA resources alongside traditional library resources in the library discovery system so that they do not assume that OA resources are separate due to a difference in the quality of research or publishing standards. Library discovery platforms play a pivotal role in empowering academic users, offering seamless access to scholarly content from various disciplines.

While the literature extensively documents the favorable perception of open access among academic librarians, the deliberate integration of OA into academic library services, collections, and discovery systems has not received the same level of attention. Academic libraries often rely on commercial discovery indexes such as WorldCat Discovery, EBSCO Discovery Service, and Ex Libris Alma Primo. Libraries primarily depend on discovery vendors to include this content in their indexes, which limits their options for enhancing their open access content discoverability.

LITERATURE REVIEW

Open access brings new challenges to academic librarians in scholarly communication. How do we ensure our open access papers are properly discovered and represented? Furlough (2010) examined the opportunities that are available for researchers to adopt open access distribution and recommended that librarians, publishers, and other information professionals should design services that facilitate the entire research process and improve researchers' efficiency. He pointed out "OA offers new options for distribution, but the focus on self-archiving creates the potential for decontextualized research, disaggregated rights management, and a lack of version control. Attention to these issues, both from technology/standards organizations and policymakers, could help to ease this and potentially improve the prospects for open access adoption" (p.2643). Renaville (2016) focused on two aspects regarding open access and the Primo discovery tool. First, it allows libraries to seamlessly integrate free Green Open Access content from various repositories. Second, for PCI subscribers, Primo enables quick activation of Open Access repositories within PCI, ensuring easy discovery of their contents by end users. In summary, Primo enhances accessibility and streamlines the integration of diverse resources, making it a versatile tool for libraries. Renaville demonstrated that it is possible to directly harvest, index, and manage Green OA repository data in Primo and display those free contents next to the more traditional library collections. Chris Bulock, Nathan Hosburgh, and Sanjeet Mann (2015) discovered that open access collections managed by knowledgebase or discovery layer vendors may not receive the same level of care and updates as subscription packages managed by publishers. When open access collections are not carefully managed by a knowledgebase vendor, the responsibility falls on librarians to request updates for individual titles when errors are detected. According to their research findings, one of their respondents reported that OA-related issues constituted up to 15% of all e-resource errors within their library. John Dove (2017), a Directory of Open Access Journals Ambassador, discussed his efforts to encourage scholars to share their articles openly and highlighted the issue of some open content not being easily discoverable. In addressing this issue, Dove has developed a "Discovery Grid," which charts different "discovery pathways" in relation to where open content is meant to be accessible. This grid served as a tool to pinpoint potential discoverability challenges, like articles hosted on personal lab websites that might not be readily discoverable through library discovery services. He introduced this grid to the NISO Discovery to Delivery Topic Committee (D2D), where it is being utilized to pinpoint discoverability bottlenecks and potentially put forward "Recommended Practices" or standards. Dove also encouraged other organizations to engage in the dialogue and advocate for improved discoverability of open content.

In addition, poor or inconsistent metadata leads to poor discoverability (Edmunds, J., & Enriquez, 2020; Quarati, 2023; Zhu, 2023). The content providers frequently lack a commitment to enhancing the quality of their metadata supply, and concurrently, library management system

vendors do not consistently fulfill their promises. (Boscones & Staniforth, 2018). It is important to note that, even when open access metadata is readily available for content that meets indexing criteria, issues related to delivery can still arise within index-based discovery services. These challenges primarily stem from the limitations of link resolvers, which can struggle when attempting to establish links to hybrid journals (Bulock et al., 2015). Additionally, link resolvers tend to allocate limited attention to Green Open Access articles, further complicating seamless access and discovery (Pennington, 2016). Chris Bulock (2021) pointed out that "While library discovery systems offer great promise for delivering open access materials, they often fall short. Discovery tools merge multiple records together, and in the process show a preference for linking options that are less likely to successfully deliver open access full text" (p.68).

OPEN ACCESS RESOURCES DISCOVERY AT TCNJ

OA Collections in Alma CDI

In 2019, the TCNJ library transitioned to a cloud-based Alma platform and integrated it with Ex Libris Primo for discovery and delivery. Initially, all Open Access content in our Primo Central Index (PCI) was automatically activated (Ex Libris replaced PCI with its new Central Discovery Index (CDI) in 2020 and mapped all PCI activations to CDI). This abundance of open access content presented challenges such as an overwhelming presence of foreign language content, the inclusion of patent-related materials, and outdated resources. These issues resulted in less relevant search results, lowering the visibility of our local holdings and impacting the overall user experience.

To tackle these challenges and improve the search experience for our patrons, the library established a working group and strategically decided to deactivate the automatic activation of open access content. This involved deactivating patent-related materials, partial open access collections, institutional repositories, non-English materials, and Wikipedia.

Patent-related materials contain very specialized and technical resources, which may not align with the primary research interests of all other students. Additionally, our subject librarian has created a comprehensive LibGuides specifically tailored to assist users in effectively accessing patent information.

Partial open access collections have a mix of freely accessible and restricted content. Deactivating them could ensure a consistent and clear open access experience for users, avoiding confusion about access restrictions.

Institutional repositories often host diverse and localized content, and deactivating them may help prioritize resources with broader appeal and visibility.

Non-English materials are not the primary language preference of our user community. Focusing on English materials may align with the language proficiency and research needs of the majority of our students and faculty members, enhancing the overall user experience.

Wikipedia is a collaborative online encyclopedia that allows user-generated content. While it can be a valuable source of general information, it may not always adhere to the same scholarly rigor and peer-review processes as academic journals or authoritative resources. Deactivating Wikipedia helps maintain a focus on resources with a higher level of academic credibility.

Our decisions were driven by the goal of providing a streamlined and high-quality open access resource selection for users. The working group then reviewed the Ex Libris *CDI Collection List* (Ex Libris, 2023). It lists Alma collections that are available for activation. The list is updated monthly and published within the first 10 days of each month. We filtered the list by 'openaccess' under the 'Full Text Rights' column and then evaluated the open access collections based on the following criteria: full vs. partial open access; publication reputation; the primary language of content; nature of the content (institutional repository, journals, eBooks, etc.); and subject (interdisciplinary, subject-specific, etc.) Finally, we recommended activating collections of open access textbooks and big publisher interdisciplinary collections.

As of August 2023, there are 1,003 OA collections and 47 partial open access collections on the Ex Libris CDI Collection Spreadsheet (Figure 1). This marks a significant increase compared to the list from December 2019, which featured 256 OA collections and ninety-nine partial open access collections. Ex Libris has implemented an open access indicator for these resources, enhancing their visibility and accessibility within our library's catalog (Figure 2). Ongoing checks and reviews of OA collections are imperative. Our review process, conducted either quarterly or semi-annually, involves assessments led by both the Electronic Resources Librarian and Subject Librarians. For significant collections, a dedicated Collection Development Committee oversees the evaluation. Criteria for assessment include content relevance, currency, and adherence to our curricula. This structured approach ensures the ongoing refinement of our OA collections to meet the evolving needs of our academic community.

Collaborate with Librarians and Faculty to Identify OA Resources to Add to Discovery

To encourage our subject librarians to collaborate with faculty members in curating open access resources in Alma, we have introduced a Primo Central Discovery Index (CDI) Activation/Deactivation Form. This collaboration ensures that specialized open access materials align with the specific research interests and requirements of our academic community. When an open access (OA) resource is 'curated,' it undergoes several steps in our library. First, faculty members request to add OA resources, and subject librarians evaluate the resource for its relevance, credibility, and alignment with our academic programs. Additionally, depending on a resource's significance, if deemed valuable, we create a catalog record to enhance discoverability. For OA ebooks, the requestor provides the title, author, and URLs, and our metadata librarian matches and loads MARC records from OCLC. The same copy cataloging workflow used for firm-order ebooks is then applied to OA book titles. Additionally, curated OA databases are ensured to be included in our database list for easy accessibility by users.

Furthermore, recognizing that many of our esteemed faculty contribute to open access repositories or publish in open access journals, we've integrated them into our content curation efforts. By leveraging their expertise, we guarantee the inclusion of locally relevant open access

resources. As a concrete example, our cooperative efforts with subject-specific librarians and faculty have led to the incorporation of the following open access resources into our library's database listings:

American Religion Data Archive
African Women's Bibliographic Database
International Financial Statistics

In summary, our library's commitment to engaging librarians and faculty members in shaping our open access collections ensures that our resources remain attuned to the distinctive demands of our academic disciplines. This dynamic collaboration serves as a testament to our dedication to providing a comprehensive and tailored open access experience for our users.

Optimizing Open Access in Primo

Primo provides open access content in many resource types, such as journal articles, books, patents, and theses. In addition, Primo offers several open access features and integrations; some are enabled by default, while others must be manually enabled.

Open Access Facet*:* By default, Primo displays an "Open Access" facet in Primo's search interface. This allows users to filter search results to display only open access materials. For example, when users search for research articles, they can select the "Open Access" facet to narrow down results to freely accessible content. (Figure 3)

Open Access Indicator*:* The Open Access Facet works in tandem with an open access indicator in Primo's search results and item records. As discussed above, Ex Libris has implemented this OA indicator on records from the Central Discovery Index (CDI) OA collections, enhancing their visibility and accessibility within discovery. This indicator can visually inform users that a particular item is available as open access. That is, a small open padlock icon next to an article's title can indicate its open access status. Recent updates in Primo VE (September 2022 and November 2022 releases) mean that whether a collection in CDI is considered open access is now determined by the open access indicator at the individual link level.

The open access indicator is also marked using information embedded within MARC records. In Primo VE, open access status for relevant journals from the Alma Community Zone is determined by including specific MARC information in the 506 0_ field with subfields $f Unrestricted online access $2 star, applied automatically to records linked to the Directory of Open Access Journals (DOAJ) portfolios. It's crucial to input the $f and $2 subfields precisely as specified, without punctuation, for the open access indicator to appear. To designate open access in local Alma records, the same MARC information (506 0_ $f Unrestricted online access $2 star) should be added. Just like with Community Zone records, accuracy in entering the $f and $2 subfields, without any punctuation, is essential for the open access indicator to be correctly displayed. For Dublin Core (DC) records in Primo VE, open access status relies on the value in the dcterms.accessRights parameter. Recognition as open access requires this parameter to contain the value "Unrestricted online access." When externally managed data is loaded, a normalization rule can be implemented to add this specific value to the dcterms.accessRights parameter, ensuring

accurate assignment of the open access indicator to each Dublin Core record (Open Access Indication in Primo VE, n.d).

Users can look for the open access icon that will appear for an item identified as open access both in the search results and in the full item view. (Figure 2&4) Yet there are notable limitations in the Open Access Indicators and Open Access Facet within Primo/Alma. One key challenge is incomplete coverage, as not all open access records may feature these indicators due to potential issues with metadata or data enrichment processes. Moreover, the indicators in Primo/Alma may not consistently differentiate content available in open access repositories. The accuracy of these indicators is intricately tied to the quality and consistency of metadata, making meticulous metadata management essential. Challenges in integrating external systems, such as the Directory of Open Access Journals (DOAJ), can also impact the consistent application of open access indicators.

Activating Open Access Databases in Alma/Primo*:* We activated open access databases in Alma/Primo and followed a process to include prominent open access repositories directly in Primo's search scope. This involved leveraging the CDI activation process as described above. Specifically, we activated full-text collections with portfolios in Alma, linking Primo to well-known open access repositories such as arXiv, PubMed Central, DOAB, and DOAJ.

To elaborate, the CDI activation process entails associating Alma's records with the corresponding portfolios in CDI, thereby ensuring seamless integration. By activating these collections and portfolios, we enabled Primo to extend its search beyond our local library holdings to encompass valuable content from these authoritative open access sources.

Unpaywall Link Resolver Integration: Unpaywall, a valuable service, curates open access content from over 50,000 publishers and repositories worldwide, contributing to the accessibility of various open content types. By activating Unpaywall API through Alma configurations, we have significantly expanded accessible OA content, offering users legally available, full-text versions of articles. This enhancement improves the discoverability of open access materials, particularly Green OA content, providing users with a seamless and improved discovery process in Primo. (Figure 5)

However, there are important limitations to note. Unpaywall, being a third-party database, may occasionally feature incorrect links or links to non-open access content. While it significantly broadens access, it may not cover all resources, and the accuracy of open access indicators relies on data provided by publishers and repositories.

Preprints: Preprints are preliminary versions of research papers, reflecting an author's documentation and analysis of research results. They are shared with the academic community and the public before undergoing the rigorous peer-review process that characterizes formal scholarly publication in journals. It is important to emphasize this distinction when educating our students and informing the general public. Preprints are often shared by their authors in open access preprint repositories or on the author’s personal, institutional, or funding party’s websites. ArXiv, an open access repository established in 1991, houses over two million scholarly articles across various fields, including physics, mathematics, and computer science. While arXiv (1991) is the oldest and

best-known preprint archive, we have seen a rise in preprint archives in recent years, with PhilArchive (2009), bioRxiv (2013), chemRxiv (2016), psyArXiv (2016), medRxiv (2019) and many more, making the preprint more important than ever.

Since 2020, preprints have garnered substantial attention as a means to rapidly access research findings, particularly in critical domains like public health. SSRN (Social Science Research Network), a preprint platform offered by Elsevier, provides early access to research spanning 70 diverse disciplines encompassing both the sciences and humanities Elsevier has observed a significant surge in preprint publishing on SSRN, with a remarkable 148% increase in the number of researchers contributing since 2017. Concurrently, the company notes a substantial 50% rise in the downloads of these preprints on SSRN, reaching a total of 17.9 million downloads by the close of 2020. (Gordon, 2021). Another publisher, Clarivate, announced on **February 9, 2023, that they have** added the *Preprint Citation Index*™ to the Web of Science™ platform that provides nearly two million preprints from the arXiv, bioRxiv, chemRxiv, medRxiv, and Preprints.org repositories. Researchers can now locate and link to preprints alongside other trusted content in the platform. (Clarivate, 2023).

Preprints are becoming an increasingly important part of scholarly communication. I was approached by a math professor early last year who was inquiring about obtaining preprints of a research paper. He wanted to gain insights into the direction research was heading and check the data and findings that were not present in the final published version. I directed him to arXiv and also asked him to check the author's personal or institutional websites. He was thrilled to uncover valuable information that was not available in the published research paper.

In August 2023, Ex Libris expanded its offerings by introducing Preprint as a new CDI document attribute. According to Ex Libris," CDI document attributes provide specific information about the type of record. They do not replace but add value to the existing resource types. Their purpose is to display additional information about the record/item in the brief and full display and to allow filter/search on these attributes as part of the resource type facet." (CDI Document Attributes, n.d). The Preprint attribute is assigned based on data drawn from arXiv. Before the introduction of the new resource type for preprints in Primo, preprint articles were already included in the system but were not distinctly identified as preprints. They were typically categorized under broader resource types such as "Journal Article" or "Conference Paper." This lack of specific identification could result in challenges for users trying to differentiate preprints from final published versions or other scholarly content in search results.

This enhancement was seamlessly integrated into Primo, allowing users to identify preprinted articles directly from the library search (Figure 6). To configure document attributes, go to Alma Configuration > Discovery > Display Configuration > Configure Views, and select 'Display CDI document attributes' on the General tab to activate this feature. (Configuring CDI Document Attributes in Primo VE, n.d). While the introduction of the new preprint document attribute in Alma/Primo enhances the categorization of preprints, it comes with certain limitations. One notable limitation is the current sourcing restriction, as the preprint document attribute is specifically linked to records exclusively from the arXiv repository and may not recognize preprints from other repositories or sources. This limitation underscores the importance of

considering multiple sources when exploring preprints within Alma/Primo to ensure a more comprehensive coverage of this scholarly content

Managing Subscribed Serials Titles Transferred to Open Access

In the realm of library serials management, open access content holds equal importance to subscribed materials. While I sometimes receive notifications from publishers or vendors that a resource has transitioned from paid access to OA, these alerts are not consistently assured. There have been instances where titles previously included in our subscriptions have transitioned to OA, often occurring without prior notification. This transition can potentially introduce access challenges, particularly for titles that are heavily utilized by our patrons. Initially, there may be a lack of awareness about the shift, leading to confusion about content availability. Changes in authentication and URLs may cause temporary disruptions. We must promptly update configurations in our discovery systems. Users who saved bookmarks needed to update the URLs. Sometimes, delays in making content openly accessible can impact the user experience.

Given our practice of centralizing all subscribed electronic journals within our 'Local eJournals' collection in Alma, we've established two local collections named 'Local E-Journals' to centralize our institution's individually subscribed journals. Both collections share the public name 'Local E-Journals,' but they are distinguished at the backend: one as 'Local E-Journals (TCNJ Local E-Journals)' and the other as 'Local E-Journals (TCNJ Local E-Journals no proxy).' Currently, the 'Local eJournals' collections include around 582 journals in various formats, such as print, print+online, and online-only. Titles constrained by publisher restrictions, requiring a username and password for online access, are placed in the 'Local E-Journals (TCNJ Local E-Journals no proxy)' collection. Additionally, we've incorporated some open-access journals not available in repositories into this collection.

To systematically address the transition of journals from subscription-based to open access, we conduct thorough reviews twice a year, aligning with our renewal cycles in July and December. Leveraging EBSCO as our serial subscription agent, we use the Catalog report (Figure 7) and the E-Journal Access and Registration Report (Figure 8), available within the EBSCONET report section. This analytical approach has proven effective in identifying journals that have shifted from subscription-based to open access.

It is also worth noting that certain journals extend open access privileges for a restricted range of years. For instance, consider the case of the *Canadian Journal of Law and Society = Revue Canadienne Droit et Societe*, which grants open access to content spanning from 2011 to the present. To adapt to evolving journal conditions, we prioritize accuracy through continuous tracking and updating the holdings information. If a needed article isn't in our holdings, users can seamlessly request it via our Interlibrary Loan (ILL) services.

Information Literacy on Open Access Content

The rise of open access makes information literacy even more crucial. As we all know, many users begin their research on Google Scholar, a remarkably robust tool for accessing a wide range of scholarly materials, including open access resources. When a user enters a query into Google Scholar, the search results typically include free-to-read online versions of academic articles. It is important to educate our users that Google Scholar often locates multiple versions of the same article, it typically highlights the version of record first, which is usually behind a paywall. For instance, during a recent search, Google Scholar provided results for a specific article, and notably, it displayed six different versions of that article from various sources. Teaching users how to discern and choose among these different versions is necessary. This feature highlights the importance of carefully assessing search results to access the most relevant open access materials. (Figure 9). Additionally, we need to teach students that preprints have not undergone the rigorous scrutiny and validation associated with the peer review process. This distinction highlights the significance of understanding the peer review process when engaging with such materials. Information literacy should introduce the various types of open access models (e.g., Gold, Green, Hybrid) and their impact on the credibility and accessibility of scholarly content. It helps students to discern the reliability of open access resources, similar to their evaluation of print journals. In today's digital age, with a multitude of information sources, information literacy is essential for making informed decisions, conducting thorough research, and contributing meaningfully to academic and professional pursuits.

Evaluating Open Access Facets in Primo

It would be valuable to determine if our users have been actively utilizing the "Open Access" facet. Analyzing the Primo facet usage report for 2021, 2022, and 2023 through Ex Libris Analytics, we observe a steady increase in the selection of the open access option. The numbers have risen from 619 in 2021, 1,010 in 2022, and 1,518 by mid-2023. These trends indicate a growing user engagement with the "Open Access" facet in Primo, affirming its value and relevance to our users. (See Table 1)

To determine the percentage of open access articles that are peer-reviewed for a specific topic. I initiated a search in Primo using the keyword 'global warming' and obtained 62,055 results by filtering for ***articles*** and ***open access***. I further refined the search by selecting 'Peer-reviewed journals' as a filter. This refinement yielded 57,642 results, indicating that 92.8% of the articles related to 'global warming' within the open access category were peer-reviewed. The test results reflected our deliberate strategy and effort of selecting open access collections with a strong emphasis on publishers' reputations and peer-reviewed content.

Due to the dynamic nature of open access, I acknowledge that these tests were not exhaustive but provide an overall snapshot of the current stage. We are committed to continually enhancing our approach and achieving a more comprehensive and accurate representation of user engagement with open access content.

Collaborating with Vendors to Improve OA Discovery

The ongoing and fruitful collaboration between Ex Libris and its user community serves as a noteworthy example of a partnership built on mutual benefit. While librarians may not possess direct control, their collaboration with Ex Libris plays a crucial role in influencing the development of products and services. Librarians may provide insights into user experience, leading to improvements in the design and functionality of the user interface. This could include features for easier navigation, more intuitive search options, or customizable interfaces to meet diverse user preferences. This collaboration takes various forms, including active participation in organizations like ELUNA (Ex Libris Users of North America), engagement in specialized working groups, discussions through listservs, raising specific concerns or suggestions via salesforce tickets, and contributing to the Idea Exchange platform. These channels provide librarians and institutions with direct avenues to share insights, influence product development, and collectively shape the future of Ex Libris solutions. Academic librarians should collaborate with vendors to incorporate more reliable open access resources, introduce additional features, and contribute to the development of robust APIs, thereby enhancing the overall discovery experience for open access content.

CONCLUSION

Open access discovery tools serve a vital role in helping users find freely available scholarly articles. This task comes with its share of challenges and requires a deep understanding of the intricate world of scholarly communication. It also demands a grasp of the underlying infrastructure and an awareness of the diverse needs of researchers, publishers, service providers, and the wider public.

In this era of abundant open access resources, effective discovery plays a crucial role in empowering researchers, students, and the broader academic community. Collaborative efforts, involving libraries, professors, publishers, societies, and service providers, can enhance access to scholarly content. By fostering collaboration and tapping into collective expertise, open access discovery can be improved, ensuring seamless and comprehensive access to the wealth of open access resources available.

Librarians can indeed achieve better results by curating and adding carefully selected open access content to their library's discovery systems. By curating high-quality OA resources that align with the institution's academic programs and research areas, librarians can enhance the relevance and usefulness of the content available to students and researchers. This curated approach ensures that users have access to the most valuable and pertinent OA materials within the library's search environment, making it easier for them to find and utilize these resources effectively. It is a strategic way to enrich the library's offerings and support the needs of its academic community.

References

Curcic, D. (2023, June 2). Open access publishing statistics. *WordsRated*. https://wordsrated.com/open access-publishing-statistics/

Brainard, J., and Kaiser, J. (2023). U.S. to require free access to papers on all research it funds. *Science*, 377(6610), 1026-1027. https://www.science.org/doi/epdf/10.1126/science.ade6577

Furlough, M. (2010). Open access, education research, and discovery. *Teachers College Record*, *112*(10), 2623–2648. https://doi.org/10.1177/016146811011201005

Renaville, F. (2016). Open access and discovery tools: how do primo libraries manage green open access collections? In K. J. Varnum (Ed.) *Exploring Discovery: The Front Door to Your Library's Licensed and Digitized Content*, ALA Editions, (pp.233-256, 2016). ALA.

Bulock, C., Hosburgh, N., and Mann, S. (2015). OA in the library collection: the challenges of identifying and maintaining open access resources. *The Serials Librarian,* 68(1–4),79–86. https://doi.org/10.1080/0361526X.2015.1023690

Dove, J.G. (2017). Full discovery: What is the publisher's role? *Learned Publishing*, 30: 81-86. https://doi.org/10.1002/leap.1086

Edmunds, J., & Enriquez, A. (2020). Increasing Visibility of Open Access Materials in a Library Catalog: Case Study at a Large Academic Research Library. *Journal of Library Metadata*, 20(2-3), 127-154, DOI: 10.1080/19386389.2020.1821946

Quarati, A. (2023). Open Government Data: Usage trends and metadata quality. *Journal of Information Science*, 49(4), 887-910. https://doiorg.ezproxy.tcnj.edu/10.1177/01655515211027775

Zhu, J. (2023). Unlocking potential: Harnessing the power of metadata for discoverability and accessibility. *Information Services & Use*, (Preprint), 1-8.

Bascones, M., & Staniforth, A. (2018). What is all this fuss about? Is wrong metadata really bad for libraries and their end-users? *Insights: The UKSG Journal*, *31*(0), 41.DOI: https://doi.org/10.1629/uksg.441

Pennington, B. (2016). Where is that? The challenges of including hybrid journal articles in the library research process*, Serials Review*, 42(4), 306-310. doi: 10.1080/00987913.2016.1243035

Bulock, C. (2021). Finding open content in the library is surprisingly hard. *Serials Review*, 47(2), 68-70. doi: 10.1080/00987913.2021.1936416

Ex Libris Knowledge Center. (2023, November 8). CDI Collection Lists for Alma Customers. https://knowledge.exlibrisgroup.com/Alma/Product_Documentation/010Alma_Online_Help_(English)/Electronic_Resource_Management/060_Alma_Single_Activation_Source_for_CDI/050CDI_Collection_Lists_for_Alma_Customers#CDI_Collection_List

Open Access Indication in Primo VE (n.d.). Ex Libris Knowledge Center. Retrieved October 20, 2023, from https://knowledge.exlibrisgroup.com/Primo/Product_Documentation/020Primo_VE/Primo_VE_(English)/030Primo_VE_User_Interface/Open_Access_Indication_in_Primo_VE

Gordon, G. (2021, September). The rise of preprints. *Elsevier Connect*. https://www.elsevier.com/connect/the-rise-of-preprints

Clarivate (2023, February 9). Clarivate Adds Preprint Citation Index to the Web of Science https://clarivate.com/news/clarivate-adds-preprint-citation-index-to-the-web-of-science/

CDI Document Attributes (n.d.). Ex Libris Knowledge Center. Retrieved October 20, 2023, from https://knowledge.exlibrisgroup.com/Primo/Content_Corner/Central_Discovery_Index/Documentation_and_Training/Documentation_and_Training_(English)/CDI_-_The_Central_Discovery_Index/CDI_Document_Attributes

Configuring CDI Document Attributes in Primo VE (n.d.). Ex Libris Knowledge Center. Retrieved October 20, 2023, from https://knowledge.exlibrisgroup.com/Primo/Product_Documentation/020Primo_VE/Primo_VE_(English)/120Other_Configurations/Configuring_CDI_Document_Attributes_in_Primo_VE

About the author

Jia Mi is an Associate Professor and Electronic Resources/Serials Librarian at The College of New Jersey. Her primary research interests include electronic resource management, digital libraries, scholarly communication, and open access. Email: jmi@tcnj.edu