

METADATA SERVICES, DIGITAL COLLECTIONS, AND PRESERVATION

Keywords: metadata, digital collections, digital preservation, cultural heritage, linked data.

Every region, every country, every library has items and content that are important to their culture and the heritage that they pass on to future generations. But what is cultural heritage and what does it consist of? According to the UNESCO Institute for Statistics (2009), “Cultural heritage includes artefacts, monuments, a group of buildings and sites, museums that have a diversity of values including symbolic, historic, artistic, aesthetic, ethnological or anthropological, scientific and social significance” [UNESCO Institute for Statistics / Cultural Heritage, 2009]. And because of their importance, it is vital that we work to not only protect and preserve the content, but also make it available to the communities we serve and the wider world⁴. But how can we do this? In this article, we will consider how libraries can increase the visibility of their unique resources to share their cultural heritage with the world, the importance of collaboration in this task, and the impact that this can have.

Supercharge your collections with collaboration

Modern library users expect all types of resources to be available to them and libraries need to keep up with current demands. And so, it is vital that libraries have metadata that meets these expectations and supports the services that their library offers, such as discovery and interlibrary loan.

WorldCat[®], the world’s most comprehensive database of information about library collections, contains more than 3.4 billion holdings and over 559 million records (as of June 2024)⁵. The database provides access to a wide range of resources from the more traditional print books, to streaming videos, musical scores, images, sound records, and many more. Not only does it contain so many different formats, but there are also 486 languages and 48 non-Latin scripts too, with 61% of the database representing non-English items⁶. In fact, there are 131,000 records in Armenian alone, helping to share the Armenian cultural heritage with the world. With all these formats and languages available, it makes it even easier to catalog special and cultural heritage collections.

Over recent years, the number of catalogers in libraries has decreased and this has meant that there is less time for quality cataloging, which highlights the need for collaboration even more. With the help of WorldCat, libraries have access to a reliable source created by librarians around the world. WorldCat represents a long-lasting collaboration between OCLC, member libraries, and material providers to deliver quality bibliographic metadata⁷. The WorldCat database is on a large scale and provides cooperative expertise in which many people can participate, and in turn, it creates great quality.

⁴ Ziden, Ahmed Adel (2024) Digital Cultural Heritage: Theory and Practice. URL: <https://www.ifla.org/news/digital-cultural-heritage-theory-and-practice/> (Accessed 14 October 2024).

⁵ OCLC (2024) Inside WorldCat. URL: <https://www.oclc.org/en/worldcat/inside-worldcat.html> (Accessed 14 October 2024).

⁶ OCLC (2024) Inside WorldCat. URL: <https://www.oclc.org/en/worldcat/inside-worldcat.html> (Accessed 14 October 2024).

⁷ OCLC (2024) OCLC delivers quality. URL: <https://www.oclc.org/en/worldcat/cooperative-quality.html> (Accessed 14 October 2024).

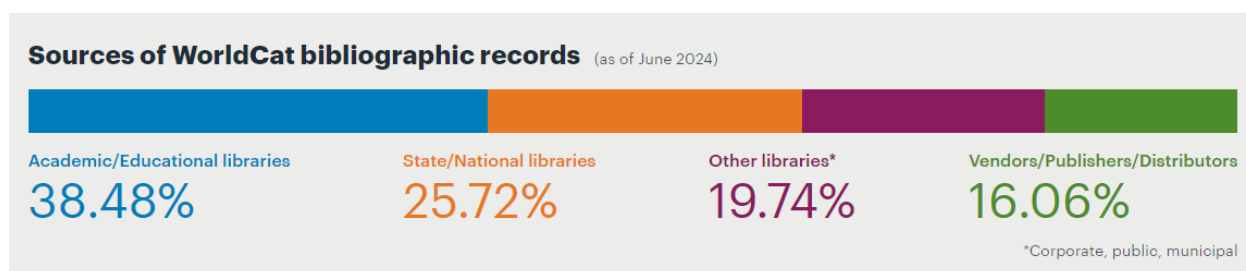


Image 1: Source of WorldCat bibliographic records⁸.

A significant number of bibliographic records come from vendors and publishers, which is a sign of quality and something that can be very helpful for libraries in their acquisitions and operations processes making them more efficient. Being vendor neutral means that OCLC can offer records from many different partners, which means libraries don't have to add records themselves, leading to considerable time savings for library staff.

National libraries make up a quarter of the content in WorldCat. This is because it is the ideal way for them to provide high quality records for those that want to use them, allowing for better visibility of their collections via the web.

And finally, other libraries, for example, academic and special libraries, are likely to have the time to focus on their special collections that are unavailable elsewhere, as they are looking to copy catalog their other items.

This only goes to highlight the importance of a source such as WorldCat. It gathers bibliographic information from so many sources, it means that libraries don't miss out on a wealth of records and collections that otherwise would not be visible.

Therefore, it is both important and interesting to collaborate and work together on such a database of information. WorldCat records are continuously enhanced by professional catalogers at OCLC and libraries worldwide, improving the records for everyone. Students and faculty are always searching for the best information they can find and with the high-quality metadata present in WorldCat, this becomes much easier.

Holdings registration expands impact

If people can't see a library's materials, how do they know they exist or that they can use them? Library users expect to be able to find the content they need using online search engines, while researchers want to increase the visibility of their research. But how can this be achieved? By signing up to the WorldCat registry, libraries can increase their impact and reach, on a global level.



Image 2: How holdings in WorldCat can increase library visibility

⁸ OCLC (2024) OCLC delivers quality. URL: <https://www.oclc.org/en/worldcat/cooperative-quality.html> (Accessed 14 October 2024).

If libraries register their holdings, this can have a big impact on their visibility. Once a library is in WorldCat, their holdings are then shared with partners such as Google Books, Goodreads, and Wikipedia. By working with these huge platforms, libraries are offered access to an audience of millions. This then means that when people search, they will find the records from the partners' databases, which then guides them back from the web to the library catalog via the 'find in a library' option. They can then immediately see which library has the item in their collection, even if it is a library they have never heard of before. As a result, over the last few years, there have been 70 million links back to WorldCat.org and over 10 million links back to libraries. All this helps to drive users back to library catalogs even if this is not where they have started their search.

Maximize the visibility of resources, especially special collections

Libraries around the world hold special and unique collections that unless a user visits the library, they just won't know are available. These collections are so rich in knowledge and diversity that it is important that they are made available to as many people as possible, both now and in the future. And the way to do this is to display and share them online in a format suitable for whichever device the user chooses.

CONTENTdm[®] is a digital repository service that allows library staff to build, preserve, and showcase their digital collections on a personalized website, making the items more discoverable for people globally. The platform allows for the handling of several item formats such as image, video, and audio⁹. CONTENTdm's functionality allows for more in-depth searching meaning that users can find even the more obscure item in a library collection.

With the integration of some of the IIIF (International Image Interoperability Framework) APIs, it means that the resources can be shown in different ways, allowing easier viewing and comparison over multiple repositories¹⁰, opening up a world of possibilities to users and researchers.

With CONTENTdm, libraries can highlight their collections and what makes them special, while also making it easier for researchers to use the resources without the need to travel long distances. The digital collections available in CONTENTdm will "float" to WorldCat via OAI-PMH harvesting hence pushing these resources to the forefront of the web. And in WorldCat, the bibliographic records from those collections will benefit from linked data that is added to the metadata.

Linked data: the next evolution of library metadata

As mentioned earlier, the metadata in WorldCat helps to make library collections much more visible and share what the library has to offer. But as libraries continue to evolve in line with their users' needs, this means that there is an even greater need to harness the metadata available. OCLC are doing this by using it to inform their linked data strategy providing a purposeful and inclusive approach built on decades of linked data research that provides useful and concrete next steps for the library at all stages of metadata transformation.

OCLC are working to build a comprehensive and sustainable linked data ecosystem in which the aim is to make library data more interconnected, accessible, and discoverable while providing new opportunities for both collaboration and sharing. This linked data ecosystem allows for the management and curation of linked data, and its integration across multiple workflows, systems, and communities. In addition, with this new innovative step, libraries' collections become even more discoverable and closer to researchers online.

Back in 2020, OCLC started migration to linked data by building the infrastructure to create entities. This was jointly funded by the Andrew W. Mellon Foundation and OCLC¹¹. In 2022, WorldCat Entities took the first step in delivering a large, centralized infrastructure, filled with the first set of 150 million entities of works and persons. These entities are persistent and provide the community with the building blocks needed

⁹ OCLC (2024) Build, showcase, and preserve your digital collections. URL: <https://www.oclc.org/en/contentdm.html> (Accessed 14 October 2024).

¹⁰ OCLC (2024) Features. URL: <https://www.oclc.org/en/contentdm/features.html> (Accessed 14 October 2024).

¹¹ OCLC (2020) OCLC awarded Mellon Foundation grant to develop infrastructure to support linked data management initiatives. URL: <https://library.oclc.org/digital/collection/p15003coll6/id/6168/rec/13> (Accessed 14 October 2024).

to migrate to linked data. These URIs can be read easily by computers and help connect things to other items on the web. Again, making resources that previously may have been invisible visible.

By starting with WorldCat works and persons entities, libraries can begin to populate their MARC records with these entities or use them in BIBFRAME records – connecting data across local systems and workflows. “Linked data breaks up the valuable, library-focused data locked in MARC records and publishes it using uniform resource identifiers (URIs) [OCLC / Linked data. The future of library cataloging, 2024]”. Over time, additional entities like concepts and places will be added to support library data needs. Beginning on October 10, 2024, OCLC continues to enrich WorldCat MARC records with WorldCat Entities linked data URIs.

These entities are freely accessible through a look-up website for anyone to explore. Library metadata specialists can begin to look up entity URIs and see how they can make new connections that empower discovery and research. By referring to these publicly available resources by their URIs, libraries will ease migration to linked data solutions and will also improve interoperability with other library metadata. With the current MARC environment, WorldCat Entities can be referred to using their URIs, from MARC bibliographic records.

In 2024, OCLC Meridian® was launched, indicating a significant step forward in the evolution of library metadata. Meridian is a web application and a set of APIs that libraries can use to create, curate, and connect linked data entities. Published in WorldCat Entities, this linked data is then available for use across a wide variety of services and systems so that library resources are integrated where users search for information.

Conclusion

Founded in 1967, OCLC has remained dedicated in its commitment to libraries, fostering collaboration that has transformed the way libraries manage and share knowledge. OCLC’s early efforts revolutionized the cataloging process, transitioning from traditional card catalogs to automated, computerized systems. This evolution resulted in the creation of WorldCat, the world’s most comprehensive database of information about library collections, marking a significant step forward in making collections discoverable on a global scale. OCLC's ongoing mission has been to enhance library visibility, support collaboration, and embrace emerging technologies, keeping libraries at the forefront of the digital age.

In recent years, technological advancements have significantly reshaped both personal and professional lives. The introduction of smartphones, tablets, and laptops has fundamentally changed how students, researchers, and the public access information. To remain relevant, libraries must meet their users where they are online, on mobile devices, and through digital platforms – delivering timely and pertinent resources to support academic and research pursuits.

As academic and national libraries increasingly invest in large-scale digitization projects, the challenge lies not only in preserving valuable historical collections but also in ensuring that these resources are discoverable and accessible in the digital world. OCLC plays a critical role in this endeavor by helping libraries extend their reach, ensuring their collections are visible and integrated into the broader online ecosystem. By doing so, OCLC sustains its mission of empowering libraries to remain central to research and knowledge dissemination, ensuring that their contributions to scholarship, preservation, and education are recognized and valued globally.

ԱՄՓՈՓՈՒՄ

OCLC-ի հիմնական առանձնահատկությունը WorldCat-ն է՝ տվյալների, քաղաքականության և ենթակառուցվածքների համագործակցային ցանց, որը մարդկանց կապում է գրադարաններին, իսկ գրադարանները՝ միմյանց: Հոդվածում ներկայացված են գրադարանների գրացուցակավորման տարբեր մոտեցումներ, որոնք օգտագործվել են աշխարհի ամենամեծ մատենագիտական տվյալների բազայի՝ WorldCat-ի հիման վրա: Ներկայացվում են WorldCat-ի միջոցով ստեղծված տարբեր գրադարանների գրացուցակների օրինակներ, ինչպես նաև անդրադարձ է կատարվում գրացուցակավորման զարգացման ուղիների հավանական ապագային:

REFERENCES

1. OCLC Build, showcase, and preserve your digital collections, 2024, URL: <https://www.oclc.org/en/contentdm.html> (Accessed 14 October 2024).

2. OCLC Features, 2024. URL: <https://www.oclc.org/en/contentdm/features.html> (Accessed 14 October 2024).
3. OCLC Inside WorldCat, 2024. URL: <https://www.oclc.org/en/worldcat/inside-worldcat.html> (Accessed 14 October 2024).
4. OCLC Linked data. The future of library cataloging, 2024. URL: <https://www.oclc.org/go/en/publications/linked-data-the-future-of-library-cataloging.html> (Accessed 14 October 2024).
5. OCLC OCLC delivers quality, 2024. URL: <https://www.oclc.org/en/worldcat/cooperative-quality.html> (Accessed 14 October 2024).
6. OCLC OCLC awarded Mellon Foundation grant to develop infrastructure to support linked data management initiatives, 2020. URL: <https://library.oclc.org/digital/collection/p15003coll6/id/6168/rec/13> (Accessed 14 October 2024).
7. UNESCO Institute for Statistics / Cultural Heritage, 2009. URL: <https://uis.unesco.org/en/glossary-term/cultural-heritage> (Accessed 14 October 2024).
8. Ziden, Ahmed Adel Digital Cultural Heritage: Theory and Practice, 2024. URL: <https://www.ifla.org/news/digital-cultural-heritage-theory-and-practice/> (Accessed 14 October 2024).

USEFUL RESOURCES

1. OCLC (2024) Linked data: The future of library cataloging. URL: <https://www.oclc.org/go/en/publications/linked-data-the-future-of-library-cataloging.html>.
2. OCLC (2021) The supercharged library collection. URL: <https://indd.adobe.com/view/ed64eb12-b44e-4127-aaa6-20ed39273192>.
3. Smith-Yoshimura, Karen (2020) Transitioning to the Next Generation of Metadata. URL: <https://oclc.org/nextgen-metadata-report> .