

## **Collaborating to improve cultural heritage collections as data: analyzing Europeana and Japan Search**

This paper reports on a Japanese and Danish collaborative project on digital cultural heritage infrastructures and data models (2024-2026). The aim of the projects is to compare how different approaches to providing access to digital cultural heritage (DCH) can learn from each other and improve their respective solutions. The project involves the following libraries and supportive institutions:

- *National Diet Library* in Japan wants to introduce links to DCH collections outside Japan into its Japan Search platform.
- *National Institutes for the Humanities* in Japan supports the development of inter-university research institutes that promote research in the humanities.
- *Royal Danish Library*, which serves as the national library, wants to improve access to its collections and provide better metadata and linked data. A significant goal is to publish links to its collections on the collaborative European initiative, the *Europeana* platform.
- *Europeana* empowers the cultural heritage sector in its digital transformation and advocates for better digital practices that support openness, transparency and reuse of digital cultural heritage.

The institutions support digital humanities education and to do so they have to work with their DCH collections as data (Candela & Gabriëls et al, 2023). Additionally, the institutions share a common goal to improve discoverability and connections with other related online collections across borders and alphabets. Thereby, the projects contributes to advance a development of linked data in DCH collections that has been under way in the last ten years (Lambert & Southwick, 2013).

RQ1 general: what activities should the libraries prioritize, preferably with low effort and high impact, which will improve access to their collections as data in Japan Search and Europeana?

RQ2 specific to data models: What are the most important fields in the data models and what requirements do they set for the improvement of metadata and the use of linked open data in an institutional setting?

### **Method**

The paper reports on a series of workshops that bring together data scientists, librarians and cultural heritage curators from national libraries and universities. In addition, the project participants manage and develop the workshops using collaborative literature reviews and desk research.

The workshops and the desk research employ a two-fold approach in a collaborative investigation of the Europeana and Japan Search portals:

1. from the outside-in we compare the collection metadata and linked data in the platforms user interfaces and how it is displayed (knowledge graphs).
2. from the inside-out we compare data models and publishing guides from Europeana (n.d.) and Japan Search (n.d.)

Alongside its mapping of the portals and their data models, the project draws on didactic considerations from existing research (e.g. Oi et al, 2022). Included in its focus on access, the project promotes the use of DCH in learning scenarios as alternatives to Google-based searches. Finding and using simple digital objects is fine, e.g. illustrations for a pupil's specific class presentation. However, in-depth exploration of historical source materials should not begin with Google Search and thereby risk enforcing the misconception that

'Google is the internet'. Japan Search has the advantage of being available in the pupils' native tongue and English. However, Oi et al. (2022) have shown that it is still labor-intensive to search for learning materials from a vast amount of information and consider how to utilize them in the classroom. Answering RQ1 and RQ2 provides a basis for recommended ways towards increased use of Europeana and Japan Search in learning scenarios.

## **Preliminary findings**

Our initial assumption was that the Royal Danish Library and Europeana have a lot to learn from Japan Search. One example of this is evident from the fact that only 4,6 percent of the Europeana database have the highest metadata tier while more than 50 percent have the lowest metadata tier (Metis, n.d.). The data models of Europeana and Japan Search support the Resource Description Format (RDF, 2014). However, it seems there are also comparable challenges shared by the parties involved, e.g. high barriers to entry when adopting the principles of Linked Open Data at GLAMs and international links between collection metadata. It seems the data models and the data mapping guidelines are still a well-meaning, yet tangled, network of documents that define, prime, guide, and provide case studies to a degree that will exhaust even the most hardened curators and developers. The institutions might succeed in publishing (links and descriptive metadata about) its collections. Still, we have found case where the follow up data management is lacking and users will find confusing metadata that suggest haphazard publishing activities.

Based on the comparative analysis and workshop outcomes, the research project will propose a set of best practices for cultural institutions seeking to implement or enhance their digital collections using the data models of Europeana and/or Japan Search. Our findings so far suggest the proposed best practices will emphasize the importance of user-centered design, metadata standardization, and the establishment of clear guidelines for linked data implementation. In conclusion, this paper will outline these best practices to be proposed and hope to discuss these with the digital humanities community.

## **References**

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