



Europeana Foundation Governing Board Meeting

27 September 2016
10h00 – 17h00 CEST
The Netherlands
Institute for Sound &
Vision, Theatre Two

Update on Progress of Operation Direct

Action proposed: For information and Q&A

1. Executive Summary *Operation Direct* was launched by Europeana in March 2016 to explore the idea of data owners publishing collections directly on Europeana, bypassing intermediaries (aggregators). During the five months we held a series of in-depth interviews and implemented a series of pilots for feedback. The results so far are encouraging: there is strong support for the new vision by practitioners in cultural institutions, colleagues from similar initiatives and the Europeana office itself. The first feedback on the pilots is also good, but there is more work to be done. By the end of the year we aim to wrap up the experiment and be able to decide how to shape our future technical and partner relationships with cultural heritage institutions.

2. Background and Rationale The idea of direct data submission was raised in response to the widely-recognised need to innovate Europeana's aggregation approach and accompanying technology. Today, that data is received via aggregators, data owners without either the means to control the publishing cycle or being able to preview how their collections would look on Europeana quickly lose interest. Some data owners are not even aware of their data being published on Europeana. That Europeana's own publishing mechanism is a black box (to aggregators as well) increases frustration. As a remedy, *Operation Direct* suggests to open up Europeana to data owners. The idea is to extend Europeana's contact with the cultural sector while at the same time improving the quality of published data: both, by radical simplification, transparency, and streamlining of the publishing process. Forging direct relationships between Europeana and institutions and making publishing a part of these relationships should make partners directly accountable for and interested in publishing high-quality data on the Europeana platform.

3. Interviews with Data Owners The starting point and first phase of *Operation Direct* was a series of (still ongoing) in-depth interviews with data owners from within and outside the Europeana network (including aggregators). The goal was to assess the desirability and feasibility of the proposed vision in the wide context of data owners' realities: their needs, resources, constraints, and ambitions. The interviews, transcribed and summarised for future reference, are a treasure trove for our aggregation efforts. The following insights derive from the interviews:

- **Heterogeneous Sector** The cultural sector is a mixed bag of institutions, differing along several dimensions. **Development:** some institutions employ in-





house developers, ready to build new solutions or customise existing ones. Others stick to ready-made solutions or subcontract development manpower. **Funding:** some enjoy a steady budget for infrastructure development, others need support from the authorities to mend the infrastructure. Funds often have to be spent within a timeframe, forcing institutions to hasten, sometimes at the expense of long-term planning. Additionally institutional attitudes towards online publishing differ widely. Some join the online publishing race from fear of being left behind. Bigger institutions with a coherent and well-funded digital agenda consider themselves trailblazers, promoting best practices and standards for online publishing as part of the public mission. **Technologies:** wide range of technologies, data formats and software are used. Publishing platforms, like Europeana, struggle to find a one-size-fits-all approach to serve the sector. More flexible and multi-layered approaches are needed.

- **Publishing Options** Institutions have a rich choice of publishing options: via their own Content Management Systems (CMS), developed by in-house or contracted developers, offered by the burgeoning space of cloud-based publishing services, and promoted by public and private platforms like Europeana. Decisions are often driven by convenience, technological feasibility, and funding availability; not by strategic planning and ideology. In the reality of an abundance of publishing choices, irregular funding schemes, and sporadic pressures, Europeana is only one choice among many, that will be judged on its merits: return on investment, ease of use, cost-efficiency, transparency, and quality of service.
- **Digital Transformation:** Institutions are revising their often over-bloated infrastructures, built on legacy software, project-funded products and services, under-the-radar in-house development and external solutions. They increasingly realise that to stay fit for purpose in the digital age a profound reorganisation is needed. The pressure is double: on the one hand, institutions are lured by trendy developments in the sector, such as mobile technologies, cloud services, content reuse, data analytics and more. On the other, they realise that without rebuilding their messy infrastructures into harmonious mash-ups of interconnected services, these innovations will remain a pipedream. For platforms like Europeana, this transition phase is an opportunity to get deeply engaged with the sector. To do so, its services must be offered as reusable pieces that can be easily fit into the evolving puzzle of institutional infrastructures.

4. Implementation The second phase of Operation Direct was to implement some of the needs voiced during the interviews in a series of quick pilots. We were consciously not aiming at full-blown products but rather, in line with the lean methodology, at a series of prototypes, sufficient to garner first feedback from the data owners.

4.1. API-First approach For any kind of software development in the project we adopted the 'API-First' approach, where internally- and externally-facing APIs are the first to be designed and implemented. The result was a new API, allowing publishing and reading back of cultural data (the read/write API). The new API goes a long way to simplifying the task of data publishing; it allows for full expressivity of EDM data, but takes the complexity away from the developer. This API seems to work well.



4.2 Content Management System Integration The new API was then used to integrate publishing to Europeana into a commercial CMS system, used by content providers. The goal was twofold: (1) validate the API in a realistic use case and get feedback from developers on the ease of implementation, and (2) get feedback from collection managers on the user-experience of direct publishing to Europeana. We implemented publishing flows into two commercial system: Galis ([Semantika](#)), and [Qulto](#). The feedback from developers who implemented the solutions and worked with the API was positive. The feedback from collection managers is still to come.

4.3 Self-service Publishing Large institutions with their own digital agendas (e.g. the British Museum) and large aggregators are building their own standard-based data distribution channels: often based on older protocols such as OAI-PMH, but occasionally forward-looking REST API-based (like [German Digital Library](#) or [Archives Portal Europe Foundation](#)) or sometimes on the increasingly popular IIIF protocol. They are reluctant to invest a publishing channel just for Europeana. For such cases, *Operation Direct* envisions a hybrid solution taking the best of the both worlds: a self-service harvesting console, operated by the institution or by Europeana, for scheduling publishing cycles, in which collections are drawn from institutions (using their preferred technology) directly into Europeana. We implemented the backbone of the system and piloted it with several OAI-PMH and REST API data sources, to good results.

4.4 Preview Environment for Testing Seeing is believing: Europeana data owners and aggregators have always stressed the importance of a preview environment (also known as content checker), where a data owner can see how their data looks prior to be published on the Europeana production environment. We implemented a new dedicated Europeana Collections website where data published using above channels (4.1-4.3) can be previewed.

5. Further Steps are full user feedback from the pilots and implementing suggested improvements, with both the group of institutions we interviewed and new partners. By the end of 2016 we will decide how the conclusions of the experiment impact Europeana's strategy and business goals and how its practical outcomes can be integrated into the Europeana platform.

6. Summary This paper reported on the 5-month progress of Europeana's *Operation Direct* experiment. While still too early for conclusions, a tangible support for the vision of *Operation Direct* can be reported. This support comes from a wide range of data owners. The message to Europeana and its peers from the field is clear: in the age of massive disruption, caused by digital transformation, abundance of alternative publishing solutions and scarcity of resources, platforms are a huge opportunity for the sector. To succeed, they need to be flexible and sensitive to its needs.

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