
The Polifonia portal: a confluence of user stories, research pilots, data management and knowledge graph technology

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Abstract of the answer to the call for proposals

This paper takes as an example the envisioned portal of the newly started Polifonia project that interlinks resources from very rich, old, established archives while making optimal use of the latest semantic web technologies. In the project, ten research pilots, spanning from historical bells and organ heritage, classification of polyphonic notated music, to the historical role of music in children's lives, form the driving force behind the development of the dedicated interface.

Based on a mixture of participation and participatory observation, we describe and reflect on the processes involved in making the portal. In other words - exemplified with the case of Polifonia - we reflect on the role of interfaces (of various types, shapes, manifestations and/or durations) to organise knowledge in an interdisciplinary project. In particular, we focus on the role of data management within the project as a key component of research methodology and cross-disciplinary collaboration, rather than an administrative exercise. The knowledge generated by this part of the project serves at least three different purposes: (1) to envision new research questions (competence questions) guiding the engineering backbone processes; (2) to define the future elements of the portal both for experts, other researchers, wider public and specific parts of the wider public; and last but not least, (3) the documentation task needed to support reproducibility and FAIRness of all data processes. Figure 1 below illustrates how the three components, namely the sociotechnical roadmap of the portal, the ontology-based knowledge graphs created in the research pilots, and the data management plan form three complementary components of the Polifonia project, that ultimately all feed into the web portal.

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Figure 1: Three components involved in the Polifonia portal design

In this paper, we claim that behind any interface there is the need for a layer of interfaces that form the basis of the final interface visible to the public. These procedural, intermediary, interfaces take the form of meetings, shared notes, github presence - and will result in products of their own (Data Management Plan, knowledge graphs), as well as inform the decisions during the process of designing the portal.

Keywords: Polifonia, data management, UX design, knowledge graphs