Towards Open Source Ecosystem for European Music Data

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The Open Music Europe project aims to reshape the European music data landscape by identifying data sources, developing data collection methods, and crafting policy-relevant indicators to underscore significance of data. The core scientific focus of the project is on enhancing data interoperability and accessibility through the integration of best practices in data science into an open source software ecosystem. The project pioneers best practices in data science and integrates them into an accessible open source software ecosystem that enables non-specialist stakeholders to gather and utilize data from multiple sources effectively. This software ecosystem, which includes a set of open source components and interactive cloud-based applications, has been implemented and is actively maintained. We demonstrate the use of these tools, and in particular the use of the eurostat R package in data retrieval and analysis. We show how users can add metadata by utilizing special data containers where additional metadata contents can be obtained from the Eurostat SDMX API. The framework supports conversions to various linked data standards and formats, greatly facilitating interoperability between data standards and openly available methodology and advancing data provenance, data citations, and reproducible research. Analysis of the European music industry complements the ongoing research efforts focusing of other forms of cultural production in the field of computational humanities. Our work demonstrates in particular how interoperability across data standards can significantly contribute to the advancement of FAIR and open data initiatives, helping to ensure more open sharing and utilization of music data in academic research as well as more broadly in society.