DARE25-003 - Executable Workflows for Digital Music Research

Abstract

Digital musicology has flourished over recent years, driven by endeavours such as the Music Encoding Initiative's MEI format – now a Library of Congress preservation standard – and the annual International Conference on Digital Libraries for Musicology. Prominent strands of research have prioritised FAIR data research management, open-source development, and equitable access; yet, significant barriers of technical expertise have delayed the adoption of digital approaches within the musicological mainstream. Minimal-computing approaches persued by researchers at the mdw – University of Music and Performing Arts Vienna's Department of Music Acoustics – Wiener Klangstil (IWK) and their international collaborators aim to lower these barriers, providing browser-based, user-friendly tools for music encoding, analysis, and dissemination.

The proposed project generalises workflows first constructed within existing tools developed at IWK. Planned outcomes combine and extend the results of prior projects at IWK, including TROMPA, Signature Sound Vienna, and E-LAUTE into executable applications, providing for external reusability and ensuring their sustainable impact. The project aims to create the following modular components: a JavaScript library for Linked Data annotation, a template for Web-API wrappers of command-line research tools, and GitHub Action workflows for collaborative music encoding. These aim to enable both technologists and humanist scholars to adapt and extend digital musicology tools, fostering broader participation and interoperability. By prioritising accessible, reusable, and comprehensively documented tooling, we hope to contribute further to the field's "digital turn", building on recent shifts in research practices accelerated by the Covid pandemic. The project aligns with the IWK's strategic focus on digital music research and sustainability, with a view toward long-term community engagement and impact.

Scientific disciplines:
Software development (50%) | Digital humanities (50%)

Keywords:
Music encodingDigital humanitiesLinked DataDigital musicologyWeb technologies

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Further links to the persons involved and to the project can be found under
https://www.gmbh.wwtf.at/funding/programmes/ei/DARE25-003/