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Bringing the concert hall into the living room: digital scholarship of small-scale arrangements of large-scale musical works

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Abstract— We present a study into nineteenth century arrangements of operatic and orchestral works for domestic use, supported by tools designed to support digital musicological research. These tools are built on web standards – Linked Data (particularly Web Annotations), IIIF and MEI – along with a new ontology designed to support the annotation of musical materials that appear in different forms across different resources.

Index Terms— Digital musicology, Linked Data, Ontologies, IIIF, Music Encoding

Before the twentieth century, and the rise of both affordable concert tickets and technological innovations in music recording and broadcast, people's access to performances of orchestral music and opera was limited by geographical and financial factors. Even for those who lived within reach of concert venues and for whom the cost of tickets was not a barrier, repeated, on-demand listening to any individual work was impossible.

These factors gave rise to a huge market in musical arrangements (or 'translations', as Beethoven called them), where orchestral works were reworked for fewer instruments. These reductions also allowed audience members to prepare for a concert more thoroughly, by playing through the music they would be hearing in advance. More dramatic changes to the source were also common in arrangements, however, including prècis, setting the melody to words, or freely composing a theme and variations or a fantasia around the source.

Despite their significance in how music was heard and understood – and financially in the music industry itself – arrangements are relatively little-studied. The lower status of arranged works has affected musicological discourse and, to some extent, library acquisitions, leaving suitable materials for study widely distributed and they have been seldom collected into scholarly editions.

With the rise of library digitisation and publication through IIIF, it has become practical to support the painstaking task of finding, comparing and analysing these arrangements, using decentralised tools, built on web standards such as Linked Data. Starting with a musicological investigation of musical arrangements in review and edition in *The Harmonicon*, a music periodical of the 1820s and 30s, we

illustrate how research of this kind has been supported using an application developed for the Beethoven in the House project. This application allows a scholar to record observations about the musical and practical decisions being made by editors whilst, in the process, creating a reusable Research Object[1] that can be published with any scholarly outcomes. Saving these annotations in Solid Pods[2] allows observations about public resources to be kept privately by a scholar, or published at a time and in a way that matches their needs.

To support musicological investigation of different versions of a piece of music, we have used the Music Annotation Ontology[3], which uses a FRBR-based model to allow comparable passages in different arrangements – evidenced by images, MEI editions or recordings – to be addressed as a single conceptual entity. These can be used simply to indicate where parallel passages occur, for example to support side-by-side browsing, but also to attach annotations at the appropriate level of abstraction to discuss shared musical concepts or instrumentation decisions.

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II. REFERENCES

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