

Digital Music Lab

An AHRC Digital Transformations Project

Analysing Big Music Data Conclusions

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Outline

- ▶ **Where we are**
 - ▶ Achievements
 - ▶ Challenges
- ▶ **What next**
 - ▶ Projects and collaborations
 - ▶ Distribution and application



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Where we are

- ▶ Digital musicology on large scale data is still in its beginnings
- ▶ Many components have been developed, some in this project, and we brought several together
 - ▶ Data
 - ▶ Methods
 - ▶ Tools



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Achievements

- ▶ Curated and derived data
- ▶ Infrastructure for Feature Extraction and Collection Level analysis
- ▶ Semantic Web integration
- ▶ Bringing computation to the data
- ▶ Interfaces for music analysis
- ▶ Methods of large scale music and audio analysis
- ▶ *Progress in closing the gap between MIR technology and musicology*



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Challenges

- ▶ **Legal framework**
 - ▶ Hargreaves report and copyright reform have helped, but still complicated and time consuming
- ▶ **Technology**
 - ▶ Complexity
 - ▶ Data size
 - ▶ Audio analysis and feature design
 - ▶ Symbolic analysis/integration
- ▶ **Research methods and tools**
 - ▶ User interfaces
 - ▶ Data driven methods and technology for musical (humanities) questions
- ▶ *Making sense of big music data*



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What next: projects and collaborations

▶ Related

- ▶ ASYMMUS (An integrated audio-symbolic model for music similarity)
- ▶ SLICKMEM/SLOBR with Goldsmiths/Oxford/BBC

▶ New

- ▶ Pattern detection (w/ Tom Collins)
- ▶ Music evolution (w/ Armand Leroi & Matthias Mauch)



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What next: Application and Distribution

- ▶ **Virtual Machine Images**
 - ▶ Being prepared
 - ▶ Can be used by data holders to support research
- ▶ **Web services**
 - ▶ Access to derived datasets
 - ▶ Potential long term service with the British Library



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What next: Future Work

- ▶ Network of music data resources in the Semantic Web for global research
- ▶ Advances in audio feature extraction
- ▶ Advances in integrated audio-symbolic analysis
- ▶ More visual interfaces for intuitive pattern and trend detection
- ▶ Methods that connect human understanding of music with technology



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Digital Music Lab – Analysing Big Music Data

**Thank you for coming,
listening and contributing!**

**Further informal discussions in
The Skinners Arms, 114 Judd Street**



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