Music Information Retrieval

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last·fm
the social music revolution

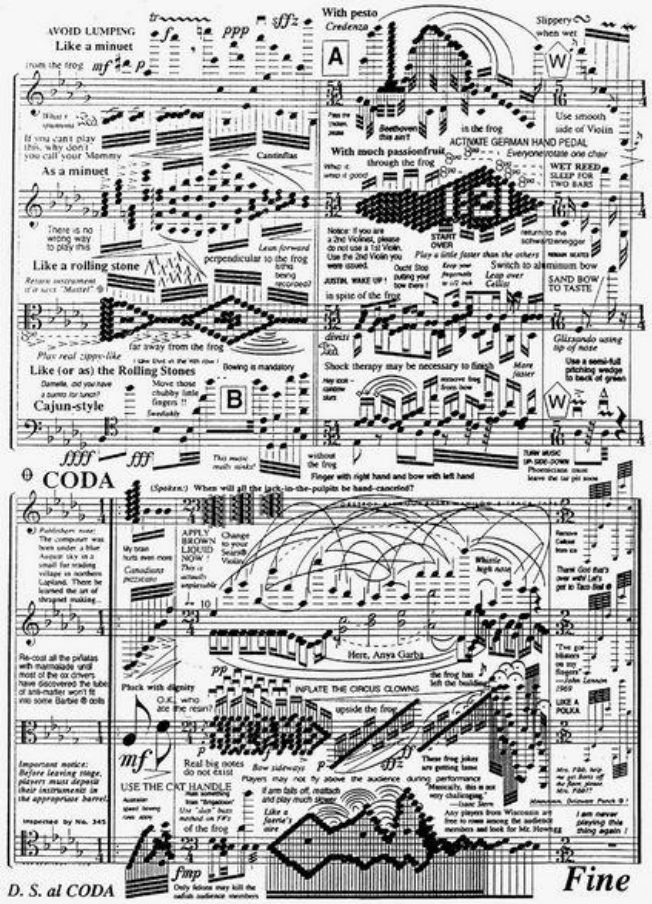
Grooveshark

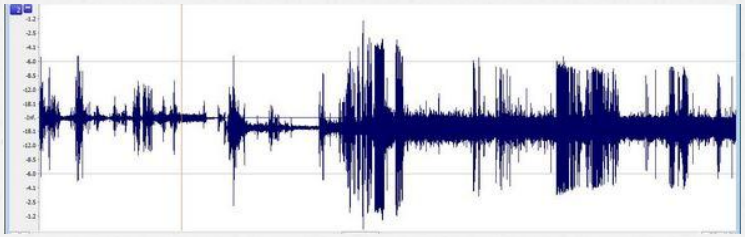
shazam

PANDORA
internet radio

Spotify

What makes MIR different?





Features of This Track

mellow rock instrumentation
folk influences
mild rhythmic syncopation
repetitive melodic phrasing
mixed acoustic and electric instrumentation
major key tonality
subtle use of the accordion
acoustic rhythm guitars
emphasis on instrumental arranging

Stephen Downie's MIR Challenges:

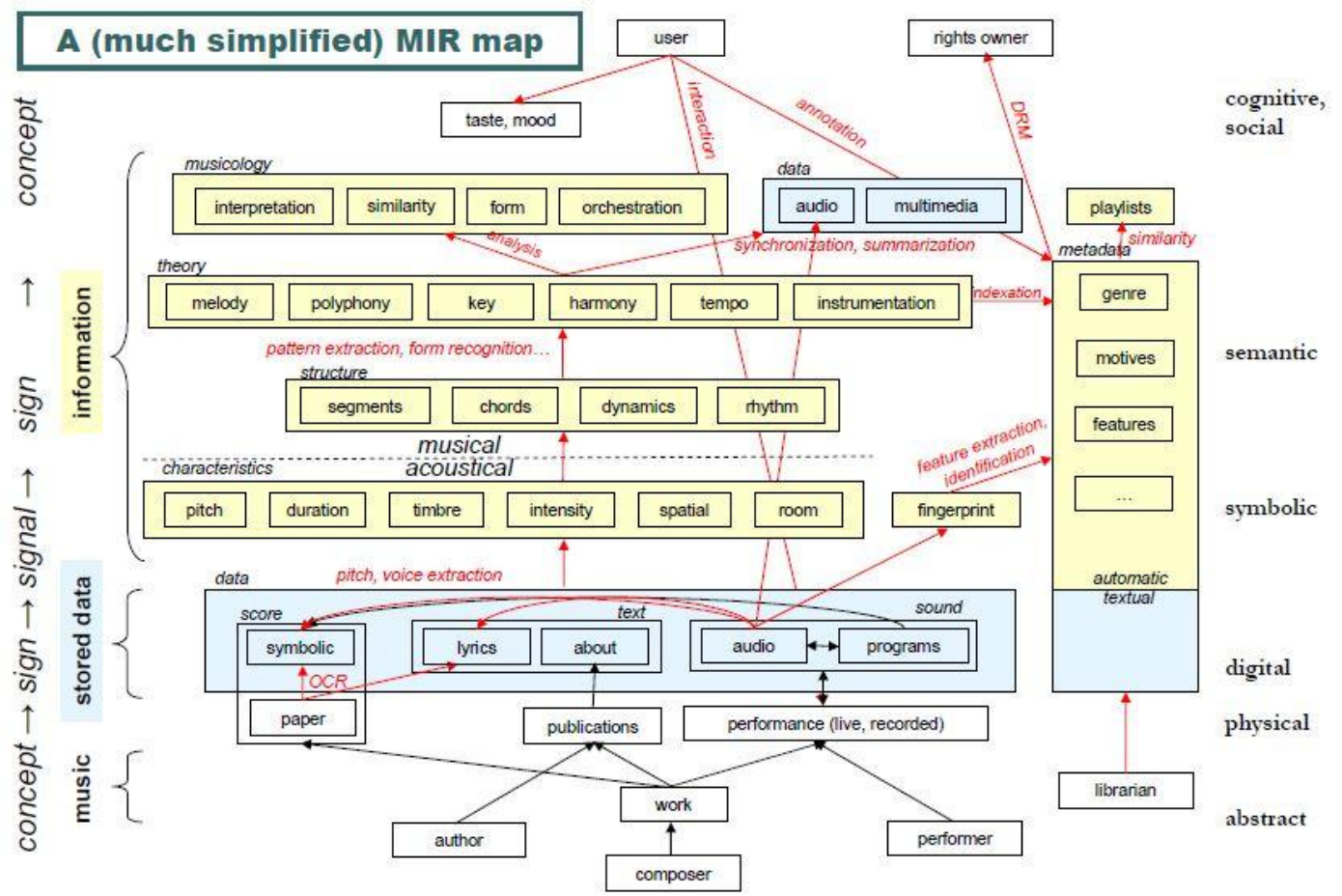
"Multifaceted challenge"

- Pitch
- Temporal
- Harmonic
- Timbral
- Editorial
- Textual
- Bibliographic

Stephen Downie's MIR Challenges:

- "Multicultural challenge"
- "Multi-experiential challenge"
- "Multi-disciplinary challenge"
- "Multi-representational challenge"

Why is MIR difficult?



MIR Applications

- Recommender systems
- Track separation/instrument recognition
- Automatic categorization
- Automatic score creation
- Music generation

- An international forum for research on the organization of music-related data
- Founded in 2000, meets annually

Music **I**nformation **R**etrieval
Evaluation e**X**change

- An annual evaluation campaign for Music Information Retrieval algorithms
- Founded in 2005

International **MIR Systems Evaluation Lab**

The MIR community version of TREC

Established to provide teams access to a unique collection of music materials in multiple formats

Housed at the Virtual Computing Lab @
The National Center for Supercomputing Applications

- 300,000 + digital audio recordings from www.naxosmusiclibrary.com

- metadata collection from www.allmusic.com