**WITCHCRAFT**

What Is Topical in Cultural Heritage: Content-based Retrieval Among Folksong Tunes

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**Aim:** to develop a fully-functional content-based retrieval system for large amounts of folksong melodies stored as audio and notation

**Participants:** Information and Computing Sciences, UU
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**Problem**

**Nederlandse Liederenbank**
- Database of Dutch Songs
- searchable metadata (author, title, first line etc.)
- missing: search functionality for melodies

**Sample musical queries**
- what is this melody I remember?
- which melodies are similar to this given melody?

**Queries may be**
- audio (sung, played)
- symbolic (notation, MIDI)

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**Music**

**Onder de Groene Linde**
- compiled 1957-94 by Ate Doornbosch
- c. 7000 recordings, transcriptions on paper

**Collection Harrie Franken**
- c. 1500 recordings

**Historical materials**
- broadside ballads, Geslagen van Nederland
- popular songs from the Nederlands Theater Instituut

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**Results**

**Output**
- ranked lists
- notation and audio
- navigate virtual space

**Generalisation**
- Stichting Erfgoed Nederlandse Lied
- folksong projects abroad, Flanders to Finland
- other repertoires; cataloguing (RISM)
- melody is probably the most important musical characteristic

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**Depends on music is memorized**
- perceptual and cognitive relevance

**Important high-level musical features**
- contour
- metre
- rest points

**Problems**
- extracting features from audio
- suitable similarity measures
- candidate: weight flow distance

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Versions of the beginning of the song
Toon ik of Nederlands honger stond

**Similarity**

Example weight flow between melodies

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Ate Doornbosch recording Tijs Pals
(Terschelling, c. 1966)

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Experimental search output
for Alfie is Kortfoeks ziek