

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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Theater Instituut Nederland

Problem

Nederlandse Liederbank

- 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)

Music

Onder de Groene Linde

- compiled 1957-94 by Ate Doornbosch
- c. 7000 recordings, transcriptions on paper

Collection Harrie Franken

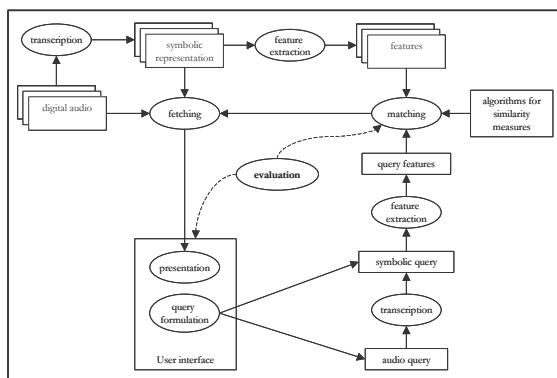
- c. 1500 recordings

Historical materials

- broadside ballads, *Gebeugen van Nederland*
- popular songs from the Nederlands Theater Instituut



Versions of the beginning of the song
Toen ik op Neerlands bergjes stond



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

Similarity

Depends on how 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



Example weight flow between melodies



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

Experimental search output
for *Altijd is Kortjakje ziek*