Towards the Representation of Chinese Traditional Music: A State of the Art Review of Music Metadata Standards

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- Ethnomusicology — The Discovery of the World’s Music
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1. Introduction

- A survey of musicological literature to identify prominent concepts both in the literature and in the Chinese musical culture
- A comparison of some important concepts in Chinese music with Western counterparts
- A survey of existing metadata standards examining how well they can be used to represent prominent concepts from Chinese Music
1. Introduction

Backgrounds

• The Semantic Web
1. Introduction

Backgrounds

- The Semantic Web
- Metadata models and standards for representing music and audio data
1. Introduction

Backgrounds

- The Semantic Web
- Metadata models and standards for representing music and audio data

---- The Music Ontology [1]

1. Introduction

Fig. 1 The Music Ontology
1. Introduction

Fig. 2 The Music and Studio Ontology Frameworks
1. Introduction

Motivation of this work

- To review music elements of a non-Western tradition
Motivation of this work

- To review music elements of a non-Western tradition
- To support our long-term research goals aiming to modify or extend the Music Ontology
2. Ethnomusicology — The Discovery of the World’s Music

TABLE 1: Comparison of countries and culture areas covered in worlds of music (Titon 2009), excursions (Nettl, Capwell, et al. 1992) and musics of many cultures (May 1980).

<table>
<thead>
<tr>
<th></th>
<th>Titon</th>
<th>Nettl et al.</th>
<th>May</th>
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<tr>
<td>Africa</td>
<td>Sub-Sahara</td>
<td>South of Sahara, Ethiopia, Ghana</td>
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<td>Asia</td>
<td>South India, Indonesia, Japan</td>
<td>China, India, Indonesia, Japan</td>
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<td>Sub-Sahara</td>
<td>South of Sahara, Ethiopia, Ghana</td>
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<td>Europe</td>
<td>Europe</td>
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<td>Latin America</td>
<td>Latin America</td>
<td>South American Folk, South American Indian</td>
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<tr>
<td>Middle East</td>
<td>Middle East</td>
<td>Arabic (secure classical), Iran (classical), Jewish music</td>
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</tr>
<tr>
<td>North America</td>
<td>Black America, Native America</td>
<td>North American Indian</td>
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</tr>
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<td>Oceania</td>
<td>Australian Aborigine, Polynesia</td>
<td>Native America, Alaskan Eskimos</td>
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</table>
3. Content Aspects of Chinese Music Tradition

Composition of Chinese Traditional Music

- folk music, literati music, religious music and royal court music
3. Content Aspects of Chinese Music Tradition

Composition of Chinese Traditional Music

- folk music, literati music, religious music and royal court music
- Different musical instruments
3. Content Aspects of Chinese Music Tradition

Composition of Chinese Traditional Music

- folk music, literati music, religious music and royal court music
- Different musical instruments
- performing characteristics
3. Content Aspects of Chinese Music Tradition

Chinese Music Systems of Symbolic Representations

Table 2: Chinese system of notation and its Western equivalent

<table>
<thead>
<tr>
<th>Actual Names of Notes</th>
<th>Ancient Names of Notes</th>
<th>Names of Lvs</th>
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<td>Bian Chi</td>
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<tr>
<td>Wu</td>
<td>Shang Shao</td>
<td>Tai Qing</td>
<td>D</td>
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</table>
4. Towards a Culture-Specific Ontology

Prominent schemata for managing music related information

MPEG-7, DCMI, AES-57/60, the Music Ontology...
4. Towards a Culture-Specific Ontology

**Expressiveness of Existing Metadata Schema Systems**

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<tr>
<th></th>
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<th>Music XML</th>
<th>MEI</th>
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</table>
4. Towards a Culture-Specific Ontology

When a term is not specified in existing metadata standard:

- Musical elements with strong cultural characteristics
4. Towards a Culture-Specific Ontology

When a term is not specified in existing metadata standard:

- Musical elements with strong cultural characteristics
- Terms do not cover the full meaning of particular items in another music system
4. Towards a Culture-Specific Ontology

When a term is not specified in existing metadata standard:

- Musical elements with strong cultural characteristics
- Terms do not cover the full meaning of particular items in another music system
- Characteristic components of Chinese music
5. Conclusions

- Some important missing concepts in the state-of-the-art.
5. Conclusions

- Some important missing concepts in the state-of-the-art.

- Elements proposed to be complemented and perfected:
  - Terminologies of the musicological system
  - Characteristic components of the music system
  - Featured performing skills and artistic forms
5. Conclusions

- Some important missing concepts in the state-of-the-art.
- Elements proposed to be complemented and perfected:
- The creation of task or domain specific ontologies
5. Conclusions

- Some important missing concepts in the state-of-the-art.
- Elements proposed to be complemented and perfected:
  - The creation of task or domain specific descriptive ontologies
- Providing the necessary amendments and extensions to the Music Ontology constitutes our future work
Thanks for your patience!

Any questions?