

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

**Mi Tian, György Fazekas, Dawn A. A. Black,
Mark B. Sandler**

**Centre for Digital Music,
Queen Mary University of London**

Table of Contents

- Introduction
- Ethnomusicology — The Discovery of the World's Music
- Content Analysis of Chinese Traditional Music
- Towards a Culture-Specific Ontology
- Conclusions

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] <http://musicontology.com>

1. Introduction

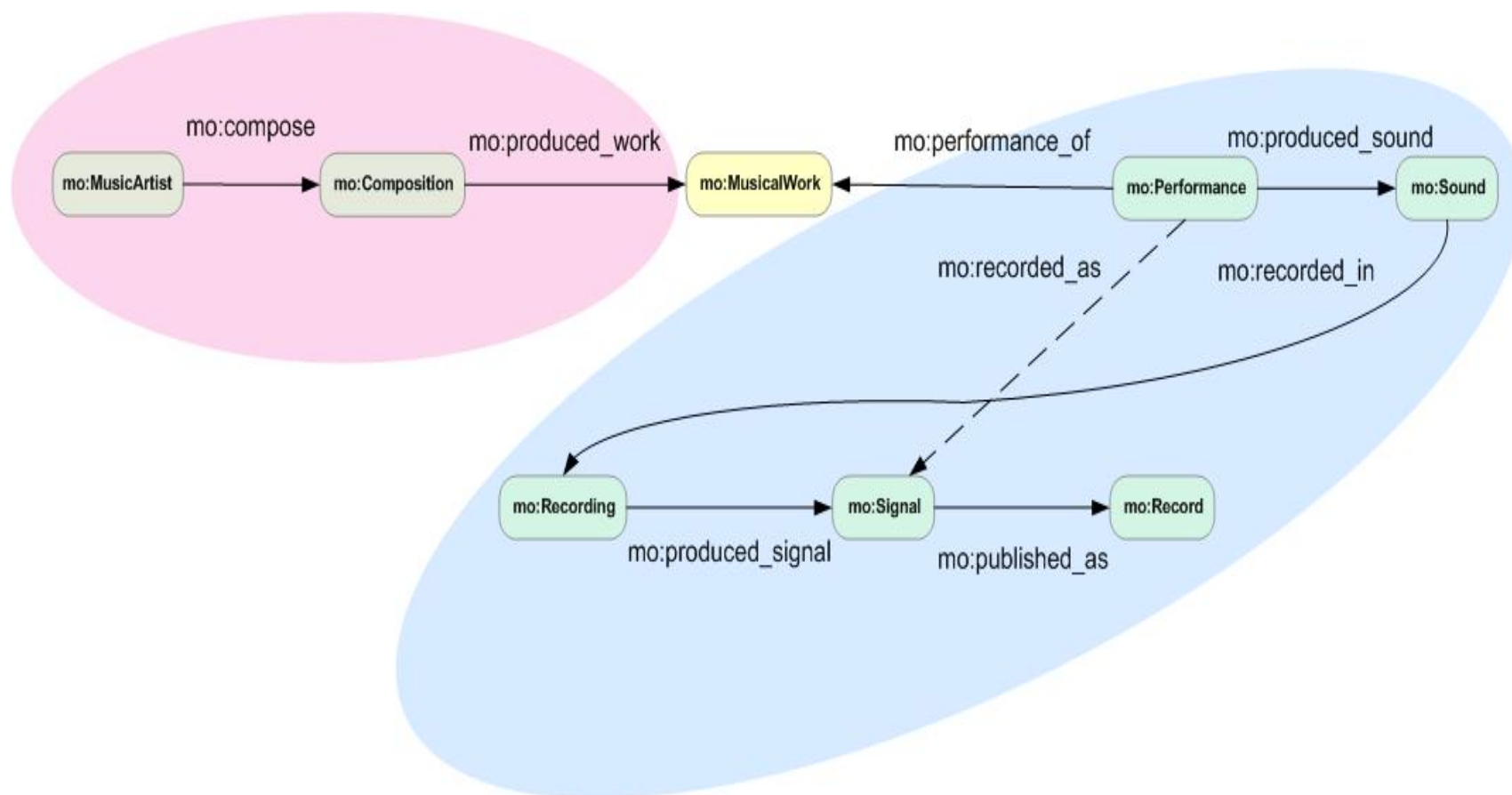


Fig.1 The Music Ontology

1. Introduction

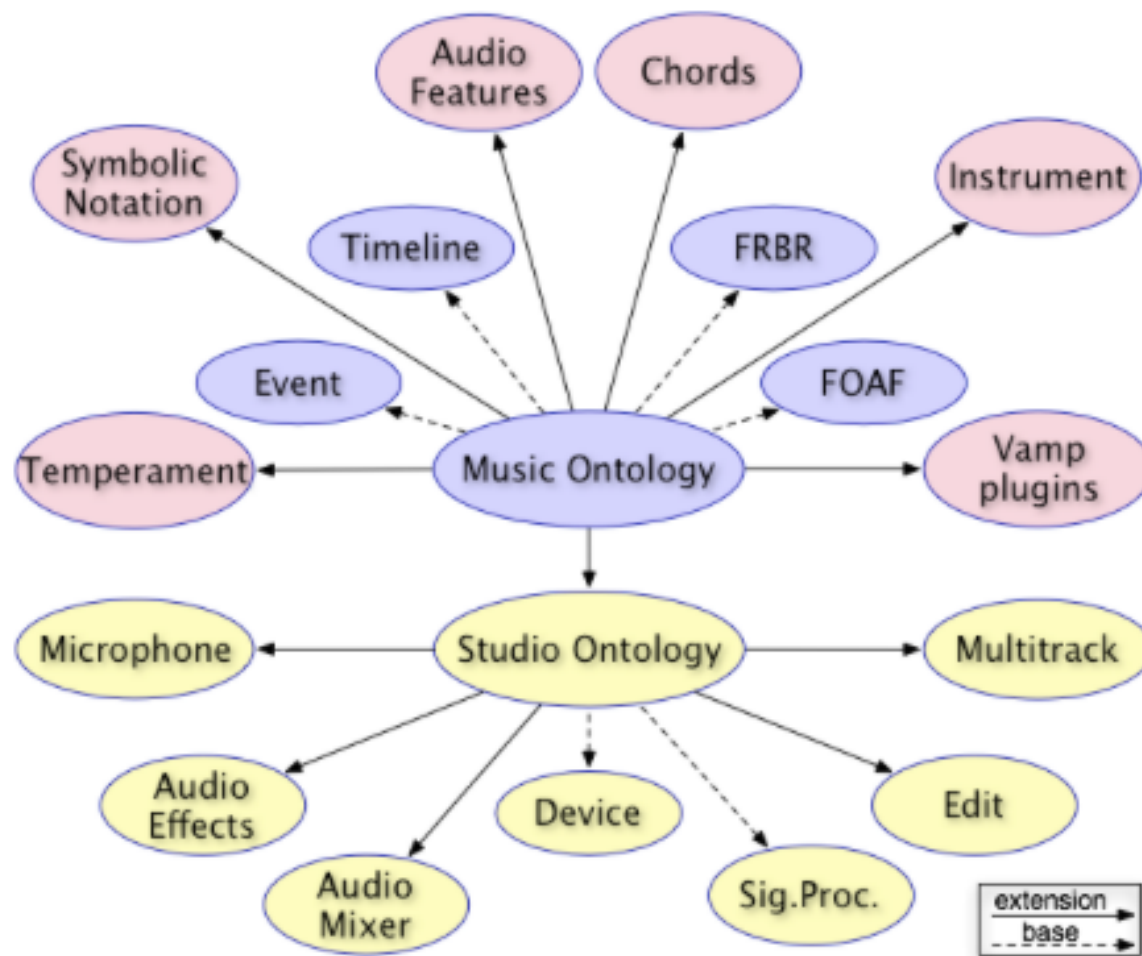


Fig.2 The Music and Studio Ontology Frameworks

1. Introduction

Motivation of this work

- To review music elements of a non-Western tradition

1. Introduction

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).

	Titon	Nettl et al.	May
Africa		Sub-Sahara	South of Sahara, Ethiopia, Ghana
Asia	South India, Indonesia, Japan	China, India, Indonesia, Japan	China, India (classical), Indonesia (3 islands), Japan, Korea, Thailand
Europe		Europe	
Latin America		Latin America	South American Folk, South American Indian
Middle East		Middle East	Arabic (secure classical), Iran (classical), Jewish music
North America	Black America, Native America	North American Indian	Native America, Alaskan Eskimos
Oceania			Australian Aborigine, Polynesia

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

Actual Names of Notes	Ancient Names of Notes	Names of Lvs	Western Equivalents
He	Gong	Huang	C
Si	Shang	Tai	D
Yi	Jiao	Gu	E
Shang	Chi	zhong	F
Chi	Bian Chi	Lin	G
Gong	Yu	Nan	A
Fan	Gong Yu	Ying	B
Liu	Gong Shao	Huang Qing	C
Wu	Shang Shao	Tai Qing	D

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

	DC	MODS	EAD	MPEG-7	Music XML	MEI	ID3	AES 57&60	EBU	MO
Title	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Subject	✓	✓	✓	✓	✓		✓	✓		✓
⋮				⋮					⋮	
Performing Skills					✓					
Vocal Style										
Place of Prosper										
Western Parallel										
Cosmetics and Prop										
Stage Performance										
Notation					✓	✓				✓

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?