Computation and Visualization of Subjective Artist Similarity for Music Libraries on Android Devices

Manuel Maly

Institute of Software Technology and Interactive Systems Vienna University of Technology

 ${\bf Abstract.}$ Abstract goes here.

 ${\bf Keywords:}\ \ {\bf subjective}\ \ {\bf artist}\ \ {\bf similarity},\ \ {\bf multi-dimensional}\ \ {\bf scaling},\ \ {\bf audio}\ \ {\bf analysis}$

Table of Contents

1 Introduction

4 Manuel Maly

2 Related Work

2.1 Features of Digitally Stored Music

The analysis of digitally stored music has long been the subject of research, as will be shown by

Audio Features (http://bit.ly/bY30GO) Lyrics (http://bit.ly/bY30GO)

2.2 Artist Similarity

Subjective Artist Similarity Computed Artist Similarity Feature Extraction Psycho-acoustic models Comparison to Subjective AS

2.3 Visualization

3D 2-Dimensional Visualization Multidimensional Scaling Self-Organizing Maps Spring Graph [e.g. http://www.liveplasma.com/, http://radioclouds.com, http://audiomap.tuneglue.net/]

2.4 Summary of this Section

- 3 Scenario and Scope of this Thesis
- 3.1 Scope Definition
- 3.2 Selected Artist Similarity Computation

Rationale...

3.3 Selected Visualization Computation

 ${\bf Rationale...}$

3.4 Summary of this Section

- 6 Manuel Maly
- 4 Computation of Artist Similarity based on Webservices
- 4.1 Matching of Data-items from Different Sources
- 4.2 Basic Artist Similarity
- 4.3 Optimizations for Better Subjective Similarity
- 4.4 Summary of this Section

- 5 Visualization of Artist Similarity
- 5.1 Summary of this Section

- 8 Manuel Maly
- 6 Implementation of Artist Similarity Visualization on Android
- 6.1 Structure of the Application
- 6.2 Web-Service Workflow
- 6.3 Android Environment
- 6.4 Artist Similarity Visualization Variants
- 6.5 Summary of this Section

- 7 User Study
- 7.1 Hypotheses
- 7.2 Experiment Setup

Population

Tasks

Metrics

- 7.3 Evaluation and Analysis of Study Results
- 7.4 Summary of this Section

8 Conclusion

9 Appendix A