Music Classification Study

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***Abstract*—Musical genre classification by ensembles of audio and lyrics features**

I. Introduction

This document provides a paper-style view of the Research Object (RO) "*Music Classification Study*"[1] generated . The RO has been created, managed and preserved via ROHub platform [1]. Please refer to [2] for a general introduction to the RO concept, to [3] for a detailed description of the RO model, and to [4] for more information about ROHub platform.

The RO is of type *"Basic", which represents a general aggregation of related resources.* [2].

An overview of this RO is depicted in Figure 1. Additionally, this RO has been enriched automatically with the following annotations:

- concepts (most frequently mentioned in the RO): *Systems, lyrics, words, Ensemble, results, song, rhyme, SSD, features, classification, sets*
- domains (fields of knowledge in which the main concepts are commonly used): *memory, mathematics, ethics*
- frequent expressions (most frequently mentioned noun phrases): *ensemble system, use the feature, musical genre, feature extraction service, MARSYAS feature, SVM classifier, research hypothesis*
- named entities (most frequently mentioned):
  - Places: *Austria*

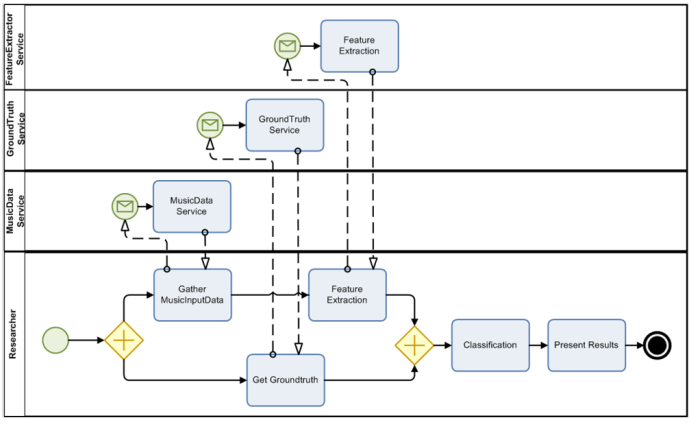


Fig. 1. Research Object Sketch

II. Resources

The resources encapsulated by the RO are summarized in table I

[1] *http://sandbox.rohub.org/rodl/ROs/musicStudy-4/*

[2] See RO types definitions at http://w3id.org/ro/earth-science#

TABLE I
Research Object Resources

name	size	type
MusicClassification_WSDL-final.t2flow	156.3 KB	Workflow
weka-3.6.6.jar	5.0 MB	
HowTo.txt	609.0 B	
MusicProcess-Hypothesis.txt	232.0 B	ResearchQuestion
musicProcess-BPMN2.png	86.8 KB	Sketch
MusicProcess-Conclusions.txt	238.0 B	Conclusions
MusicClassificationExperiment.wfbundle	27.2 KB	
musicStudy-4-musicWorkflowRun4.robundle	4.0 KB	LiveRO, Bundle, ExampleRu
may_ismir11-lyrics-ensemble.pdf	423.2 KB	Paper

A. Key Resource details

- Name: *musicStudy-4-musicWorkflowRun4.robundle*
  Description: *This is a nested Research Object*

Acknowledgment

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References

[1] The Research Object Management Platform - ROHub http://www.rohub.org/.

[2] K. Belhajjame, O. Corcho, D. Garijo, J. Zhao, P. Missier, D. Newman, R. Palma, S. Bechhofer, E. García Cuesta, J. M. Gómez-Pérez, S. Soiland-Reyes, L. Verdes-Montenegro, D. De Roure, and C. Goble "Workflow-Centric Research Objects: First Class Citizens in Scholarly Discourse", Proceedings of Workshop on the Semantic Publishing, SePublica Crete, Greece 28 May 2012.

[3] Belhajjame K., Zhao J., Garijo D., Gamble M., Hettne K., Palma R., Mina E., Corcho O., Gómez-Pérez J. M., Bechhofer S., Klyne G., Goble C. "Using a suite of ontologies for preserving workflow-centric research objects", Journal of Web Semantics: Science, Services and Agents on the World Wide Web Available online 11 February 2015 ISSN 1570-8268.

[4] Palma R., Corcho O., Gómez-Pérez J. M., Mazurek, C. "ROHub - A Digital Library of Research Objects Supporting Scientists Towards Reproducible Science". In Semantic Publishing Challenge of Proc. Extended Semantic Web Conference (ESWC) Crete, Greece 25-29 May 2014