

TOWARDS ENRICHED CLASSICAL CONCERT EXPERIENCES: FIRST INTEGRATED PROTOTYPES OF THE PHENICX PROJECT

PHENICX consortium

phenicx@upf.edu

ABSTRACT

The FP7 PHENICX project focuses on creating novel digital concert experiences, improving the accessibility of classical music concert performances by enhancing and enriching them in novel ways. This requires a user-centered approach throughout the project. We present ongoing work on integrated prototypes, which combine several technological advances in the project into coherent user-ready interfaces. First prototypes are presented, offering novel ways to experience the time line of a concert, and rediscover and re-experience it afterwards. We also discuss the role of the envisioned user with regard to the prototypes.

1. INTRODUCTION

The PHENICX project¹ investigates how technology can be used to create novel digital classical concert experiences, capable of engaging broader audiences for the genre. A broad research spectrum is addressed, investigating varying data sources and modalities (i.e. audio, video, gesture and social data) and ranging from signal-based lower- and higher-level descriptors of musical pieces and their performances to user-oriented topics (a.o. recommendation and visualization techniques) [2]. The academic topics are connected to several use cases [1], targeting the experience of a concert before, during and after its performance.

To assess and verify the effectiveness and realism of proposed technological advances, active feedback of their envisioned audiences is essential. Therefore, from the start of the project, focus groups with several user groups (a.o. experts, casual listeners and outsiders) were held to learn the initial perception of the different plans for use cases and corresponding technologies. Based on this, an agile approach is taken, working towards several iterations of integrated prototype systems, which present technologies relating to several use cases in a consistent and coherent use context. As a first step, prototypes are presented of a tablet/desktop application for re-experiencing a concert after it took place, and a mobile interface for giving and displaying feedback over the time line of a performance.

¹ <http://phenicx.upf.edu>



© PHENICX consortium.

Licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0). **Attribution:** PHENICX consortium. "Towards Enriched Classical Concert Experiences: First Integrated Prototypes of the PHENICX Project", 15th International Society for Music Information Retrieval Conference, 2014.

2. FUNCTIONALITY

The current prototypes consider a 2013 recording of Beethoven's Eroica symphony by the Royal Concertgebouw Orchestra, conducted by Iván Fischer, and offer the following functionality:

Personalized information according to musical knowledge. Digital program notes and timed comments at three levels of expertise.

Timeline marking of interesting moments. The possibility to mark personal highlights during the concert and revisit these later.

Visualisation and score-following. An orchestra activity map showing the intensity level of individual orchestral sections, as well as a digital score synchronized to this performance of the symphony.

Audio/video source separation and tracking. The possibility to focus on individual instruments and follow them aurally or visually.

Performance comparison. Relating the current performance of the symphony to alternative performances.

3. THE DEMO AT ISMIR

We present the prototype interfaces and let our audience interact with these. Further insight is given into the technologies behind the different functionalities, and related advances which have not been integrated yet, but can already be demonstrated individually, will be shown as well. Next to this, we discuss the user-facing experiments surrounding the prototype and design choices made as a consequence. In general, we aim for a broader exchange with the community on ways in which novel user-facing music experiences can be established.

Acknowledgements The research leading to these results has received funding from the European Union Seventh Framework Programme FP7 / 20072013 through the PHENICX project under Grant Agreement no. 601166.

4. REFERENCES

- [1] C.C.S. Liem et al. Innovating the Classical Music Experience in the PHENICX Project: Use Cases and Initial User Feedback. In *Proceedings of WSICC*, Como, Italy, June 2013.
- [2] E. Gómez et al. PHENICX: Performances as Highly Enriched and Interactive Concert Experiences. In *Proceedings of SMAC/SMC*, Stockholm, Sweden, August 2013.