

The PHENICX project: Innovating the classical music experience

PHENICX is an FP7-supported project which started in February 2013. The project focuses on using novel multimedia, music and Internet technologies to enrich the analysis and experience of classical music concert performances, making them accessible and engaging for broad audiences.

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▶ A live concert performance becomes a digital artefact

The goal of the PHENICX project is to create new digital experiences for (live) performances of classical music. In doing this, digital artefacts will be developed with three main characteristics:

Multimodal

The concert experience is not purely auditory. Information in other modalities (e.g. video, text, sensor data...) also should be considered.

Multi-perspective

We study the concert from different viewpoints, both physical (different camera and microphone positions) and personal (different user types).

Multilayer

At each point in time, multiple parallel layers of information are important to the musical experience. These layers may be very diverse, ranging from musical information to musician commentary and supporting resources.

Characteristics of both a musical **piece** as well as its **performance** will be explicitly considered. In order to deal with a user audience which is as diverse as possible, **profiling** and **personalization** techniques will receive major attention. As a result, novel **engaging** and **interactive** ways to explore live classical concerts are foreseen which can **enrich** the concert experience **before**, **during** and **after** the concert.



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▶ Pushing academic frontiers

The context of the PHENICX project calls for a broad spectrum of advancements. Academic topics of interest range a.o. from audio signal analysis and source separation techniques to gestural information analysis and multimodal information processing techniques, from performance modeling to score synchronization, and from social network analysis and recommendation to visualization techniques and interactive performance systems. The academic partners within the project have strong track records in these diverse areas, and thus are excellent candidates for tackling the corresponding scientific challenges.

▶ Sustainable user feedback

The non-academic project partners are renowned leaders in the industrial and musical world, and as such have unique access to a considerable population of potential PHENICX technology users. This will actively be exploited throughout the project. At the start of the project, use cases were established which were immediately validated in focus groups and discussion groups. In subsequent project iterations, potential user groups will once again be involved in refining requirements and success criteria, and testing both academic demonstrators and the first market-ready proof-of-concept releases.

▶ Shaping the future of music

PHENICX has the ambition to achieve a paradigm shift in the audience experience of classical concert performances, moving away from concert performances as isolated, exclusive and constrained events. Digital technology can help breaking perceived physical and social barriers, and bring audience members closer to the performers on stage. This enables deepened understanding and appreciation of an important Western cultural heritage asset, ensuring its preservation, and improving its accessibility for new audiences. It also opens perspectives for new business models for music concerts.

An example of a novel technology-supported approach to classical concerts is **RCO Editions**, initiated by two of the PHENICX partners. During the project, academic advances will gradually be integrated. For more information on RCO Editions, see <http://www.concertgebouworkest.nl/en/rco-editions>



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How do movements and gestures of conductors and musicians affect a performance?



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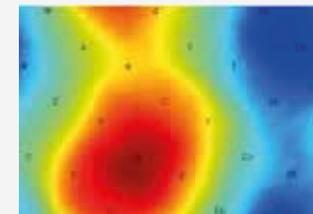
What can we learn from different performances of the same piece and rehearsal information?



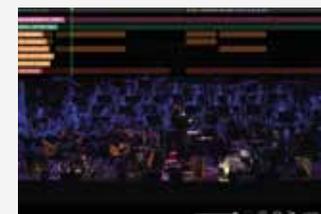
What is happening in specific sections of the orchestra?



How to use material which does not contain music, but offers interesting supporting information on it?



How can we visualize properties of pieces and their performance characteristics?



What are appropriate presentation forms, considering varying user experiences and backgrounds?

The PHENICX Consortium

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PHENICX

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