

# Preface

Education and research in music and audio production are increasingly scattered across different institutions and, within the last few years, several new programs have emerged in Scandinavia that deal with the subject. This growth is at least a result of changing market conditions, new technologies, and demands for specialized skills in the music and audio industries. This special issue on music and audio production focuses on the diversity in the field. The issue seeks to uncover some of the different forms of theoretical thinking, aesthetic visions, and approaches to the practice that exist in different research domains in audio and music production and how they interact with the other. The special issue derives from the 2<sup>nd</sup> Nordic Conference on Music and Audio Production held at the Music Section at Aalborg University, 12-13 May 2015.

The special issue's seven articles in different ways deal with the development of analytical and practical tools for music and audio production and they have relevance to both research and teaching in the field. Within this context are presented specific proposals for concept development – as well as “concept dissolution” – that are driven by new digital audio technologies and new approaches to music production. Also provided are new research paradigms and concrete applications in education contexts, including collective music productions.

The first article, from Toivo Burlin, delineates the contours of what is music and audio production's object of study. Burlin argue how musicology, in the broadest sense, can benefit from a media- and production-centred research paradigm that is based on research developed in the music production domain.

Mads Walther-Hansen's article analyses and argues, among other things, for how specific artifice, approaches, and techniques in music production help to create and support the experience of a certain virtual action space that is saturated with signs, locations, and information that are each attuned to the aesthetic's potential diegetic implications.

Basing itself on today's widespread use of live loop techniques, Totte Mattson's article describes some of the discoveries and advances that were developed in an artistic research project regarding the use of so-called audiovisual loops involving several performers collectively. The project's specifically contextualised approaches to loop technique is presented within a historical perspective and the article illustrates how this technique is as relevant to performance as it is to composition and rehearsal.

Jan-Oluf Gullo outlines, in collaboration with Ivan Höglund, Julia Jonas, Hans Lindtorp, Anton Näslund, and Joakim Persson, the artistic and technological challenges and achievements of a collective, synchronized music installation that was developed for the Nobel Museum in Stockholm in 2014. The article bases its argument on crea-

tivity theory and contemporary notions of process and flow and argues for how a heuristic approach to the collective, creative music work may lead to new expressions and as well as to new forms of understanding.

Mark Grimshaw's article argues for a new definition of sound that enables novel ways to understand, shape, and interact with sound in, for example, sound design and computer games. By regarding the sound as an "emergent perception" that develops in the brain over time, the article proposes a theoretical framework for understanding how these perceptions can be "extracted" from the brain with the aim of designing audio.

Based on research in animal ethology and neuroscience, Justin Christensen proposes the hypothesis that the emotional impact of music (both positive and negative) is stronger when the sound is heard close to the listener. This hypothesis is supported in a study using EEG and tactile transducers and identifies future research to investigate the effect of various acoustic artefacts on the listener.

The lack of texture in digital audio is the focal point of Martin Knakkegaard's article on the changed conditions of music production that the digitization of sound has resulted in. The article bases its argument, inter alia, on Heideggerian technological understanding and explains, along the way how, digitization seems to dismantle the classic division between process and product while at the same time challenging the actual sounding music artefact's provenance.

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