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CALL FOR PAPERS

Special Issue on “Design and Perception of Interactive Sonification”

GUEST EDITORS:

Tim Ziemer, University of Hamburg
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Niklas Rönneberg, Linköping University
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This special issue will address aesthetics and perceptual aspects of Interactive Sonification in the design and the evaluation stage. This is the third special issue of the Journal on Multimodal User Interfaces (JMUI) dedicated to Interaction Sonification, after those published in 2012 and 2019. Sonification and Auditory Displays are increasingly becoming an established technology for exploring data, monitoring complex processes, or assisting exploration and navigation of data spaces. Sonification addresses the auditory sense by transforming data into sound, allowing the human user to get valuable information from data by using their natural listening skills. The main differences of sound displays over visual displays are that sound can:

- Represent frequency responses in an instant (as timbral characteristics)
- Represent changes over time, naturally
- Allow microstructure to be perceived
- Rapidly portray large amounts of data
- Alert listener to events outside the current visual focus
- Holistically bring together many channels of information

Interactive Sonification is the specialized research field concerned with the use of sound to portray data, but where there is a human being at the heart of an interactive control loop. Specifically it includes the following areas (but not limited to), in which we invite submissions of research papers:

- interfaces between humans and auditory displays
- mapping strategies and models for creating coherency between action and reaction (e.g. acoustic feedback, but also combined with haptic or visual feedback)

- aesthetic and perceptual aspects of the display (how to relate actions and sound, e.g. cross-modal effects, importance of synchronization)
- applications of Interactive Sonification
- evaluation of performance, usability and multimodal interactive systems including auditory feedback

For this special issue, we encourage the submission of works focussing on:

- perceptual aspects of sonification, including methods from the field of psychoacoustics in the conceptualization, design, and evaluation of sonifications, as well as the use of interactive sonification as a means to carry out psychoacoustic experiments in an ecological and interactive way.
- the relation between Interactive Sonification and other modalities
- the aesthetics of Interactive Sonification, focusing on the design of the sonic interaction, and for example how it can influence understanding, acceptance, engagement by users

SUBMISSIONS:

Submissions must represent original material. We explicitly invite authors of papers for events like the [Interactive Sonification Workshop \(ISon 2022\)](#) and other relevant conferences to submit substantially reworked and extended versions of their manuscripts. Authors are requested to follow [instructions for manuscript submission](#) to the Journal of Multimodal User Interfaces and to submit manuscripts at the following link: <http://www.editorialmanager.com/jmui/>. The article type to be selected is “Special Issue S.I. : Sonification”. An [Editorial Manager tutorial](#) is available online.

IMPORTANT DATES:

Deadline for paper submission: 15 March 2023

Notification of review outcome: 15 May 2023

Camera-ready version of accepted papers: 15 August 2023

Estimated publication date: Autumn 2023

For more information contact:

Dr. Tim Ziemer

Institute of Systematic Musicology,

University of Hamburg

phone: +49 40 42838 4857

e-mail: tim.ziemer@uni-hamburg.de

web: www.kulturwissenschaften.uni-hamburg.de/ziemer