



INSTITUTE OF  
PHILOSOPHY  
SCHOOL OF ADVANCED STUDY



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'Hearing-in': Philosophical perspectives on sonification  
Room 104 Senate House (<http://www.sas.ac.uk/about-us/contact-us>)

We commonly use non-speech sounds to learn about their sources: Hearing a car horn, for instance, warns us that a car is coming, and where it is coming from. When we listen to a piece of music, we turn our interest to the properties of sounds themselves, in such a way that the sounds stop representing an independent object. What should we then think of the new techniques where sound properties are used to represent scientific data - and not sources? Does sonification require a new kind of listening, or does it compare to musical listening?

The new methods of sonification consists in using direct data-to-sounds mappings or more indirect mappings to transform data relations into perceptible relations in the acoustic signal. Sonified data are especially useful to reveal dynamic patterns in phenomena such as traffic, seismic waves or brain activity. They also manage to tell us something about other properties of these phenomena, for instance, whether a brain is functioning well or not.

Despite its recent progress, sonification has not yet been the object of philosophical attention. This workshop aims to examine some the theoretical challenges raised by sonification, and to explore the relevance of specific examples for our philosophical understanding of auditory and music perception, and of scientific representation.

#### PROGRAMME

12.30-1.00pm: Welcome (coffee and sandwiches provided)

1.00-1.15pm: Introduction, Ophelia Deroy (IP, London)

1.15-2.15pm: Chris Chafe (Stanford), "From Musifications to Intelligible Data Sonifications". Comments by Barry Smith (IP, London)

**ABSTRACT:** My dozen years of composing sonifications in collaboration with scientists, MD's and engineers has produced a range of outcomes. Data sources have included Internet traffic, greenhouse gas levels, ripening tomatoes, DNA sequences from synthesized biological parts, sea level rise, fracking and seismic signals and brain waves. These outcomes span concert music, gallery sound art and applications for practical monitoring devices. I will present examples of both real-time and non-realtime approaches and some of the first considerations in attempting to translate extra-musical data into music and sound.

2.15-2.45pm: Discussion

2.45-3.30pm: Nick Bearman (Liverpool) "Sonification of spatial data: combining vision and sound". Comments by Matthew Nudds (Warwick)

3.30-4.00pm: Discussion

4:00-4:45pm: Tea break

4:45-5:30pm: Paul Vickers (Northumbria) "Sonification and Aesthetic Intentions".  
Comments by Emily Caddick (IP, London and Cambridge)

ABSTRACT: Abstract: This talk will take a look at the field of sonification from an aesthetic perspective. Starting with some theoretical foundations of sonification and visualisation processes we will consider the possible semantic gap that exists between the intended and perceived meanings of representational processes. Sonification as a design practice and problems around aesthetic intentions are then explored and issues raised along the way will include differing interpretations of aesthetics and the problems this poses for sonification design, the relationship between sonification and music and sonic art, and the nature of listening in decoding the intended meaning of a sonification.

5.30-6.00pm: Discussion

6.00-6.30pm: General discussion