## ORIGINAL ARTICLE

## Living with alarms: the audio environment in an intensive care unit

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**Abstract** This article treats the use of sonification in Percy Military Training Hospital's intensive care unit, through an interview with Anaesthetist Professor Bruno Debien. It starts with a description of the environment completed by some technical information concerning the equipment. This is followed by a commented transcription of the interview with Bruno Debien and concludes with reflections on the nature of audio alarms and their relation to different modes of listening.

Keywords Sonification · Alarms · Music · Perception

## **1** Introduction

I was introduced to Dr. Debien by chance and happened during the course of our conversation to mention my research into artistic sonification. Surprised by his openness to my ideas, and probing a little further, I discovered that his own working environment is much dependent on sonification, and also that he has an interest in music.

In preparing the Locus Sonus symposium and subsequently this special issue of AI & Society, I formulated the title: Sonification: How? Why? What? Where? It struck me

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that these questions were clearly answered in Dr Bruno Debien's working environment. It occurred to me that it could be of interest to work those questions in reverse in order to explore the connections—both points of divergence and points of convergence—between medical and artistic uses of sonification.

I was particularly interested in how he as a 'user' perceived this sonification. It was my conjecture that with its connection to the human body, and the very concrete often vital role played by the sonification of data in the hospital setting, medical sonification, despite being of a different register to artistic sonification, would nonetheless provide a productive parallel in terms of the corresponding intensity of engagement, and the shared elevation of real-time data to a special status through sound.

My visit to Percy Hospital started with a guided tour of the Intensive Care Unit, during which Dr. Debien provided a descriptive commentary, focusing particularly on the signification of the sounds that we heard. Following the visit, we returned to his office where he answered my questions. I later asked him to clarify some of his answers via email. I have translated his responses from the original French.

## 2 Description of the environment

Hospital Percy is a military hospital situated in the south of Paris that provides care for both military and civilians. The intensive care unit is underground, (second floor basement) this is common for emergency wards since ground floors tend to be reserved for reception areas and vehicle access to a basement area is simple, whereas accessing higher floors adds complication and therefore risk. A consequence is that there is no natural light.

This article is based on the interview with Professor Bruno DEBIEN, Anaesthetist Director of the intensive care unit, Percy Military Training Hospital, Paris.

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