First-person research in the arts: exploring the values behind new music technology

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Figure 1: Instrument designers making fictional musical instruments - As if by Magic workshop, Genoa, Italy, March 2018

INTRODUCTION

Our work is grounded by the idea that a designer "express a scenario of the device in question - a script out of which the future history of the object will develop" [1]. Although individuals will add their own interpretation, the *script* will become a major factor for the understanding of uses and interactions.
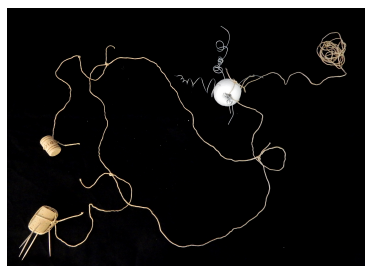
Figure 2: SonicAlarm - a wire based instrument with attachments to be loosely hooked to both upper and lower limbs. The artefacts emphasises the notions of low control and stochastic behaviour

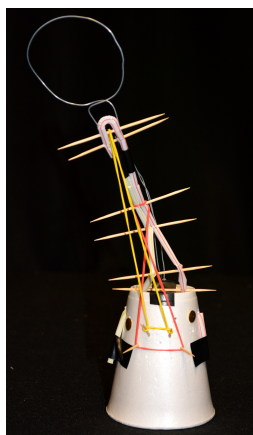[1]See, for example, the **Practice-Based Research Workshop** at NIME 2014

Figure 3: AntennaLele - an ukulele like instrument with a bendable neck. The designer focused on the alteration of a specific element (guitar neck) in order to accurately "shape harmonies and melodies"

It is possible to argue that, in the context of new instrument design, a luthier transfers into a music technology specific values [10]. Music researchers might *inherit* and *promote* values linked to specific social and cultural contexts [9]. On the other hand, musical priorities and concerns might arise from individual's practices-based investigations concerned with the creation of new musical works [5]. However, within the domain of musical interaction, HCI research often examines new digital tools and technologies which can carry unstated cultural assumptions [6].

This paper advocates for the need of a more explicit exploration and explication of the values, assumptions, and expectations that circumscribe music technology research. Within highly multidisciplinary design domains such as NIME - New Interfaces for Musical Expression, this process of acknowledgement would help to situate a large number of design choices, fostering the emergence and legitimacy of diverse methodological approaches and clarify, to the targeted communities, the intended goals and uses of specific artefacts.

DISCOVERING MUSICAL VALUES THROUGH MAKING

First-person research approaches have a varied history in the context of music and HCI [1]. Within this domain, the role of the 'practitioner-researcher' is crucial [5]. Indeed, instrument designers are often active artists and musicians engaged with the creation of new musical artefacts. This situation might imply that instrument designers are also the primary users of the technology they develop. While sharing their work, researchers often aim to exploit the particularities of specific artefacts while engaging with broader design concerns [4].

In our work we examined the ways in which individual designers express their own values through making through a series of design workshops based on design fiction methodologies [2] (see Figure 1). In particular, we engaged with instrument designers and musicians in order to explore the breadth of perspectives practitioners belonging to diverse technical and cultural contexts might have while envisioning not-yet-existing technologies for musical interaction (see Figures2,3, 4 and 5).

We organised a series of activities in which musicians were invited to built non yet existing musical instruments "as if by magic". The main goal of the activity was "the creation of *cultural objects*, allowing them to act as prompts for a story *we tell about ourselves*" [2]. Gradually moving away from the imagined device and its functionalities [3], our workshops focused on the emergence of those narratives, values and concerns associated to the artefacts we create.

DISCUSSION

One of the core elements of our research is the use of design approaches that could facilitate the acknowledgement of sources driving a specific vision of the world that precede the development of a new technology. In this regard, by reviewing the literature related to music in HCI contexts, it is
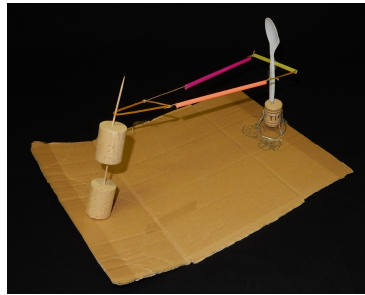
Figure 4: Orchestra - the conductor interacting with a musician of the orchestra. In this artefact the instrument disappears (transparent mediation technology) and the ideas of communication and interplay are privileged.

Figure 5: CorpoSuono - An organ like instrument with tubes filtering the air and a stopper to close them. The artefact focuses on the notion of timbre manipulation.

difficult to find works that explicitly establish connections between music research and first-person approaches adopted in other HCI domains.

Our contribution to the workshop discussion will provide an artistic account on first-person research for the critical understanding and development of music technology [8, 11]. We would discuss the importance of embodied intimacy [12] throughout the various design stages.

We believe that the music technology researchers could strongly benefit from a conversation with other HCI communities. In particular, much can be learned about approaches, attitudes and methods based on first-person research. In this regard, we would be particularly interested in tackling the following questions. How could first-person methodologies help to made visible to the researcher's eyes subjective and culturally situated meanings? How could first-person methodologies help while imaging and designing technologies for specific communities of practices [7]? How can we fully acknowledge the spectrum of values and concerns that might characterise the communities we are part of?

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