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ATTACHING AND BEING ATTACHED

A PARTICIPATORY APPROACH TO EXPLORING THE
MODALITIES OF RFID TECHNOLOGY IN THE CONTEXT OF
PERSONAL USE

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ABSTRACT

RFID (Radio-Frequency Identification) tags are small microchips that are embedded in everyday environments. They belong to a group of technologies used to attach digital information to the physical surrounding. Approached by an appropriate receiver, a tag transmits the stored information, such as the unique identification number, product information, personal data, or access rights. As a key technology of ubiquitous computing, it is often implemented in such a way that it is invisible to the user. This invisibility also leads to a position of power in which the technology is only understood and can be shaped by a few. As RFID is increasingly integrated into smartphones, the active engagement of those who carry it in their pocket can serve as an important field of research for alternative ways of usage.

In this thesis I explore the modalities of use that can be derived from the active collaborative engagement with RFID in a personal context. This is done through a practicebased participatory research methodology within a framework of critically questioning technology. A first series of experiments focused on my own engagement with RFID through design-specific methods of experimenting and hacking. The results of this study contributed to the development of the main part of this thesis, a participatory workshop. Through learning, engaging and reflecting together on RFID in the context of music media, the workshop aimed to situate the technology in a personal context and bring together different perspectives.

In the analysis of the findings, I identify different terms that I categorise as poles playing an important role in the exploration of how RFID is used. Those poles are the physical and the digital, the visible and the invisible, the tangible and the intangible, the intentional and the unintentional, the active and the passive, and the attaching and being attached. To visualise how they are connected to each other I sketch a model in which they form a space of interrelations. Rather than reducing them for the sake of easy comprehension this model offers an understanding of the modalities that acknowledges their complexity. Furthermore, I identify three types of connections, the individual, the collective and the creative, as more specific modalities of use related to the context of the workshop.

The main contributions of this thesis to a critical study of the modalities of use in the context of RFID are the categories described above and the emphasis on their interrelations, which can serve as a starting point for further research. Crucially, the involvement of users, through collaborative workshops, allows the identification of these categories and keeps them close to contexts of use.