# Maintaining Relationships With Our Devices

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## Abstract

Despite the current strong commercial trend towards wearable technology, the performance "Maintaining Relationships With Our Devices" considers the role that un-worn personal devices have played in most of our lives for over twenty years. This performance explores the distance we have had between our bodies and our devices and proposes that this distance has given us the space to form meaningful relationships with our devices. The relationship model of parent and child is used as an analogy for the relationship between the performer and their mobile device. This model of parent and child is used in order to propose the design of mobile device accessories that maintain and enhance this relationship. The performance also proposes a form of wearable technology that maintains relationships with mobile devices as we lose our distance to them as they migrate onto and into our bodies.

## Author Keywords

Performance; Interaction Design; Wearable Technology

## ACM Classification Keywords

J.5 ARTS AND HUMANITIES

## Introduction

Since mobile phones and laptop computers were brought onto the commercial market over twenty years ago, they have become a fundamental part of many of

our lives. They have lived and slept besides us, but so far they have not been physically attached to our bodies. This is predicted to change in the coming years as a result of massive investment into wearable technology and the decreasing size and costs of communication hardware and batteries equipment [3]. "Maintaining Relationships With Our Devices" is a performance that explores our relationship with our personal mobile devices as they exist with us now and how our relationships might be maintained were our mobile devices to become wearable devices.

## Grounding

*Theoretical*

"Maintaining Relationships With Our Devices" focuses on how we live with technology in the here and now and represents Paul Verbeek's materially oriented design approach [5]. Verbeek recommends that technology should not be valued for the future possibilities it proposes, but rather its actualities and engaging qualities of the technological artifacts themselves. This performance isolates and recreates everyday interactions familiar to most of us: sleeping next to our devices, charging our devices and maintaining the aesthetics our devices. This performance could be seen as a proposal for a method for the design of wearable technologies that maintain our relationships with our devices. This statement could be expanded as a call for design that works with human relationships that already exists, and builds upon them through making analogies within those relationships visible. This could perhaps result in quicker and stronger relationships between people and their devices.

*Ethnographical*

The fact that our mobile devices are not attached to our bodies allows us to project traits, characteristics and personalities onto them [1]. The performance "Maintaining Relationships With Our Devices" proposes that the traits we project onto our devices affect the manner in which we interact with them. Ethnographical research inspired by the work of Sherry Turkle [4] was undertaken as research for this performance. Research in the form of informal interviews with chosen subjects who have had experience with owning both mobile devices and wearable devices were used to explore what happened to their relationships with their personal mobile devices once the devices had become wearable. This research revealed that relationships between users and their mobile devices were felt most strongly in the moments when their devices required their direct attention. One of the subjects interviewed was a diabetic who had recently transitioned from using an insulin pen to having a wearable insulin pump that required far fewer daily interactions [Sam, personal communication]. The research revealed that once the device was wearable and there were fewer interactions the subject forgot that they had the device, and therefore momentarily forgot that they were diabetic. The fact that the user could forget that they had the device weakened the emotional connection with the object as a separate entity, but strengthened the notion that the wearable pump was part of themselves, and that they were now more like a cyborg.

## Method

The method of creating this performance and the props featured within it was inspired by Giulio Jacucci's thesis *Interaction as Performance* [2]. Jacucci applies certain aspects of performance studies to interaction design

Figure 1: The Cradle, where the device is charged.



Figure 2: The Changing mat, where the device is cleaned.



Figure 3: The Foetus, an example of wearable technology.

and provides methods to analyse interactions by focusing on the expressive movements that reveal our moods. These methods inspired the exaggerated use of the analogy of parent and child that is visible within the performer's relationship with the mobile device. This analogy was based on observations of people interacting with their devices. I saw people run to their device when it called out to them, get anxious when the device needed sustenance, cradle the device next to their head whilst they slept and become frantic were the device taken too far away from their bodies. The analogy of parent and child is communicated to the audience through the use of tools such as designed props, costume and choreographed movement.

## The Performance

"Maintaining Relationships With Our Devices" is a looping performance that runs for approximately five minutes before beginning again. The set up is simple and within a 3m x 3m space with minimal lighting and set requirements. The performance follows one "day in the life" of the performer and device from waking up to going to bed. Reflecting the previous ethnographical research, the performance focuses on the actions where we remember that we own and rely on devices. These moments of remembrance used in the performance are when we charge our devices (*Figure 1.*) and when we maintain and clean our devices (*Figure 2.*). Postcards with still images from the performance and a short text explaining the theory behind the performance, similar to the abstract of this paper, are available at the front of the set for the audience to take in order to gain deeper conceptual understanding.

*Charging our devices*
The performance begins with performer and the device asleep, the performer lies beneath a white sheet and the device rocks in a cradle, plugged in and charging its battery. The cradle is fitted with an Arduino servo motor and a photocell sensor and so begins rocking all by itself once the device is laid down. The use of the cradle to recharge evokes recognition that our devices are dependent on us to function; most people do not yet own devices that charge themselves. The materiality of the cradle, with its frilly edges and soft blanket, reminds us of our own childhood beds.

*Using our devices*
The performer wakes and pulls back their sheet. They unplug the device and slide the device into a marsupial skin pouch on their stomach (*figure 3.*). The performer stands and adopts a pregnant pose in order to interact with their device; back arched and stomach pushed forward. The performer lovingly strokes the latex skin covering the touch-screen of the device in order to open applications and write messages.

*Caring for our devices*
The final scene in the performance is the cleaning of the device. Tools that we use for our own bodies and the bodies of our children, such as cotton buds and pads, are used to clean the surface of the device. Soft, deliberate, caring motions are used and attention is paid to every crevice. Using beauty tools and caring movements that we normally use on ourselves on our devices reflects the thought that rely on our devices and so need to maintain their wellbeing so that they stay functional.

## Audience Experience

"Maintaining Relationships With Our Devices " is framed as a live performance in the belief that live performance is the most effective way to fully display the relationship present between the performer and their device. Nuances lie, and are inherent within, the physical movements that connect the performer with their device. The caring strokes of the skin, the loving handling and evidence of co-dependent care all carry the real meaning of the performance that might be lost within still images, or even film.

The performance is aimed at an audience that is familiar with uses of technology and is aimed at prompting a feeling of recognition. The use of current technology (iPhone 5) shown as part of an unfamiliar configuration is deliberate. The desired emotions evoked within the audience are entertainment, amusement and recognition. These reactions would hopefully mean that the audience had registered a familiarity with the relationship analogy of parent and child proposed by the performance within their own relationship with their personal mobile device.

## Wider Implications of the Performance

"Maintaining Relationships With Our Devices" proposes the use of performance to communicate design concepts. I believe that there is space for further links and blurred lines between the fields of interaction design and performance. Performers, skilled in aware and thoughtful movements and expressions, are valuable tools when exploring how movements communicate our emotions within interactions. The world of design would be a different place were film scenarios and photographs of design work replaced by live scenario performances, where the expressiveness

and emotions of the performer within the interaction are communicated in real time to the audience.

## Conclusion

The performance "Maintaining Relationships With Our Devices" is the result of a materially orientated design process that focuses on the actualities of technological artifacts. Following Jacucci's method, the materiality and configuration of the performance is with the aim of highlighting the expressions within the interactions between the performer and the device. These expressions communicate the emotional relationship present to the audience. This grounded approach to technology that we live with now is evident within the example of future wearable technology presented in the performance.

Video link:
https://www.youtube.com/watch?v=vqIFcKyk9sA

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