Contraception and Hormones within Interaction Design

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Abstract
In 2018 a new contraceptive method will be made available to women in the form of a programmable microchip that is implanted under the skin. A small electric current melts a small dosage of the contraceptive hormone Levonorgestrel into the users bloodstream [3]. The contraceptive microchip works for up to sixteen years and so reportedly comes with a remote control component that is handed to the user so that they can de-activate and re-activate their own fertility if they want to attempt to conceive a baby during that time period. This position paper firstly outlines my past research investigating the implications of the new form of contraception from an interaction design perspective before introducing my current research area; hormones within interaction design and describes how this research is relevant to the workshop Hacking Women's Health. Finally, this paper describes my personal aims and possible contributions to the workshop.

Author Keywords
Women's health; digital technology; intimate care; taboo; contraception; hormones;

ACM Classification Keywords
J.3 [Computer Applications]: Life and Medical Sciences—Medical information systems

Figure 1: Pen marks on my arm made by participant to represent the implantation of the contraceptive device.

Figure 2. Remote control modeled by workshop participant featuring fingerprint recognition technology for encryption. One half is for the man, one for the woman.

Speculating on the Contraceptive Microchip

My past research exploring the interaction design related implications of the technologisation of implantable contraceptive methods founded my interest in women's health technology and feminist HCI [1]. With this research I aimed to mitigate the *"technological fix"* [4] that this new form of contraception offers through using interaction design research methods to speculate on the implications for future female users.

This research employed a range of methods including an expanded performance ethnography [2] to understand the lived experience of the current, non-technological contraceptive implant through asking five women to re-enact their own implantation on my own body, them playing the role of the nurse or doctor (figure 1). I also held design workshops asking participants to model their own remote control to their imagined contraceptive microchip (figure 2) and created speculative design films imagining the opportunity of the contraceptive microchips to mediate sexual relationships. (Video Link: https://vimeo.com/179940380). One major contribution of this research to the field of interaction design was the compilation of areas of concern for potential adopters such as hacking, the use of the remote control component as a weapon and women's trust of invisible contraceptive technologies.

Hormones within Interaction Design

I have just this week begun my PhD studentship at the IT University of Copenhagen, supervised by Anna Vallgårda, where I propose a thesis opening up the field of hormones within interaction design. Within this novel research, I plan to define our internal hormonal processes, which can influence our emotions and moods, as a component within our interactions with technology. I am interested in the ethical, political and bodily implications of how and why we visual our own hormonal data through technologies such as menstrual cycle tracking apps and how this influences our lived experience of the world. The total scope of my research is yet to be defined, but one concrete area I will be exploring, relevant to the topic of Hacking Women's Health, is menstrual cycle technologies. I also plan to engage with how the taboo of women's health has influenced past research and how this can be mitigated within research today.

Biography, Relevant Skills and Aims

My background is in dance and performance art. I have worked with performance and embodied practices within interaction design for the past 4 years as a part time researcher with Professor Susan Kozel. I graduated from my Masters in Interaction Design from Malmö University in August last year. I am interested in exploring the value of applying embodied and performance-based practices to draw out lived experiences with women-related technologies and the value of speculative design to make tangible, and therefore criticisable, future technologies that could effect women's lives. I would like to attend the Hacking Women's Health workshop in order to build a network of researchers engaging in women's health research and to especially develop my understanding of the field of feminist HCI as I see it is a necessary component of my research. My skills include ideation, basic digital prototyping and performance and bodily research practices.

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