

How can we design sexual technologies that touch well?

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Cyberfeminist Imaginaries as a Method for Exploring Digital Touch

I am a design researcher operating at the intersection of sexuality & HCI (SHCI) (Kannabiran et al., 2011) and imaginaries through speculative design (e.g., Dunne & Raby, 2013) and/or design fiction (e.g., Tanenbaum, 2014). My research builds on a cyberfeminist perspective inspired by Haraway (1991) which contains the epistemological notion of knowledge as situated and views the relation between technology and gender as non-binary on an ontological as well as identity-oriented level. Additionally, my research is not aimed at designing technologies that fix and optimise intimate and sexual relations or bodily performances. Instead, it seeks to creatively support and sustain personal integrity, healthy interpersonal relations, and representation of marginalised people in design of future technologies. These aims build partly on a crip technoscience perspective (Hamraie & Fritsch, 2019) and partly on software critic Chun's thinking (2017). Chun imagines a potential in the otherwise peculiar phenomenon of phantom vibrations by asking: "So, rather than trying to fix [our new perceptions], how can we use these phantom vibrations—in which we touch, or feel touched—as grounds for, or revelations of, a more creative and habitable future?" (p. 169).

On this basis, I explore and imagine future intimate and sexual technologies through imaginaries and speculation, which are ways of catalysing cultural, social, and

political implications of technologies and their relations to humans.

Knowledge from speculations come to matter because it can be part of shaping our understandings of the implications of phenomena such as touch. Bellacasa (2017) describes the relationship between touch technologies and speculation in the following way:

"The worlds into which touch will attract us are not written in its technologies or in the purported nature of touch's singular phenomenology. The concrete differences made when reclaiming touch and reinventing touching technologies for everyday life are all but neutral; they will be marked by visions that touch us, and that we want others to be touched by, speculative visions of touch—touching visions." (p. 111).

Speculative visions of touch make us aware of dynamics that are not neutral, and this gives us tools to understand further how we can design something that 'touches well' equally physically and ethically.

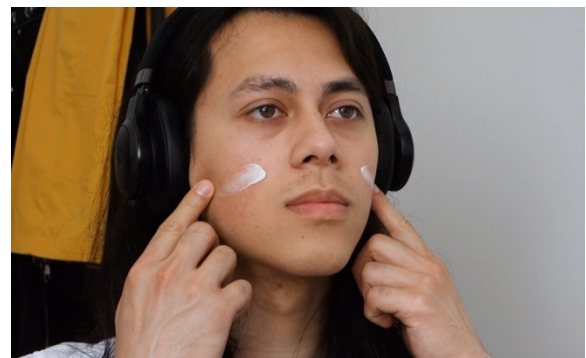


Figure 1. Together at a Distance with Sirena. Design fiction short film by Brynskov, 2020.

What is Intimate and Sexual Digital Touch?

Touch is a central component in intimate and sexual relations. Furthermore, digital devices may change the ways in which we

touch each other physically in our intimate relations. For instance, they can allow us to touch another person at a distance or to touch bodies through mediations with other qualities such as vibration, heat, and contraction, and this can affect the cultural, social, and political aspects of the experience.

An example of touch at a distance is the bluetooth remote-control sex toys designed by Lovense called “Max” and “Nora” (2024). With these toys, Lovense promises to make one able to feel their partner at a distance through either a dildo or a fleshlight. Another example of touching in digital intimate spaces is the Lush 3 egg vibrator (also by Lovense) which is used both in private and by so-called camgirls on platforms such as Twitch (e.g., Ruberg & Lark, 2021). Finally, on a less sexual level, the Hugshirt by Cute Circuit (2024) allows one to send a physical hug by hugging oneself while wearing the shirt, because this makes the shirt on another person’s body contract.

These ways of touching each other are entangled in complex structures and relations that are part technological and part cultural, social, and political. When designing for sexual wellbeing and sexual health, I argue that the ethical questions and technological possibilities should be considered equally and interchangeably. I have done this through three imaginaries about digital touch that I will present in brief in the following.



Figure 2. The Polyphonic AI Hat. Design fiction short film by Brynskov, 2019.

The three projects are two design fiction films (*Sirena* and *The Polyphonic AI Hat*) which can be accessed on my Vimeo channel (Brynskov, 2024a), and one speculative design artefact called *Cloud Breathe Lust* which can be accessed on AIR Lab’s website (Brynskov, 2024b).

Imaginaries on Sexual Digital Touch

Sirena

As a comment to the “Max” and “Nora” sex toys, I wanted to imagine less gender binary and more ambiguous ways of touching sexual bodies at a distance (e.g., not focused on genitals). For that, I designed the digital lotion *Sirena* (see Figure 1). *Sirena* is based on smart dust which is tiny Internet of Things (IoT) sensors. By rubbing the lotion onto your skin, the signals collected by the sensors are translated into music that one listens to in a headset. By connecting to an anonymous other person’s *Sirena*, two people can experience a shared moment of intimacy in a non-gendered and experimental way that may give way for exploring alternative power balances between the lovers. Thus, this project explores some of the cultural implications of intimate digital touch.

The Polyphonic AI Hat

To illustrate the diversity of women’s possible reactions to intimate touch, I designed *The Polyphonic AI Hat* as a sex educational tool. It was designed on the basis of a wish to open up for nuances in notions of consent and sex drive in intimate relations and to challenge a binary ‘yes’ or ‘no’-understanding of them. I gathered vocal data from 30 persons who identify as women who re-enacted reactions to touch with their voices to exemplify a whole polyphony of reactions. Some examples are: “Your hands are nice and warm” and “I’m not quite ready yet” (see Figure 2). The hat encourages one to

pursue open communication and listening to each other rather than taking things for granted and, at worst, acting based on possibly stereotypical assumptions about what e.g., women like and don't like. The hat is loaded with a dataset from the 30 women and each time one touches the hat, it plays a new reaction from the dataset. In this project, touch was used as an educational tool for users to expand their knowledge particularly on social implications of touch.

Cloud Breathe Lust

To explore sexual rights in digital devices related to lust, I designed the speculative design artefact *Cloud Breathe Lust* (see Figure 3). The design is a sexual technology that gives access for marginalised people to express their lust towards someone. In other words, it supports marginalised people's sexual integrity and contains the imaginary of a future where they are surely recognised as sexual subjects, which is otherwise not the norm (e.g., Addlakha et al., 2017; Wilkerson, 2011). Through alternative bodily engagements of breathing and sensing temperature changes, the artefact is a communication tool for the feeling of lust in a teasing way. It involves two persons. When one breathes onto the cloud, the blow is translated into heat on the other person's arm as an expression of lust, and a mediated intimate space is established. *Cloud Breat-*

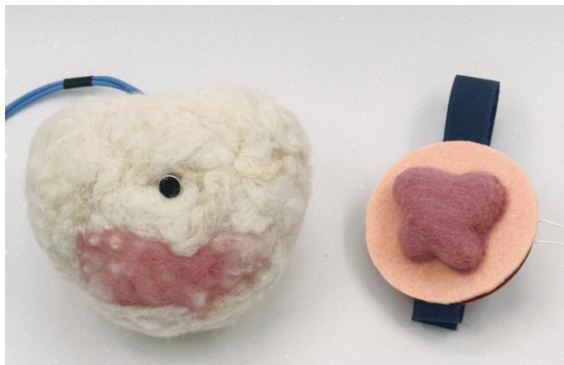


Figure 3. Cloud Breathe Lust. Speculative design by Brynskov, 2024.

he Lust is focused on the political implications of touch: Who gets to touch and be touched by these sexual digital devices?

Principles and Future Explorations of Intimate and Sexual Digital Touch

In conclusion, four main principles I have been working around when exploring intimate and sexual digital touch in the three imaginaries are: 1) Non-binary and ambiguous understandings of gender and intimate and sexual touch of the body. 2) Technology as a mediator for human touch. 3) Other senses such as breathe and heat for touching someone. 4) Touch as a sex educational tool.

These principles are all part of an experience-centred approach, but one that is specifically attentive towards cultural, social, and political implications in touch technologies and their surrounding relations.

Furthermore, my projects are centred around touch between humans, mediated by technology, but it could be relevant to explore further the ethical implications of touch between humans and technology (e.g., robots) as there is a growing attention to this also in the field of sexuality (e.g., Su et al., 2019). Like it is already happening with the example of the baby seal Paro (PARO Robots USA, 2014) that supports intimacy in elderly care, one could imagine intimate and sexual technologies being proposed as a substitute for human-to-human intimacy in disability contexts as well in the near future, which would most likely imply new cultural, social, and political implications of touch that would need to be explored and disentangled.

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