

Disciplining Touch

A Struggle for Bodily Imagination in Neoliberal Contexts

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THIS PROJECT, *WAYS of Being Cyborg*, explores how technological advancements reshape our sensing and relationship to our own bodies, both individually and socially. The presentation focuses specifically on touch as an essential avenue of expression and a means of cultivating kinaesthetic creativity, body-awareness, proprioception, and interoception.

Touch is increasingly framed as a modality to be outsourced to machines, with little attention given to our own tactile culture. Rarely do we receive direct feedback on our tactile actions, except in therapeutic settings or specific skill assessments. Since the early UI design of haptic devices in the 1990s, interest in tactility has been taken up by HCI. Scholars such as Höök and Alfaras emphasise how biosignals can enhance bodily awareness, foregrounding the need for a more intentional « education of the senses » that includes touch (Alfaras et al., 2020 ; Windlin & Höök, 2024) .

Our work critically examines the quantification of touch as a lived experience through an artistic installation. The trajectory of the work will be established; initial exploration of the potential of an Electrical Impedance Tomography (EIT)-based tactile sensor (Abdelwahed et al., 2022), developed at the host institution, which embodies the ultimate aspiration of artificial sensing skin. Beyond its then current function, a touch encoding and analysis of touch perception was envisioned. During the attempted realisation we encountered technical and conceptual limitations. Rather than abandoning the inquiry, we shifted the approach - developing Touch Analyser, an artistic black box installation that simulates similar effects without explicit functionality. Framed within the post-humanist discourse, the object critiques the reduction of human identity to information patterns and argues against the devaluation of embodiment in favour of information-processing models of the self (Hayles, 1999). As the Touch Analyser invites viewers to interact with it, it “choreographs” their behaviour, revealing the implicit literacy demanded by such systems. After a sequence of exchanges, the screen returns an abstract feedback, such as: « Your touch is 46% comforting, 35% dominant, 17% sexual, 2% insecure. »

This speculative device emerged not as an alternative to the EIT-sensor, but as a way to engage with same questions from a different angle, demonstrating the value of artistic research in extending beyond data-centric models, allowing speculation and inquiry into aspects of touch perception that might remain inaccessible within conventional scientific frameworks. Touch Analyser not only exposes the implicit expectations embedded in technological touch sensing, exemplifying Floridi's expansion of the term 'envelope' (Floridi, 2014), it also questions what is truly being measured and how these measurements, even in failure, inform our understanding of embodiment.

By presenting Touch Analyser and its development process, this work aims to:

- shift the focus from touch as a sense to be technologically replicated to touch as an experiential phenomenon under examination.
- reinterpret the relationship between quantitative and qualitative approaches in constructing felt experiences, informed by Alfaras's concept of somadata (Alfaras et al., 2020).
- frame data-centric scientific models of embodiment as generative rather than descriptive (Stalder, 2024).
- elaborate on the ways in which artistic methodologies can expose, challenge, and reframe dominant technological narratives about the body, perception, and interaction.

It simultaneously raises more general critical questions on:

- the role of interdisciplinarity in resisting commodification of health through metrics (Lupton, 2016).
- the circularity of scientific knowledge production; how current models of human experience feed AI based systems that in turn explain the human experience?
- possible interventions into neoliberal ideologies underpinning technological advancements that shape our sensory experience.

RÉFÉRENCES

Alfaras, Miquel, et al. (2020). From Biodata to Somadata. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, ACM, 1–14. DOI.org (Crossref), <https://doi.org/10.1145/3313831.3376684>.

Windlin, Charles & Höök, Kristina. (2024). SKETCHING SOMA BITS. *Designing Interactive Systems Conference*. www.academia.edu, https://www.academia.edu/90606543/Sketching_Soma_Bits. Accessed 22 Oct. 2024.

Abdelwahed, M., Zerioul, L., Pitti, A., & Romain, O. (2022). Using Novel Multi-Frequency Analysis Methods to Retrieve Material and Temperature Information in Tactile Sensing Areas. *Sensors*, 22(22), 8876. <https://doi.org/10.3390/s22228876>

Hayles, N. Katherine. (1999). *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. University of Chicago Press. University of Chicago Press, <https://press.uchicago.edu/ucp/books/book/chicago/H/bo3769963.html>. Accessed 20 Nov. 2024.

Floridi, Luciano. (2014). *The Fourth Revolution*. OUP Oxford.

Stalder, F. (2024). un(real) data, episode 1, (In) *dividuality and the Quantified Self* [w/ Felix Stalder], Aksioma, Institute for contemporary art Ljubljana, [<https://aksioma.org/unrealdata-ep.1-felix-stalder>](<https://aksioma.org/unreal-data-ep.1-felix-stalder>)

Lupton, D. (2016). *The Quantified Self: A Sociology of Self-Tracking*. Polity Press.