Body Politics: Unpacking Tensions and Future Perspectives for Body-Centric Design Research in HCI

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Abstract

Human bodies are deeply political as they carry historical and social meanings, including race, gender, sexuality, ethnicity, class, and abilities. The expanding body-centric research in HCI can be traced in the plurality of methods, theories and domains that take bodies as a central point of departure, when designing or studying interaction with technologies. This one-day workshop will bring together researchers and practitioners within the CHI community to discuss, map, and unpack emerging tensions and challenges on the topic of body politics for HCI. Interested participants are invited to submit examples from their own research, which, in the workshop, will be used as a point of departure to critically reflect on and expand body-centric methods, theories and domains through the lens of body politics. Workshop outcomes will include charting future directions for body-centric research to address challenges and opportunities of acknowledging that bodies are always political in design research.

CCS Concepts

• **Human-centered computing → Interaction design**.

Keywords

Bodies, politics, design research

1 Introduction and Motivation

HCI has been providing an interdisciplinary field for research that relates technology with human bodies. Historically, we can see how our understanding of human bodies and what implications this has for how we design and use technologies has been central to HCI research, from the early first wave HCI all the way to the third [6]. In the last decade, the fourth wave that is underway troubles notions of *the (single, human) body* by bringing to the foreground the entangled relationships between human and non-human bodies in designing interactive technologies and understanding their impact on our everyday sociocultural worlds (e.g.,[49],[17],[28]). There is

a range of sub-areas within HCI, and the CHI community in particular, who have in common their concern and focus around body-centric design research. This includes methods that engage bodies when developing novel technologies (e.g.,[25],[8],[46],[45],[36]), research that troubles and expands notions of the human body to account for the participation of more-than-human bodies in design (e.g.,[24], [43]), research that explores human-technology engagements through movement-based interactions, e.g. in the context of dance or other artistic practices ([34],[11],[12],[48],[38]), or research focused more explicitly on critical perspectives on bodies' participation – or lack hereof – in design, uncovering issues and tensions on marginalization, in/exclusivity, and ethics (e.g.,[42],[9], [16],[1]). These sub-areas, while differing in application areas, theories and methods, take bodies as a starting point for studying, designing and also critiquing technologies made *with* and *for* diverse bodies and bodily experiences. They question "what, how and why bodies in technologies?" and doing so, deal, directly or indirectly, with body politics.

1.1 Body Politics: Premise of this Workshop

Bodies are deeply inscribed with politics. The body or -more accurately- "bodies" [10], beyond being solely a resource for innovative design ideas, carry historical, social and political meanings. Indeed, questions of bodies are always also questions of race, gender, sexuality, ethnicity, class, and abilities related to the distribution of power. Feminist scholars have looked at bodies in terms of the spectrum of experiences that those meanings produce [50]. Federici, for example, has described "body politics" on a feminist ground as an analysis of the direct relationship between feudal and capitalist state economies in European societies and "the struggle for the body(ies) of women" [13]. Haraway, who has been very influential in body-centric and body-critical design research in HCI, has argued that human bodies and their relationships to technologies are political — both ontologically and in terms of identity [21]. With that, she had pointed towards the positionalities of the designers when shaping the (so often implicit) political views embedded in the technologies that, in turn, shape our bodies. Other feminist scholars, such as Grosz [19], redefined the rich tradition of looking at embodiment, which has inspired, for example, Soma design research methods [25], as possible tools for queering academic epistemologies and knowledge production. In HCI, Spiel, among others, have also stressed that bodies and how we design for them are products of social norms, which mainly affect those who have a 'minority body' within specific cultural and technological settings, such as "disabled, fat, indigenous, and/or black people" [42]. Additionally, accessibility, a growing focus in HCI for around ten years, directs design practices towards the recognition of the values of marginalized people's perspectives with the political aim to abandon the traditional focus on fixing and optimizing bodies with technologies [14]. Instead, researchers seek to shape technologies specifically for non-mainstream bodies and minds, as proposed in the Crip Technoscience Manifesto [20], explored by Forlano and Glabau [15] and used by researchers including Frauenberger et al. [18].

In this workshop, we aim to explore the power and responsibility that designers have in body-centric design research. We propose to examine, develop, and extend existing theories, epistemologies,

and methodologies involving the bodies in HCI by including their political and critical dimensions. We will also aim to problematize the notion of "body" in current and future research by posing three overarching questions:

- What are the theories that have influenced body-centric design research in HCI, and how have bodies been conceptualized in those research strands?
- What new openings but also ethical pitfalls emerge when attending to marginalized bodies or more-than-human bodies in research methods?
- How can we attend to the multiplicity of bodies while also keeping the significance and particularity of individual bodies and experiences when doing body-centric research in HCI?

2 Workshop Themes

Departing from these questions, the workshop discussions and activities will be structured around three themes. These will be used to invite interested participants to share their experiences from their own examples of conducting research on this topic. Additionally, the themes will support moving towards developing future agendas for body-centric research in HCI to address challenges and opportunities of accounting for body politics in this research space.

2.1 Theme 1: Theories Informing Body Politics in HCI

Our workshop will engage with theoretical backgrounds on body politics and propose questions such as: *How useful are the theories already informing existing critical research? How are these theories being used, and which theories might be missing? How do we balance the theoretical move towards the more-than-human with the felt reality of situated human bodies?*

Existing HCI research on the topic of body politics has integrated theories originating from political and emancipatory social movements such as feminism [4], critical race theory [35], and crip and disability studies [27]. Here, researchers adopt arguments made in these theories to question the status quo and challenge what kinds of knowledge we prioritise when designing technologies and what values we adopt and enact through our research. Another example of how theories inform the politics of bodies in HCI is how philosophical concepts are integrated into body-centric research. The recent more-than-human shift in HCI is grounded in non-human-centric epistemologies and ontologies that trouble definitions of "the body" [23, 47]. The more-than-human not only pertains to the non-human, but also to that which exceeds but is still of what we would account for as human [32]. This points to a tendency towards novelty and experimentation – but also to a need to retain a critique of those bodies that are still unseen (e.g. racialized, colonial bodies, etc.).

If we take as a starting point such theories acknowledging that bodies are always multiple, entangled and never only human [7], how do we then account for the human body and its sociocultural grounding – and what is the role and potential of technology in either reinforcing or challenging such norms?

2.2 Theme 2: HCI Methods and Approaches Informed by, and Enacting Body Politics

This theme questions: *Can body-centric design methods mitigate the tensions and avoid re-enforcing societal norms around bodies? What are the sociocultural and ethical implications of engaging with bodies in design research processes?*

There is a growing repertoire of design methods for deepening an understanding of the body in HCI, including Soma design [26], embodied sketching [33], body storming [37], and kinaesthetic creativity [44], among others. These methods highlight concepts such as bodily literacy [31], somatic connoisseurship [39] and sensibility that focus on the designers internal felt bodily experiences. The methods require the designers to focus on their capacity to feel with their own body and to relate to another body or bodies; and for this embodied sensory knowledge to be central to the design process. As these methods have been developed, so has a need to acknowledge the politics enacted through them [25, 26]. There are ongoing discussions about whose bodies are included in these types of research activities, highlighting the need for these methods to acknowledge a plurality of different bodies and bodily experiences. Other methodological considerations in relation to pluralising HCI research include the development of methods to involve people with different life experiences related to their bodily differences in HCI research. For example, using the "designing with" rather than "designing for" approach to designing for disability [5] and what adaptions need to be made to make participatory design accessible [30]. Other research addressed what considerations need to be made to design with people from different racial and socio-economic groups [22]. These approaches attempt to include a plurality of bodies in HCI research, but raise tensions and challenges. By defining the specificities of these bodies, do we risk making generalising and inaccurate assumptions about how they experience the world? And in relation to tokenism, are people with different bodies delegated unequal labour in terms of representing themselves? How do we mitigate not "ticking the diversity box" by involving people with a plurality of bodies while putting in efforts to improve the status quo?

2.3 Theme 3: Existing and Missing Domains of Body-centric Research

In the workshop, this theme will address questions such as *In which domains are politics of the body evident? And where are they missing or needed?*

Since our bodies are always present in our interactions with technologies, HCI has always designed for the body, but not always explicitly. Homewood et al. [23] traced the different conceptions of the body in HCI. They firstly traced the corporeal situatedness of the "user," then how the ubiquitous solitary "body" was slowly transformed into the plural form of "bodies" within design research, and finally by complexifying the composition of "bodies" so that they either already comprise more-than-human elements or invite further reconfiguration. Technological developments and the move into the third wave of HCI facilitated the "somatic turn" and the expansion of domains where we explicitly design for and with the body [40]. This included domains such as games, health technologies, work-related technologies and communication technologies. What

has not yet been as expansive, is the discussion of body politics in these diverse domains of body-centric HCI. One such exception that has expanded in recent years has been research on reproductive health, including technologies related to menstrual cycle tracking, pregnancy, menopause, and fertility treatments [3]. Here, research and design explorations of bodies and data entanglements have been conducted with an understanding of reproductive health that encompasses interpersonal and more-than-human relations as well as experiences of male, non-binary, trans* and infertile reproductive bodies, beyond women's reproductive bodies [29].

3 Organizers

Vasiliki Tsaknaki is an Associate Professor at the Digital Design department at IT University of Copenhagen. Her research combines materials experiences, computational crafts and somatic design methods. Through practice-based studies, she investigates and reflects on intersections of these areas, probing the space of designing for well-being and exploring (bio)data as a design material.

Sarah Fdili Alaoui is a Reader at the Creative Computing Institute at the University of the Arts London in interaction design, human-computer Interaction, and dance and technologies. She is a choreographer, a dancer, and a Laban Movement Analyst. Her research investigates the theory practice and methods of intersecting technological design with dance-making. Her research methods include artistic research, research-through-design, (auto-)ethnography, phenomenology and action research. She co-founded and organized the MOCO conference.

Sarah Homewood is an Assistant Professor at the University of Copenhagen. Her research is informed by her interest in how technologies both reflect and influence societal perspectives on bodies, specifically within self-tracking. Her current research attends to the design of technologies for chronic illnesses such as post-COVID syndrome and chronic fatigue. Her research methods include co-design and research-through-design. Her research is often grounded in feminist and phenomenological theories.

Jonas Fritsch is an Associate Professor at the Digital Design Department at the IT University of Copenhagen. He is head of the Affective Interaction and Relations (AIR) Lab. His work revolves around a creative thinking of interaction design, design processes, experience philosophy and affect theory through practical design experiments across human and more-than human bodies with interactive sound and physical interfaces.

Anna Brynskov is a PhD Fellow at the Digital Design department at IT University of Copenhagen. In her research, she explores futures of sexuality through a speculative design practice. She investigates political, social, and cultural implications in somatically intimate technologies and seeks new ways for design to support sexual health and sexual well-being for disabled people. Her research is rooted in feminist thinking, critical disability studies, and software critique. https://annabrynskov.com

Claudia Núñez-Pacheco is a Senior Lecturer at the Department of Computer Science and Media Technology at Malmö University. Her research investigates how to design from self to others, including how bodily ways of knowing can be used as materials for design ideation, evaluation, insight and empathy. More recently, she has

embarked on the exploration of foreignness and nomadism from an affective and material perspective. http://claudianunezpacheco.com

Kristin Carlson is an Associate Professor of Creative Technologies at Illinois State University and former conference chair for MOCO. She researches the moving body in technology through a lens of defamiliatization and somatic practices, while exploring the role that computation plays in embodied creative processes.

Katta Spiel is an Assistant Professor at the Vienna University of Technology (TU Wien). Drawing on methods from (Critical) Participatory Design and Action Research, they collaborate with deaf, disabled, neurodivergent and/or nonbinary peers in conducting critical assessments of materialised norms, exploring novel potentials for designs from previously disregarded positionalities, and figuring out what access means and to whom. https://katta.mere.st

Marco Gillies is a Professor of Computing at Goldsmiths, University of London and former conference chair for MOCO. He researches virtual reality and artificial intelligence with a particular focus on the body and movement as a medium for interaction. His work looks at ways in which machine learning can be used express embodied movement knowledge within interaction design.

Christina Harrington is an Assistant Professor in the HCI Institute at Carnegie Mellon University. Her research focuses on understanding and conceptualizing technology experiences that support health and wellness among older adults and individuals with disabilities. She is the Director of the Equity and Health Innovations Design Research Lab.

4 Website

We will use a dedicated website **bodypolitics.com** (preliminary URL) to advertise the workshop to a wide audience, to publish the workshop proceedings and to distribute accepted submissions. We will also use the website to document the workshop outcomes aiming to disseminate them to the broader HCI community. The workshop organizers and interested participants will maintain the website after the workshop.

5 Pre-workshop Plans

We will encourage the participation of a diverse range of researchers within the CHI community by advertising the workshop in various groups and mailing lists. Interested participants should submit a presentation on a current or past research project related to the workshop topic. The project can be presented in any format, including (but not limited to) image, text, website, application, video, audio, or performance, typically in the format of 2-4 pages in the CHI 2025 ACM template (single-column). The submission must include a short reflection on the reported project through the lens of body politics, attending to the workshop themes and questions. The workshop organizers will review the submissions and select participants whose work has a strong body-centric research focus in relation to methods, theories and/or design processes. The selection criteria are: The authors must (1) involve design processes and exemplars related to body-centric design research in HCI, (2) speak to tensions or critical aspects pertaining to bodies being involved in the research.

Accepted participants will be given access to a shared folder with all accepted submissions and invited to read them prior to the workshop. In terms of **plans to publish proceedings**, after participants' consent, accepted submissions will be published at the workshop website and at the CEUR Workshop Proceedings free and open-access online resource. Participants will also be invited to join a Slack channel to communicate with organizers and other attendees before the workshop. **We aim to attract between 20 - 25, with a maximum of 35 participants**.

5.1 Recruitment Strategies

The CfP will be disseminated across special interest groups such as ACM SIGCHI, and AccessSIGCHI, Facebook channels such as CHI Meta, and CHI Women. We will also send calls for participation via email to HCI mailing lists (e.g., CHI, NordiCHI, Feminist HCI) and disseminate the call directly among our contacts, research groups and social media channels. Additionally, we will reach special interest Slack channels and groups including Race in HCI collective.

Among the co-organizers are members of the International Conference on Movement and Computing (MOCO), a highly interdisciplinary conference series, existing for more than 10 years, which brings together a diverse range of researchers and practitioners from the arts, sciences, humanities and technology fields to study human body movement technologies. We also plan to disseminate the workshop to the MOCO community and, through a lens on body politics, invite interested participants to contribute insights into the body and movement for HCI. All these recruitment strategies aim to increase the reach and inclusivity of the event.

6 In-Person Event

The **one-day** workshop is planned to take place **on-site** at the CHI 2025 conference in Yokohama, Japan. This is to encourage and facilitate the bodily presence of researchers in a shared physical space. This decision was made in full recognition that members of the CHI community, who will not be able to travel to Japan, might be excluded. As such, **we will ensure there is a variety of engaging and high-quality asynchronous events**, as well as multimedia documentation of the event itself, posted on the website, to involve research community members who cannot attend the conference. This is also aimed to expand the workshop discussions and activities beyond the day (before and after). We will use the workshop website and Slack channel as platforms for communication with researchers interested in the topic beyond the workshop, aiming to develop a broader community around body politics in HCI.

We require a room with a projector and tables where people can work in small groups. In order to accommodate bodily activities and active movement in the room, the tables should be mobile. For the workshop activities, we will use mostly craft materials provided by us, including post-it notes, markers and paper, textiles, clay, and yarns. Participants can also bring their own lo-fi prototyping materials if they wish.

7 Workshop structure

Through discussions, bodily exercises, mapping activities, and lo-fi prototyping, the workshop will aim to create a safe space for gathering and sharing different perspectives, identifying challenges and charting novel directions for critical ways of engaging with body politics in HCI in the present and future. Activities in the day will

Time	Activity	Description
9:00-9:30	Introduction	Workshop goals and schedule (organizers)
9:30-9:45	Participants' intro	Quick round of participants' name and affiliation
9:45-10:00	Exercise 1	Attunement to space and other bodies (facilitator: Kristin Carlsson)
10:00-10:30	Group work 1	Brief presentations of position papers/note down relations and concepts
10:30-11:15	World Cafe activity	Groups move around: Populate workshop themes/questions
11:15-11:30	In plenum	Presentation of outcomes of World Cafe activity
11:30-11:45	Coffee break	Rest and socialize
11:45-12:00	Exercise 2	Breathing exercise (facilitated by Vasiliki Tsaknaki)
12:00-12:30	Group work 2	Discuss emerging tensions, start preparing for Group work 3
12:30-13:45	Lunch	Off-site
13:45-14:15	Exercise 3	Think through the body (facilitated by Sarah Fdili Alaoui)
14:15-15:45	Group work 3	Use lo-fi prototyping to materialize chosen tension(s) and suggest future openings
15:45-16:00	Coffee break	Rest and socialize
16:00-16:30	Group work 4	Finalize materializations and prepare presentations
16:30-17:00	In plenum	Groups present/perform their concepts
17:00-17:30	Wrap-up	Closing remarks and plan next steps

Table 1: Detailed Workshop Schedule

be split into two phases: *Map and relate* and *provoke, debate and materialize*. The morning (*map and relate*), starts from the participants' submissions, projects and reflections. A broad relational mapping of existing research will be developed, populating the three workshop themes (i.e., theories, methods, domains). This will unfold progressively through breakout discussions in studio-style sub-groups, accompanied by short presentations and sharing in plenum. The afternoon (*provoke, debate and materialize*) phase uses the relational mappings and morning discussions as points of departure to challenge current research towards imaginative future paths. Participants in smaller groups will be asked to generate lo-fi material prototypes or use their bodies to speculate on questions emerging from the morning presentations and discussions. The making process will be inspired by the magic machine method [2] and by fabulating through collages [41], where participants can prototype and experiment with materials without being constrained by feasibility. Groups will present and/or perform their outcomes in plenum, and we will end with broader reflections on future directions on body-centric design research in HCI, including potential tensions and risks in this space. Bodily exercises will be conducted throughout the workshop to 1. activate the shared space of the workshop and invite participants to become attentive to the multiplicity of bodies participating, 2. activate a "thinking through political bodies in movement" to reflect on one's body politics in movement to accompany the discussions, mapping and prototyping activities.

8 Accessibility

This workshop centres around the politics of *a plurality of bodies*, thus strongly shaping our commitment towards accessibility during all the stages in the event organisation. During the collection of expressions of interest, we will ask participants to inform us if they have particular accessibility requirements to be considered. We will work in close collaboration with the workshop chairs to ensure participants will have access to the support they might need,

aiming to make the workshop experience safe and comfortable for them. We acknowledge that our bodily activities will not all be experienced in the same way by all bodies; therefore, we will encourage participants to opt out or adapt the proposed activities if necessary. If they are willing to, participants could also discuss their personal experiences or concerns related to the activities, which will, in turn, feed into the research discussion.

The material generated before, during, and after the workshop will be collected in a variety of formats and archived for later use and reference. This will include recording key moments of the physical workshop in audio or video formats and strongly encouraging participants to write alt-text descriptions on the images/figures they submit. We will follow accessibility design guidelines, ensuring that our website and CfP conform to recommended visual requirements.

9 Post-workshop plans and Outcomes

We plan to publish a summary of the outcomes on the workshop website, aiming to disseminate the discussions and learnings to the broader HCI community. We will also use the website to create an online catalogue showcasing the projects that will be brought to and discussed in the workshop. Those will show the diversity of methods, approaches and critical perspectives on bodily-centric research in HCI. We envision that, over time, more research projects can be added to this repository on "body politics in HCI". We will prepare a proposal for a special issue at a journal (e.g. TOCHI), based on the workshop goals and themes. Finally, the workshop aims to identify and bring together researchers who work in this research space, enabling further collaborations and exchange of methods, theories, and approaches, beyond the scope of the workshop.

10 Call for participation

Bodies are deeply inscribed with politics as they carry historical and social meanings, including race, gender, sexuality, ethnicity, class, and abilities. The expanding body-centric research in HCI can be

traced to the plurality of methods, theories and domains that consider bodies as essential when designing or studying technologies. In this one-day, in-person workshop, we will zoom into challenges and chart future perspectives on the topic of body politics.

We invite HCI-researchers interested in body-centric design research to collectively map, discuss and materially explore this area, by asking: 1. *What theories have influenced body-centric research in HCI, and how have bodies been conceptualized in those?*, 2. *What new openings or ethical pitfalls emerge when attending to marginalized or more-than-human bodies through different research methods?*, 3. *How can we attend to the multiplicity of bodies, while keeping the significance and particularity of individual bodies and experiences when doing body-centric research?*

Interested participants are invited to submit a short reflection on a current or past project, through the lens of body politics, attending to the above questions. This can take the form of a 2-4 page position paper in the single-column ACM template, but we also encourage visual documentation of design processes/outcomes, including image, text, website, application, video, audio, performance, and will accept alternative submission formats. More information on selection criteria and link for submissions: bodypolitics.com. At least one author of each accepted submission must register for the workshop and at least one day of the conference.

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