

Embodying phenomenology in interaction design research

Citation for published version (APA):

Stienstra, J. T. (2015). Embodying phenomenology in interaction design research. *Interactions*, 22(1), 20-22.
<https://doi.org/10.1145/2685364>

DOI:

[10.1145/2685364](https://doi.org/10.1145/2685364)

Document status and date:

Published: 01/01/2015

Document Version:

Publisher's PDF, also known as Version of Record (includes final page, issue and volume numbers)

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

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Embodying Phenomenology in Interaction Design Research

Throughout life, I have been taught to think by generalizing, ordering, discretizing, modeling, measuring, calculating, objectifying, structuring, and so forth. Educated in the Netherlands and trained as an industrial designer, I possess a skill set profoundly upon these approaches. With them, I feel acquainted and comfortable; they form a solid basis for my being in the world. But ever since I was introduced to the writing of David Abram [1] and embraced by Kees Overbeeke, becoming enchanted by his Designing Quality in Interaction group and their approach [2] to design *doing*, it became apparent to me that there is another way of looking at the world, another way of designing, another way of doing research.

What appealed to me was *phenomenology*. Contrary to the Cartesian method of analysis, this philosophy explores the nature of human experience in the concrete phenomena of daily life. It is characterized by a thorough rejection of the deterministic and objective approaches of the sciences that consistently overlook the ordinary everyday experience of the world around us. Instead, phenomenology embraces direct experience in open and dynamic environments, emphasizing that life and the world are deeply intertwined. Pertinent is that the world as directly experienced is hardly determinable; it is of an ambiguous and transforming nature.

Within the phenomenological tradition, acting is placed before thinking, contrary to thinking before being. Maurice Merleau-Ponty points out that we need a body in order to

experience the world [3]. According to the French phenomenologist, perception is inherently (inter-)active; it is a reciprocal interplay between perceiver and perceived. Merleau-Ponty suggests that meaning emerges in interaction from the relation between the acting body and the animate world.

The interaction design field has drawn upon this philosophical movement as a source of inspiration [3,4]. What inspired me was its attention to the uniqueness and subjective experience of people, which gave me a theoretical anchor for interaction design practice. Further, phenomenology provided me with valuable insights on how to make design comply with our rich, expressive bodies. Exploring the consequences of taking phenomenology as a departure for designing intelligent products and systems became the central topic in my work as a design researcher.

In order to apply the core values within interaction design research, a discipline still dominated by the traditional sciences, I believe it takes more than applying theory insights derived from phenomenology to design. In order to get the most out of my exploration, I attempt to take phenomenology beyond using it as inspiration for interaction design theory. I try to embody the phenomenological stance, to absorb myself in it, to live it in my approach to both design practice and design research in order to uncover its treasures and further the discipline. It does require me to stay faithful to the bald beliefs derived from a philosophy that has not yet fully landed. Likewise, it requires me to resist falling back on the Cartesian thinking that is part of the foundation of my work as a design researcher.

EMBODIED UNITS AND EMBRACING COMPLEXITY

It's not only the thinking paradigms that pose problems for phenomenology-inspired design research, but also the available tools. In the process of designing prototypes that function as my physical hypothesis, at some point it is impossible to ignore the consequences of objectified standardization. CAD machines demand millimeters; the weight of products is expressed in grams; animations are constrained by frame rates (Hz), dimensions, and resolution; our digital calendars are ruled by hours, minutes, seconds; a good amount of locations are reduced to room numbers or represented by geo locations; people are reduced to user IDs and IP addresses. The majority of sensors and actuators work with predefined thresholds, gauging, and discretized output. In general, buttons merely accommodate on and off, servos move with predefined speed, databases expect defined objects, and camera systems provide category-recognized identifications.

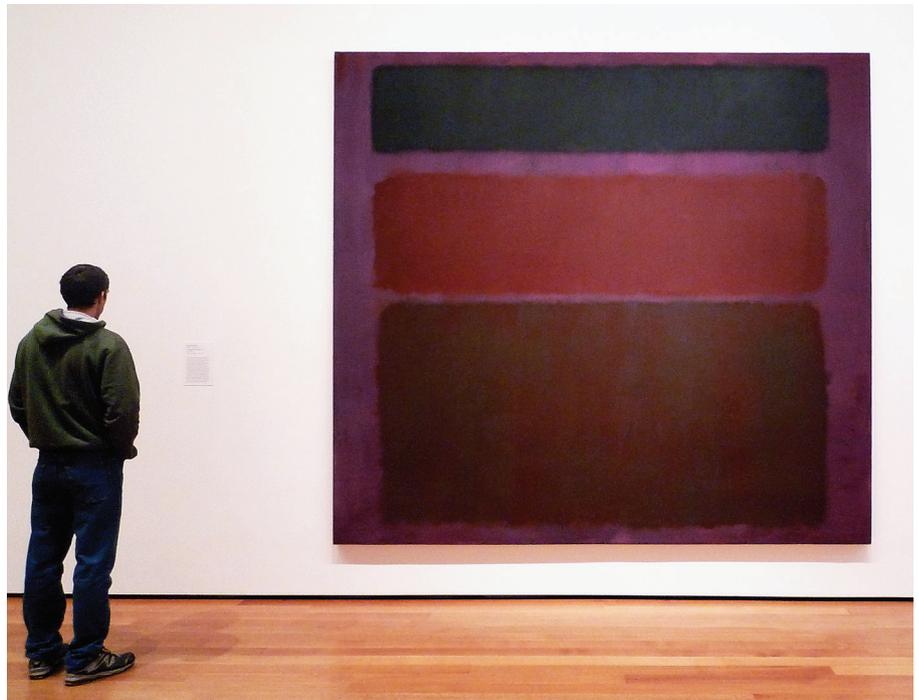
In and of themselves, these are all valid characteristics of technology (i.e., the units and measures that have calculable properties and the predefined, static, and reductive character of computing) used to develop functional and effectively engineered solutions. However, from a phenomenological stance, they hold limited value. They are not what I am looking for. These characteristics overlook the uniqueness of people and their rich, expressive, and embodied skills that are attuned to the open and dynamic character of context. People have different bodies, beliefs, and thus action possibilities within the world. To me, *experience* is pivotal, and so

measurements in these dimensions are somewhat less relevant. Whether something is far or close should not be expressed in millimeters. Phenomenologically speaking, its value ought to be expressed by its reachability by people with highly subjective perspectives. Sixty-seven degrees might be the way to describe and reproduce a certain angle, but if this concerns how far a door is open or closed, it is not that important. This involves a level of openness as a relationship between body, space, and pace of movement. I would design an embodied calendar to utilize the rise of the sun, one's hunger, and the opportunities for people to meet—not the disembodied predefined hours and minutes fixed in timestamps.

Systems that acknowledge a phenomenological complexity of being in the world are most likely not to follow if/then paradigms and much more likely to follow ones that embrace the complexity, holisticity, and continuity of context. The intertwined complexity of being and contextuality is not to be captured in discrete states. We do not deserve to become a reduced element within a fixed chain of procedures. Our embodied capabilities should not be reduced by the mere on/off functionalities of systems. I believe that while addressing context and functionality, technologies need to be opened up to the spontaneity and dynamic character of being in the world. It would require sensors, actuators, and computations that do not take over the decision making, but rather allow for meaning to emerge *in* continuous interaction. This should be opened up throughout most (if not all) layers of technology. In other words, it is time to reconsider the objective measures and metric systems (the discrete) and make them compatible with the subtle subjective and ever-changing qualities of life throughout (the continuous).

RESPECTING UNIQUENESS

From my perspective, technologies have reductive qualities toward people. User-model-inspired approaches to design tend to reduce people to grouped commonalities. The designed products that follow these models reduce people again accordingly. As a



philosophy, phenomenology embraces the uniqueness of people, whereas quantitative methodologies for design and research do not align with these characteristics of a complex world. Phenomenology-inspired design research thus demands an appreciation for and focus on the unique subjective experience of people without lapsing into generalizations, user models, mathematical descriptions, guidelines, and other Cartesian-inspired distractions that emerge from rationalism, objectivity, and reduction.

Instead of utilizing design research for seeking optimal solutions for *the many*, I seek to utilize it to bring out the unique qualities of the individual: the qualities that reside in the interaction between product and person, the qualities that embrace the rich, expressive continuity of our being in the (social) world. The greater commonality or generalizability is thus found in the subjectivity incorporated in the theory; within the ever-changing patterns; in the sense-making; in the hallmarks of being; in the phenomenology of perception. This poses the need for new evaluation approaches that encourage design thinking inspired by phenomenology (even though it is difficult to break with the idea that

evaluations are of lesser quality if they are not “objective”).

Phenomenology in design research holds crucial contradictions with contemporary science and state-of-the-art practice and tools in so far as it aligns with the holistic, continuous, and ever-changing qualities of contextuality. I invite you to advance technology that is grounded in a philosophical approach that respects people as unique skillful beings in a complex social world.

ENDNOTES

1. Abram, D. *The Spell of the Sensuous: Perception and Language in a More-than-Human World*. Vintage Books, New York, 1996.
2. Djajadiningrat, J.P., Overbeeke, C.J., and Wensveen, S.A.G. Augmenting fun and beauty: A pamphlet. *Proc. of DARE2000*, 2000, 131–134.
3. Dourish, P. *Where the Action Is: The Foundations of Embodied Interaction*. MIT Press, Boston, 2001.
4. Hummels, C.C.M. and Levy, P.D. Matter of transformation: Designing an alternative tomorrow inspired by phenomenology. *Interactions* 20, 6 (2013), 42–49.

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