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van Grunsven, J.B.

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# Making and embedding humane technologies: can artistic practices provide normative guidance?

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Janna Bertchen van Grunsven<sup>1</sup> 

## Abstract

In this commentary, I raise one question and one critical comment about Rietveld's normative claim that 'artistic practices afford embedding technologies better in society' (2019, p. 5). In what exact sense is this the case? It seems that Rietveld offers two interconnected but conceptually distinct answers to this question. The first focuses on art's habit-breaking possibilities. The second concerns art's ability to make the lived experiences of the stakeholders potentially affected by a given technology experientially concrete. I will discuss both points, and why I think more needs to be said about them.

## Keywords

Affordances, technology, art, normativity, habit

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I am honoured to be commenting on Erik Rietveld's inaugural address *The Affordances of Art for Making Technologies*. Rietveld's work, which has influenced my own research for over a decade, has always been multi-disciplinary in the true sense of the word. Not only has Rietveld contributed to the development of a 4E approach to mindedness that incorporates insights from different fields, including phenomenology, ecological psychology and neuroscience (Cf. Rietveld & Kiverstein, 2014). He has also consistently brought his work as a philosopher in dialogue with the artistic practices he engages in through *RAAAF* (Cf. Van Dijk & Rietveld, 2021).

One of the key claims in *The Affordances of Art for Making Technologies* is that artistic practices, particularly those pertaining to visual art, can play a powerful role in the pursuit of a 'humanistic' embedding of technologies. Such a humanistic embedding, Rietveld maintains, requires that 'engineers ... develop the skill of relating more sensitively to the socio-material practices they are intervening in' (p. 32). By itself, this idea is not new. Many philosophers of technology have long argued that engineers should develop skills that exceed the domain of the strictly technical, skills that attune them to the ways in which technologies and socio-technical systems have the ability to shape our values, our perceived possibilities for action (i.e., our

affordances) and our lived experiences (Cf. Roeser, 2012; Van den Hoven et al., 2015; Verbeek, 2011; Winner, 1980). Without discrediting the significance of such philosophical pursuits, Rietveld's address argues that artistic practices can make a *distinct* contribution to the humanistic development and embedding of technology (see also Roeser et al., 2018). More specifically – although Rietveld does not state it in these exact terms – artistic practices share something noteworthy with engineering practices that philosophy lacks, namely a focus on transforming the concrete material environment. By the same token, artistic practices also share something with philosophy that engineering practices typically lack, namely a tendency to critically interrogate our values, practices and habits. By sharing this critical attitude with philosophy and by sharing the focus on *world-making* with engineering, art thus affords a concrete yet reflective way of exploring and rethinking the possibilities that technological changes in our material environment may afford. In Rietveld's words,

TU Delft, Delft, The Netherlands

## Corresponding author:

Janna Bertchen van Grunsven, TU Delft, Delft, The Netherlands.  
Email: [J.B.vanGrunsvan@tudelft.nl](mailto:J.B.vanGrunsvan@tudelft.nl)

[A]rtists have the skill of opening up to possibilities for questioning and transforming established practices. They open up to unconventional affordances, including provocative possibilities for changing what we ... take for granted, for breaking habits (p. 32).

This is done through

[A] process of *material* engagement without knowing where we will end up. ... playful exploration can lead to the discovery of radical possibilities and meanings that the engineers involved had never considered, and sometimes to new ways of living with the technology (p. 17, my italic).

As someone who has been doing research on engineering ethics education – asking how we can get engineering students to critically engage with the ways in which they are shaping the material world and the experiential affordances available to people (Cf. Stone et al., 2020) – and as someone who has grappled with the ethically important and at the same time problematic role of embodied habits in our lives (Cf. Van Grunsven, 2020), I am by and large very excited about Rietveld's proposal. That said, I do want to raise one question and one critical comment concerning Rietveld's normative suggestion that 'artistic practices afford embedding technologies *better* in society' (p. 5). In what exact sense is this the case? It seems that Rietveld offers two interconnected but conceptually distinct answers to this question. The first focuses on art's habit-breaking possibilities. The second concerns art's ability to make the lived experiences of the stakeholders potentially affected by a given technology experientially concrete. I will discuss both points, and why I think more needs to be said about them, below.

## I. The normativity of art's habit-breaking possibilities

As Rietveld vividly shows in his inaugural address via a discussion of several of *RAAAF*'s art installations, (visual) art enables an exploratory reimagining of what the (socio)material environment affords. I am sympathetic to the idea that for this reason, art can play a fruitful role in the notoriously difficult but important task of imagining or anticipating how an emerging technology might transform societal values and affordances (Cf. Brey, 2012; Stilgoe et al., 2013). However, how exactly art can fulfil this role needs to be fleshed out in more detail. This is because the significance of art's ability to open up a (re)imagination of our future with a certain technology is, at the very least, normatively ambiguous.

To give a concrete example, various artistic sci-fi depictions of humanoid robots as romantic partners successfully set up an imagined world that affords a critical re-examination of our habitual attitudes

towards romantic love, loneliness and human-technology relations (e.g., the film *Her* or the HBO series *Westworld*). At the same time, these artworks have also been co-opted by sex robot developers aiming to frame our future with sex robots in a manner that makes them seem 'humanistically embedded'. Familiar artistic imagery helps frame sex robots as societally acceptable and ethically desirable technologies capable of mitigating an important societal problem (loneliness) and opening up a progressive reimagining of romantic love and sex. Yet a closer look at the technology itself reveals that pursuing the development of humanoid sex robots would in fact entail introducing highly privacy-sensitive data-mongering distributed system into one of the most intimate settings of human life (Van Grunsven, in press).

What this example shows is that the very same artwork can serve as a genuine source of critical reflection (calling into question our habits and attitudes towards romantic love, loneliness and human-technology relations) and as a source of problematic technology anticipation that contributes to an overlooking of important normative ethical considerations. As such, I want to invite Rietveld to specify, in some more detail, how exactly art as an activity through which affordances are reimagined and habits are broken enables a better embedding of technologies in society. It is one thing to ascribe normative ethical significance to art's ability to allow people to 'experience the changeability of the norms or practices that we take for granted'. It is another thing to say that this translates into a better embedding of technologies into society.

## 2. Art as a pathway for making people's lived experiences experientially vivid

Alongside their habit-questioning abilities, Rietveld argues that artistic practices and works of art can help make the lived experiences of an engineer's relevant stakeholders vividly concrete. In Rietveld's words,

Crucially, for making humane technologies, i.e., technologies that are well embedded in the human form of life, we should start from thinking of body subjects, in all their variety, engaging with the technology in their life world and how that feels; how they experience the world differently and relate to the socio- material practices they are situated in; and the different layers of meaning that a certain kind of technology can bring into the world (p. 29).

*RAAAF*'s visually stunning *The End of Sitting*, which affords active engagement and embodied exploration to those who are capable of entering the structure, is used as an example of an artwork that achieves this: 'The various mock-ups and the art installation afford feeling,

affectively experiencing, and imagining what it would be like to live by a different set of rules, to live the good life differently' (p. 30). Now, while Rietveld explicitly acknowledges that 'The body of the person makes all the difference for how they experience these real-life mock-ups', it is really only a certain type of body that is able to affectively experience *The End of Sitting* (p. 23). Specifically, as Figure 19 in *The Affordances of Art for Making Technologies* reveals, *The End of Sitting* is accessible to those of us who are able-bodied, slender and (relatively) young. Of course, one could argue that by being inaccessible to a range of people, *The End of Sitting* precisely promotes reflection on how certain types of bodies are excluded from contributing to how we rethink and reshape our socio-material environment. But I do not think that is quite right, since Rietveld's point is about the art installation's power *qua experience*—and as an experience, *The End of Sitting* is only available to some.

The point I am making here is, of course, related to the question I raised above about art as a habit-questioning resource. As an influential art installation, it strikes me as important to consider that *The End of Sitting* and the 'scientific explorations' it has afforded in virtue of its 'radically unconventional' nature sidesteps the lived perspectives of precisely those people (the obese person, the physically disabled person, the elderly person) who are already at risk of being habitually overlooked when we, as a society, including the engineers giving shape to society, explore and rethink what bodily well-being looks like and which affordances are worth introducing into our shared socio-material environment.

Hopefully, the question and comment I have raised in this commentary will serve as fruitful input for Rietveld's exciting new line of research.

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### About the Author



**Janna van Grunsven** is assistant professor in the ethics and philosophy of technology section at Delft Technical University as well as a research fellow in the research programme *Ethics of Socially Disruptive Technologies* (ESDT.nl). In her research she focuses primarily on issues in ethics and philosophy of technology, using insights from 4E cognition. She also conducts research on engineering ethics education.

### ORCID iD

Janna Bertchen van Grunsven <https://orcid.org/0000-0002-8751-1289>

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