Sitting kills, support standing:
Situating the embodied mind in a landscape of standing affordances

Humans are addicted to sitting. We sit even though we read everyday in the newspapers that “sitting kills” or that “siting is the new smoking”.

We sit at the breakfast table, we sit in the car, we sit at the office, we sit at school, and we sit in front of our laptop computers. One scientific study on the sitting epidemic (Van der Ploeg et al., 2012) followed over 220,000 Australians and found that those who sit 11 hours or more per day have a 40% higher risk of dying in the next 3 years than those who sit 4 hours or less. Even when one exercises for 30 minutes every day, one does not compensate for the many hours spent seated.

Why did you actually sit down here, when you came into this space? Why did all of you sit, even though many of you already knew that sitting too much is unhealthy?

You are seated because this entire environment is structured around being seated. In fact, our entire society is structured around sitting: movie theaters, cars, schools and restaurants are filled with chairs. In public transport, in a train, for example, one feels unlucky if one cannot sit. In our society we even use standing as a punishment for children, we make them stand in the corner.

I am a philosopher of embodied cognitive science. One of the main findings in my field of research is that it is not explicit thoughts or explicit intentions that drive our actions in everyday life but affordances (Gibson, 1979; Rietveld & Kiverstein, 2014). Affordances are the possibilities for action offered by the environment. The floor affords walking, a cup affords grasping and a chair affords sitting. And moving. And leaning on. When we encounter affordances they can get us ready to act on them (Bruineberg & Rietveld, 2014). This bodily readiness is why chairs can
suck us in. If we radically change the affordances available in a certain place, we will be able to generate behavioral change.

What would our world look like if we do away with chairs and standing becomes the new norm? We, that is RAAAF and visual artist Barbara Visser, have started experimenting with affordances that support standing in different ways, including supported leaning and hanging. The first space we have tried to re-imagine is the office of the future, of 2025.

I am showing you some of the experiments we did in order to find out what feels good in a world without chairs. The aim of these playful investigations was to discover unconventional affordances that can support us while working.
Chairs have been improved thousands and thousands of times, supported standing, however, has long been neglected and is still open for exploration.
These are the first prototypes we built:
The best positions we discovered come together in this art installation, which is provocatively titled The End of Sitting. It is a large experimental landscape of standing affordances:

What you see here is the use of two different positions to work standing. The one on the right is similar to a conventional standing desk, but the one on the left is much smarter. Unlike a traditional standing desk it offers support for your back and provides tilted support for your feet. It is comfortable but not too comfortable. While standing in it, the largest muscle group of your body – in your legs – is constantly active, which keeps your heart working and blood circulation flowing. If you are seated too much, your large leg muscles are not being used which means that blood sugar and fat are less likely to be used and burned. Whereas while standing in the End of
Sitting, after about 30 minutes or an hour, your legs will get tired and you will switch to one of the many other positions in the landscape, perhaps laying down a bit.

It is this dynamic of alternation that avoids that you will stay in the same position all day, which would be unhealthy as well. To evoke this alternation we built an entire landscape of affordances with many different positions.

This will not be the final version of the End of Sitting landscape. This is just the start of a long experimental trial phase up to 2025. We will continue experimenting and make it more inclusive for elderly, blind people and people with other disabilities over time. Empirical research by the
University of Groningen investigates how people use and experience this landscape. Here you see some of the camera images recorded during their study:

Some of the research questions in that study were: Do the subjects become more energetic? What does working in the landscape mean for their wellbeing?

This kind of scientific research is crucial for improving the landscape. In fact this project integrates insights from several disciplines: visual art, architecture, empirical science and philosophy.
Now that you’re aware of the fact that affordances drive our everyday behavior, you may start changing the material structure of the different places in which you spend your life. Replace affordances that trigger unwanted, unhealthy or counterproductive activities with new ones.
Replacing old affordances with new ones provides a way of thinking about scaffolding change in other domains of society as well. Discovering unorthodox affordances that can change our practices is *creativity* in action. Using this kind of discovery we can make the transition from our sitting society to a more active and healthy society.

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