

# Internet of things (IoT)

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**D**o you receive it too? Can't you turn it off? Weekly I receive reports from Microsoft, Google and Apple with detailed information about how much time I spent behind the screen, how effectively I manage my calendar, with whom I have emailed the most and how my behaviour evolved compared to last week or last year.

I also get detailed information from Google about how many miles I have walked, cycled and travelled. At the moment, 7.6 billion people live, more than 7.5% of all 107 billion people who live now and have lived ever before. That in itself is already a considerable burden for the planet, since we humans put our stamp on our environment. After all, we transform nature into culture, we are a technical species. Moreover, via the Internet of Things (IoT) at least every person with smart technology increasingly exists alongside their biological existence. Digital twins. However, the awareness of this seems to be nil, both among politicians and at knowledge institutions. What's up with that?

Hundreds of sensors in our smartphones, cars, houses and other "smart" devices feed the IoT, that monitors both our functioning, and that of the smart devices. This way Google "knows" where I have walked, for which window I stood still, etc. Subsequently, patterns are derived from this: Jan Willem is interested in guitar stores and bookstores. This can be linked to my websearch behaviour. It requires little imagination that an accurate reflection of my actions can be obtained, much like a radiologist who generates a detailed image of the unborn baby in the womb by sensing and computing the echo's of the transmitted sound. In the IoT my personal behavioural patterns emerge in my digital twins. If I go to sleep later than usual, and I get more steering corrections in my smart car than normal or I make more typos when composing an e-mail the next morning, it determines my need for sleep. Likewise it becomes visible that I fall in love or have a casual affair. And my existence is not only doubled in the digital twins produced by Google, but also in those of Renault, Tesla, Spotify, Microsoft and Candy-crush. Dozens of times.

## A multiple of all current energy

Last week physicist and sensor technologist professor Heinrich Wörtche told us at his inaugural lecture that in 2050 the IoT - which processes and stores all sensor data - will require a multiple of all the current energy together in air traffic and meat consumption. Living an environmentally friendly life will be just a drop in the ocean. With every step we take, servers all over the world start to analyze and store sensor data from the smartphone in our pocket.

Politicians and university administrators never speak about this. On the contrary, the only refrain they repeat is "more technology, the future now". And they wash their hands in innocence. Philosopher and sociologist Jürgen Habermas states that the system supplants ("colonizes") the lifeworld. The rational discussion in the lifeworld has died down. Although data protection legislation has emerged, the IoT-using companies will probably have laughed at this. At most it gave their lawyers some work to prepare extra small print.

What now? Contrary to expectations, technologists often take into account the shadow sides of technology. The companies they work for and politicians don't. It is of great importance that economic and social disciplines make a serious effort to restore the balance between the system world and the lifeworld. We don't have to go back in time for that, many technological developments are hopeful. But more is not always better, and saying afterwards that we didn't know is a sign of scientific and political failure. Let us now start by giving economic and social disciplines a central position in the study and implementation of living technology. After all, it is 5 to 12 and time to make progress in protecting our lifeworld against the growing power and influence of the system world!