

‘Is this going to make our lives better?’

During the early developmental stages of a new technology, ethicists and engineers are still able to influence how that technology will ultimately affect our lives, says professor of philosophy, Jeroen van den Hoven, of the Faculty of Technology, Policy and Management.

As the scientific director of the 3TU Centre for Ethics and Technology, you also work together with researchers from the other 3TU centres of excellence, including bio-nano applications, intelligent mechatronics systems, and sustainable energy technologies. Do you notice any reluctance on their part?

“Always. It’ll be a while yet until good relationships between ethicists and engineers become commonplace. Right now people are still a bit wary, testing the waters. But let’s not forget that we’re still in the pilot project stage.

“As soon as researchers realise that you’ve really studied their work, the reserve often disappears. It helps that many of our researchers have dual backgrounds in philosophy and technology. I think that’s necessary, because you must be a credible partner in the debate.”

Do the working relationships vary between the centres of excellence?

“In some centres, where the researchers have already endured a degree of public criticism, the collaboration is very practical in nature; these researchers are well aware of the fact that you cannot simply do whatever you want, because if you do, you will face resistance: less funding, political turmoil, and so forth.”

That sounds like a defensive strategy.

“It is. When the corporate sector first started talking about socially responsible entrepreneurship some 30 years ago, there was also a defensive ring to it. ‘Why do we do this?’ ‘Because the customers are asking for it’. But these days, this has become part and parcel of how they think, especially in the larger companies.”

In July you travelled to New York City to receive the World Technology Award, in the ethics category. The candidates for these awards are nominated by the previous award winners – including Peter Singer and Al Gore. Apparently the research at the 3TU Centre caught their attention. Were you surprised?

Jeroen van den Hoven

The scientific director of the 3TU Centre for Ethics and Technology is sometimes referred to as an ICT philosopher. Even though Professor Jeroen van den Hoven (Rotterdam, 1957) received his doctorate for his work on information technology and moral philosophy, and although as a researcher and political consultant he is still engaged in the ethics of ICT, the label appears to be somewhat restrictive now.

In 2004, Van den Hoven became a professor at TU Delft’s Faculty of Technology, Policy and Management, where he now also serves as the deputy dean. He studied philosophy at Erasmus University Rotterdam, where in 1998 he was appointed endowed professor of information and communication technology.

Van den Hoven was the architect of the socially responsible entrepreneurship programme of the Netherlands Organisation for Scientific Research (NWO), which is a major funder of the research conducted at the 3TU Centre. As a researcher, Van den Hoven has published on such subjects as value-conscious design, the downside of the internet, and the possible effects of nanotechnology (radio frequency identification tags) on our privacy.

Van den Hoven, together with prominent liberal politician Frits Bolkestein and others, compiled the recently published collection ‘The politics of things’ (*De politiek der dingen*), in which researchers from the 3TU Centre detail the ‘moral and political significance’ of ‘technological artefacts’. Van den Hoven is married and has two children.

“Not entirely. The 3TU Centre employs about 50 researchers, and they are often told at international conferences and congresses how marvellous it is to have such a unique institute with such a high concentration of leading researchers in the field of technology and ethics.

“Another confidence-booster is that the James

Martin 21st Century School in Oxford wants to work with us. James Martin is one of the gurus of the information age. He gave Oxford 150 million pounds to fund a scientific institute where scientists could study the technologies that will define the next century. Yale and the Royal Institute of Engineering in Stockholm are also partners in our research. And there is also a 3TU initiative in place to establish an international graduate school for technology and ethics.”

Why is your research so popular?

“Because it’s multi-disciplinary: we not only work together with engineers, but also with social and behavioural scientists. These are also disciplines rich with empirical knowledge. We don’t just shout out the first thing that comes into our heads. Proper research methodology is crucial when considering ethical issues. You must also look at the problems proactively, at the moment when moral considerations are still relevant. Traditionally ethicists were accustomed to waiting until the negative effects of a new technology emerged, but by then it’s too late.”

In the introduction to the publication ‘The politics of things’ (De politiek der dingen), you quote the social scientist and historian of technology, Thomas Hughes. To paraphrase Hughes, when technology is still in its infancy, it’s still possible to control its application and scope. But once a technology has gained a foothold, it mostly becomes a case of that technology influencing us, rather than the other way around.

“One must try to get involved in the early stages. But then you are also confronted by Collingridge’s dilemma, which boils down to this: at the moment when you’re still capable of controlling the technology, you have too little information to know how best to do it. And by the time that information becomes available, there is little left to control.

“So you need to pick exactly the right moment, which means you must keep up with the new technological developments. You must also have a keen eye for the problems that ➤



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can crop up. Being alert starts with realising that new technology creates new opportunities, but yet also always closes off other avenues. You can compare this to building a wall to hang a picture on. The wall also has limitations. Anyone designing technology will also be consciously or unconsciously shaping other people’s scope for action.”

And since technology influences our lives in this way, an ethicist must think about the positive and negative effects at the appropriate time?

“Yes. The first question you must ask yourself is: will the technology improve our way of life? That is always what the makers say, but can they really make it happen?”

What are the criteria for assessing whether a certain technology improves our way of life?

“That’s a tricky question, a ‘can of worms’ as it were, but as a researcher you’re obliged to try and answer that question.”

In ‘The politics of things’, the idea arises that we might need to use technology to express moral values; for example, a car that won’t start if the driver is drunk. In future, will people really have to weigh the ethics of their actions much less often?

“We’re already heading in that direction. I often say that we come from a world in which it was possible to do things that were not desirable. You could for instance simply stand up and punch one of the people in this hotel lobby in the head. Of course such an action is not only undesirable, but also morally reprehensible and against the law, but you could do it if you wanted. We’re now heading for a world in which we’ll find it virtually impossible to do anything undesirable, especially in certain places.

“We already have buildings where you cannot enter a room or an information system unless you have the proper authorisation. The technology of individually traceable RFID [radio frequency identification, ed.] tags offers a wealth of possibilities in that respect. “If we continue along the same lines, we can assume that anything that isn’t allowed will soon become impossible. And then people will no longer have to think for themselves. What’s more, they’ll start to think that anything they can do is therefore allowed: ‘I was able to gain access to this information,

so how was I supposed to know I was doing something wrong?' We haven't got to that point yet however."

Technology to protect you from 'your evil side' – isn't that rather paternalistic?

"Cass Sunstein, a professor at Harvard Law School and currently one of Barack Obama's regulatory czars, published a much-discussed book on soft paternalism this year, entitled *Nudge – Improving Decisions About Health, Wealth, and Happiness*. Soft paternalism means nobody is forced to make the right choices. People are simply nudged in the right direction. As an example Sunstein describes a self-serve restaurant where the vegetables and fruit are placed in easy reach, while the fried food has been pushed to the back. He calls this 'choice architecture'. Another example is car seatbelts, which start beeping if people don't fasten them.

"Of course, the right choice isn't always obvious. And people could also simply have bad intentions, in which case soft paternalism and choice architecture won't get you very far."

The 3TU Centre conducts research into the use of robots in a variety of guises: as an (overly) obedient soldier of the future, or as a home carer who makes sure Mrs Smith takes her medication every day.

"There is something to be said for 'carebots'; they're a smart solution to a real problem, i.e. the ageing of the population and spiralling health care costs. But society could also decide that it simply refuses to leave its elderly parents to the care of robots.

"Experiences with this in Japan do not seem so negative, however. The elderly there say that they don't mind the carebots at all – perhaps because of the privacy and anonymity they offer. The elderly are also relieved that they no longer have to ask their families for help, because the carebot is always there to help them.

"There is however another side to this argument. Japanese senior citizens may be reacting positively to the carebots because the technology has been made available to them and hence everyone expects them to use it. That is the social pressure of not being a burden on others, which is also sometimes encountered in the issues surrounding euthanasia."

Can ethicists and engineers prepare for the possibility that technology will end up in the wrong hands?

"I think they can. Perhaps the design for a central database should include a 'dead man's switch', which could be used to make the database disappear – and with it all the collected personal information about citizens – if there were a real danger of abuse by a dictator."

Moral values can be expressed in new technology. But does this also work the other way round? Does technology affect our ethics?

"Yes. It's not a case of one-way traffic. Take Facebook for example. The younger generations don't care so much about privacy; they post all kinds of stuff on the internet, which they sometimes come to regret later, but nevertheless, the familiarity with a new technology makes us less anxious about certain things. But there is certainly also a flip side to the internet.

"Technology also offers possibilities of gaining experiences that in turn can determine your identity. Just driving a car once gives you a feeling of freedom and independence, and once you've experienced this for a while, you attach great value to it."

And thus we can never persuade people to stop using their cars. Should an ethicist consider these psychological effects when assessing new technologies?

"Yes. And we can ask ourselves whether we want people to eventually consider themselves satisfied consumers of this new technology. If not, is it then ethical to develop that technology?"

Can you imagine ethicists ever recommending that engineers stop developing a certain technology?

"I don't think that would happen easily, but it's not entirely inconceivable. After all, the development of super-fast swimsuits was recently stopped at the request of the sport's governing body. Perhaps we will also one day ask engineers to stop developing human enhancement applications designed to turn people into ever more intelligent cyborgs. Or a technology that can slow down the ageing process: our planet could never handle all those lively 200-year olds.

"This begs the question: should issues like these be debated in a democratic context? And if so, what kind of political institutions would we need to do this? Parliament isn't really up to it, I think. And a lack of expertise is not the only reason. Over the past decades, liberalism has been the dominant political philosophy, and this means that the government has deliberately not interfered in questions about how certain types of technology relate to a good lifestyle. Liberalism regards these issues as primarily private matters. This view is no longer tenable, however. In the 21st century, it's impossible for technology policy to be neutral, because technology isn't morally neutral either."

In 'The Politics of Things' you state that terms like sustainability and good management are empty concepts unless one can demonstrate how they can be incorporated into the design of new technology.

"Indeed, and it isn't enough to simply start shouting that privacy is also important. You must be able to show in detail exactly how privacy affects a design, otherwise it is simply gratuitous.

"The field of applied ethics once had an eye for concrete problems. The next step could be for us to start linking applied ethics to design problems, so that we can actually solve them. In addition to designing new technologies, this would also mean establishing new laws, procedures, institutions....

"Thomas Pogge, a fellow philosopher at Yale University, came up with the idea for a Health Impact Fund, which is a smart system that, for example, creates incentives for large pharmaceutical companies to make medication available at cost price to large groups of people in developing countries who would otherwise never have access to those drugs. An ethicist should never shy away from devising such practical design solutions. This is far better than expending all your energy on endlessly repeating theoretical principles and their implications and spouting moral outrage."

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