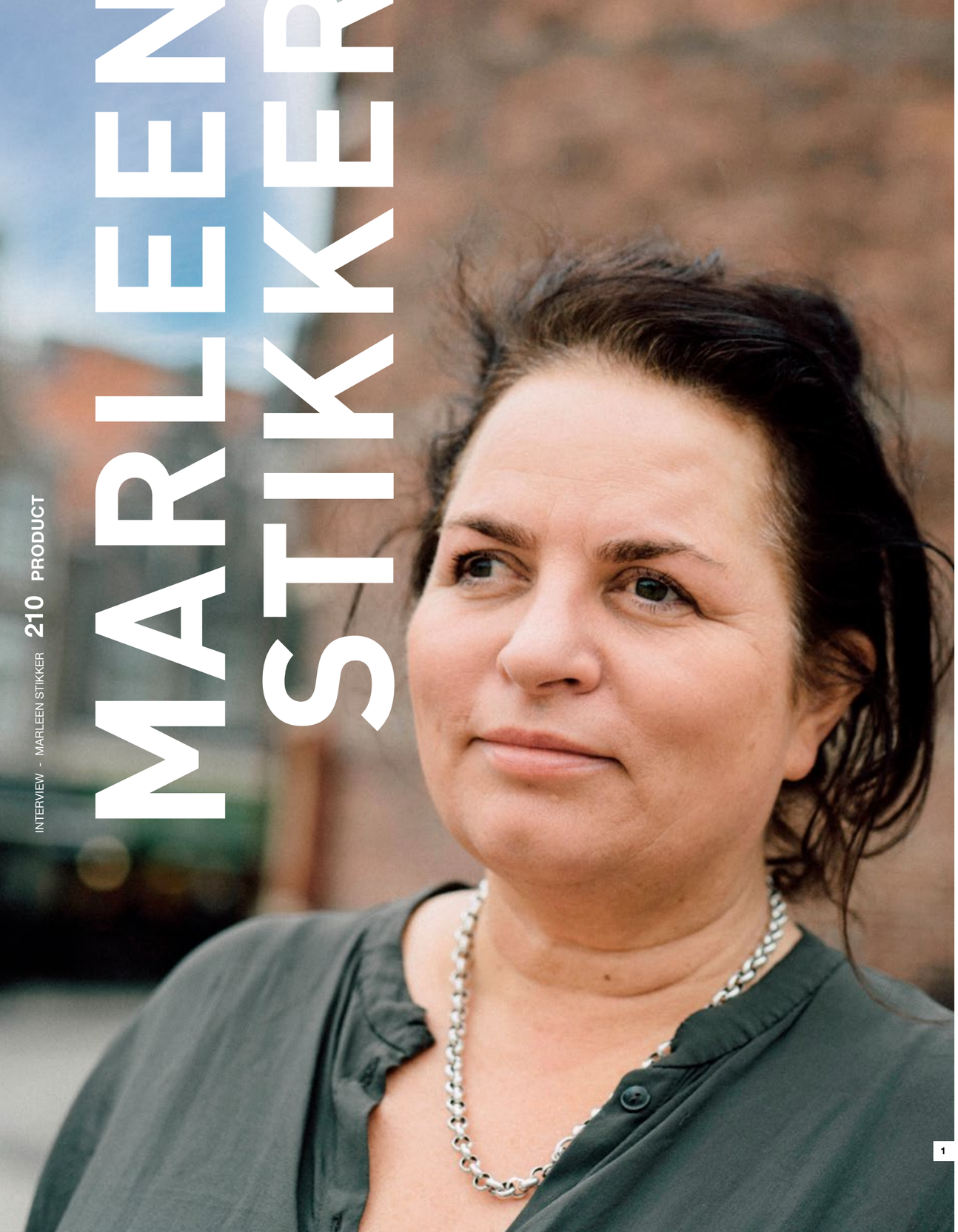


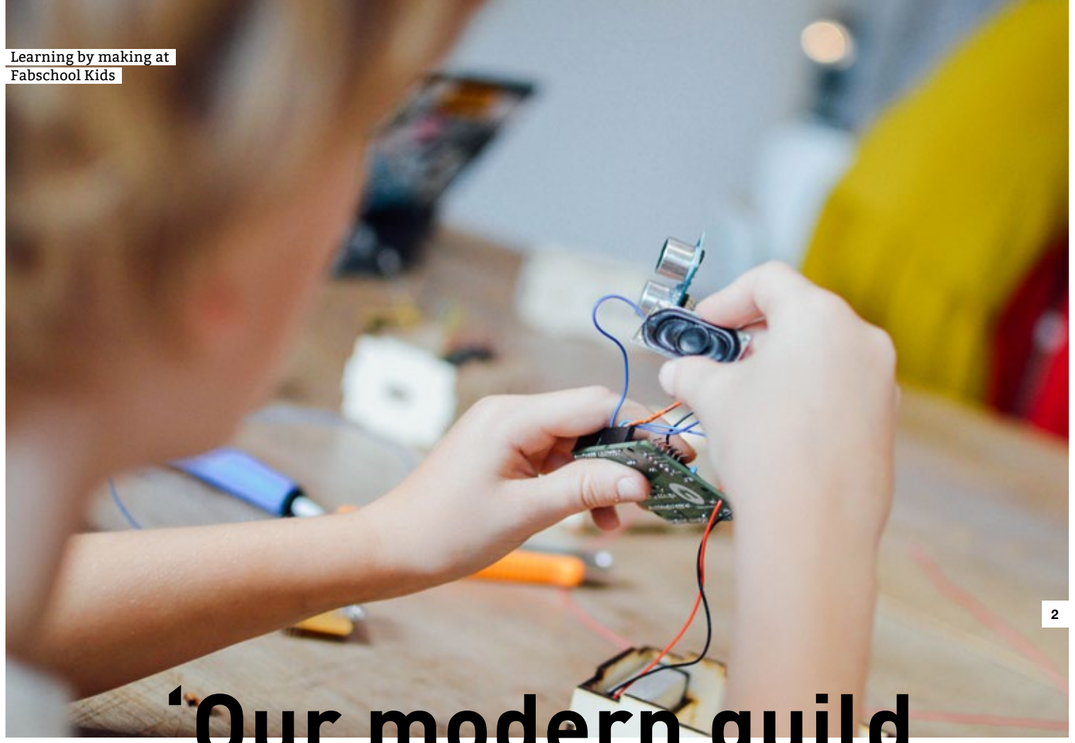
We Need to Democratize Knowledge.

Marleen Stikker

By Linda Peeters

Far too often, technology is still surrounded by an aura of mystery, according to Marleen Stikker. Waag Society wants to demystify technological knowledge. ‘Many people are convinced that they do not understand technology, and that they have no choice in the matter. But this is not true.We are a third place for technology, art and design. With us, you can learn, share, experiment and gain new insights. And everyone is welcome; inclusiveness is a prerequisite for the democratization of knowledge.’

Professionals, scientists, artists, designers... all of us are classified into categories, Stikker argues. The point is that because of this categorization everybody sticks to his or her own field. While the reality is that when we work together, from all those different disciplines, we come up with the best solutions. ‘I see this every day, the vibrant energy when you bring artists and scientists together. We offer a learning environment with a constant overlap between disciplines. Anyone can work with us to find solutions, regardless of their discipline. At Waag Society, we think it is important for people to learn to speak the same language again.’



Learning by making at Fabschool Kids

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‘Our modern guild is open to everyone, we try to put an end to exclusion.’

So what Waag Society offers is in fact a modern guild?

Stikker laughs. ‘I guess you could put it like that. We are located in the historic building the Waag. Since the seventeenth century, we’ve had a tradition of craftsmanship and free thinking here. The Theatrum Anatomicum in this building is the birthplace of medical science. Barber surgeons in training did research on dead bodies there. They tried to identify diseases and to develop knowledge together. The general public could also attend the anatomical lessons. It was quite a spectacle.’

‘In the Waag, we are now able to create life as well. We have a fully equipped Do-It-Yourself Bio Lab with equipment that allows you to play with bacteria and DNA. Our modern guild, incidentally, has quite a different structure than the former guilds. The previous ones were based on exclusion. Knowledge and experience were exchanged within the guilds. The guilds looked after the interests of guild members, and protected them. A guild often had the exclusive right to exercise a certain profession. This ensured quality, but also created a monopolies. Our modern guild is open to everyone, we are trying to put an end to exclusion.’

The Waag as a public third place?

‘Yes. I think inclusivity is one of the most important prerequisites for a good public place. People from all walks of life come here. We think about how we ourselves can shape our lives and how we can create life. In the Fab Lab, we have digital fabrication machines in order to be able to make everything, from chairs to robots. In combination with the Bio Lab we can also use plants and micro-organisms in products. And in the Textile Lab we apply both techniques in fashion.

But these labs are just as much about the underlying questions. We try to find out, for example, what the dominant economic models are that stand in the way of collaboration and knowledge sharing. Our society is stuck in neo-liberalism, an economic system that is aimed at competition and that drains value from the system. We started an alternative Open Planning Bureau. Together with lawyers, economists, designers and urban planners, we think about post-capitalist models. We want to demonstrate that things can be done differently.’

This all sounds very nice, but is it not something for a small elitist group?

‘Absolutely not. We have weekly meetings here and those are frequented by all kinds of people. For many workshops and discussion evenings, entrance is free. We want to democratize knowledge. And especially demystify it. Technology has an aura of complexity. As a result, many people feel they have no place in this field of knowledge. But we believe that everyone has the right to technological knowledge. This knowledge belongs to all of us.’

‘Knowledge of technology allows people to become more autonomous. Knowledge not only allows you to understand our own times better, but also allows you to better assess whether what we do with technology is ethical. Many people think that technology is a given, and that you have little influence on it, or even that it is objective. That is not the case at all. Technologies are invented and developed by people: us. We make choices as we do so, and also in how we apply that technology.’

‘Let me give you an example. The industry is working on self-driving cars. These are black boxes on wheels. You have no idea how they work and how the car is programmed. That is why we started developing a self-driving car ourselves. An interesting question that comes up is what your responsibility is as designers. What capabilities do we give this driving machine? Which criteria, rules and morals should this driverless car abide to, once it hits the road? The fact that you have choices and because of these choices you are also responsible, is a new insight for many people.’

‘The same goes for Uber, Google, Facebook and Airbnb. They also made choices. Do we think those were the right choices? Is there enough reciprocity with these companies? We teach people to be critical and to think about things they probably used to think you could not have an opinion about. All too often, technology is presented as a fact, although you do in fact have influence on it.’

How does Waag Society exert this influence?

‘With concrete projects and results. Partly because of us, we now have the Fairphone. A smartphone that is made with respect for people and the environment. Before, the consumer had no choice; there was no fair smartphone. Now, there is a choice. More than 100,000 of these phones have already been sold, in the Netherlands and internationally ‘

‘Through co-creation, De Pinto House is now a cultural place for all.’

Does the design of your locations add to how approachable and influential you are?

‘Our locations have always been important. The Waag has a scientific and public tradition, and is a landmark in Amsterdam. And also the De Pinto House, where we have our office, is a fantastic place. This was originally a library, but at some point, the city wanted to make some budget cuts and close the location. Local residents protested this decision, and now the monument is a cultural place for everyone. The De Pinto House is completely run by volunteers. You have free access to the library, where you can read or work quietly. And then there are literature and music events, as well as programmes about the neighbourhood and the city. It is a true meeting place. I think that is wonderful.’

‘Our locations actually speak for themselves. We are very lucky to have those wonderful historical buildings. Within Waag Society, we also pay attention to interior design and experience. We have a space where we give presentations, a space with computers and machines and there is a room where you can sit quietly to ponder things or have a discussion. The restaurant downstairs at the Waag is independent from us. We practice what we preach, so we take care of our own catering upstairs. Taking responsibility for people and the environment is one of our core values. Therefore, we only want to serve sustainable food.’

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Photo by Jimena Gauna

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Photos by Jimena Gauna

‘About the impact of design: in the years to come, we will create a Fab Lab in every public library in Amsterdam. A makerspace where people learn how to work with new technologies like 3-D printing and virtual reality. People can conduct their own experiments there, and design and make things. We are now working on the first pilots. The spaces are inviting and a little rough around the edges, like a modern handicrafts classroom; you can really get to work here. With a certain decor, you can definitely attract and inspire people.’

It is important that all of us experiment with virtual reality?

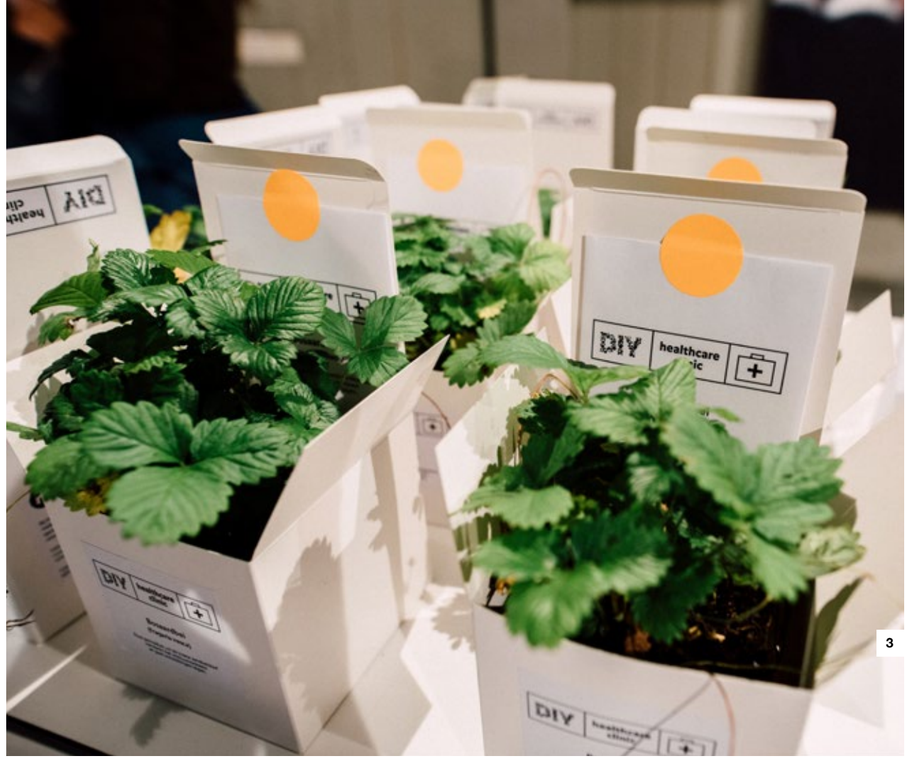
‘We want new technologies to be available and accessible to everyone. We ourselves, with our teams of artists, designers and researchers have already taken things a step further. To us, virtual reality is almost passé. We no longer look at a virtual or parallel reality, but ask ourselves how we can create reality ourselves.’

‘We are experimenting with brain technology. Is it possible, for example, to use technology in your body to manipulate your perception? Or to bend the surroundings to your own will? Brain-computer interfaces allow us to detect brain signals and translate these into smart ideas. This is how people with partial or complete loss of motor functions are still able to move. By using brain signals to control devices such as an electric wheelchair or an exoskeleton.

We wonder what else is possible. Can we control brain waves in such a way that it creates a sense of happiness, connectedness, empathy or health, or perhaps even to make us experience feelings of love? In short, is it possible for us to influence the brain to improve our quality of life?’

Can you also use this to create a different experience of third places?

‘Yes. It can even affect how we meet each other in public spaces. What we have discovered so far is only the tip of the iceberg. Brain technology will change our lives.’



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Are there already tools that you use to influence your public spaces?

‘We experiment. And while doing so, we determine together what is ethical. The ethical question is very important. We also facilitate. We do not focus on results, but offer people the opportunity to arrive at ideas and results by themselves. I think the Smart City Labs in Amsterdam are a beautiful example of the use of technology in the public domain. Here we are experimenting with ways to make the city nicer, more sustainable, more social, healthier and safer. We do this together with residents. They assess, for example, the quality of cycle paths, noise levels or the concentration of particulate matter in the air. We teach people how to measure these things themselves. We do so with the help of organizations such as the RIVM, the government institute for health policy. You can teach people how to take measurements, but they must also be able to put the data into context and interpret the results.’

Very democratic!

‘Yes. We call this peer learning. You learn from your peers, from equals. People can exchange data with each other and talk to professionals about how to interpret those data. We consider both residents and professionals to be experts, by the way. One has studied a given subject; the other knows all the cycle paths in the city by heart. Everyone brings their own expertise to the table and you respect each other’s opinions and views.’

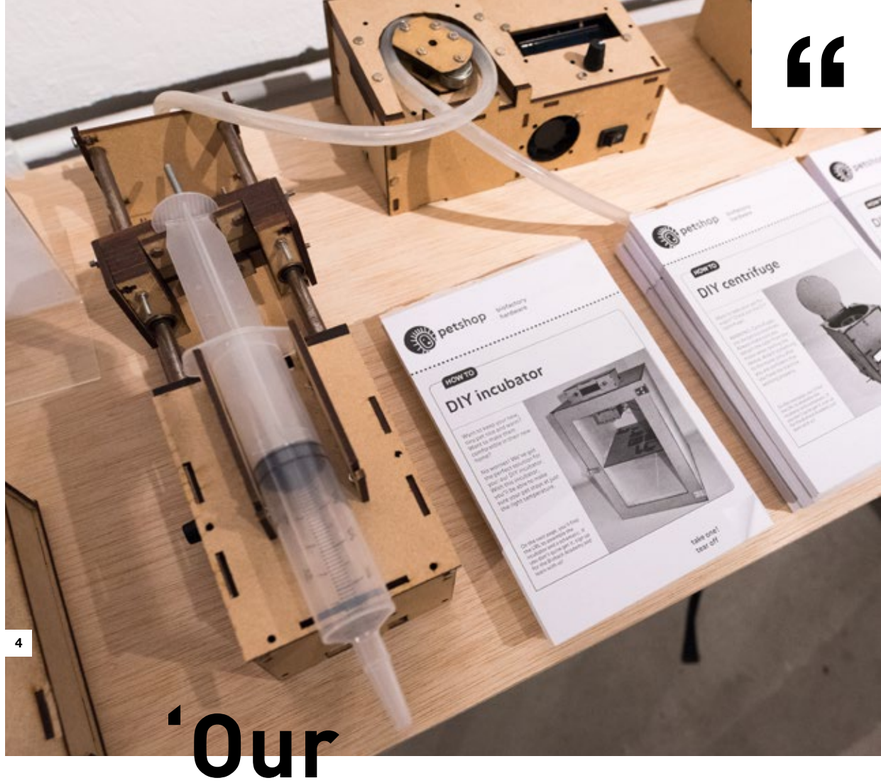
What do people do with these kinds of measurements?

‘That’s up to them. They can use them to improve their living environment and public space, by bringing information to the attention of the municipality and by expressing their wishes. Or better yet, by coming up with solutions themselves.’

Where does Waag Society get its budget?

‘Our organization has various flows of money. About 20 per cent comes from the Creative Industries Fund NL. In addition, we do projects together with partners. For these projects, we actively raise funds. This amounts to 50 per cent of our budget. And finally, companies, governments and organizations ask us to conduct studies for them.’

‘We always follow the same type of route with our projects and initiatives. First, we experiment with a small group of artists. Then we find out how we can move forward with the help of co-creation. And then we scale up, we think of ways to be meaningful for society. Our knowledge, after all, belongs to all people.’



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‘Our knowledge belongs to all people.’

About Marleen Stikker

Marleen Stikker is the director and co-founder of *Waag Society*, a research institute for creative technology and social innovation in Amsterdam. *‘If You Can’t Open It, You Don’t Own It’ (Maker’s Bill of Rights)* is also Marleen Stikker’s credo. Waag Society is actively involved in the Open Design and Creative Commons movement, and believes that society can use open technologies to address societal challenges.