

## Propositions

A Ph.D is the proof of its holder's stubbornness.

**Fabio Sebastiano,**  
mechanical engineer

Patience under stress is the foundation of success.

**Sheng Li,**  
health engineer

Allowing passing on the right improves traffic flow.

**Sander Dorenbos,**  
physics engineer

In the scientific community, quoting yourself is seen as pathetic, but quotes of others are presented as truth.

**Martijn Carel Westhoff,**  
physics engineer

The distribution of population over the earth is not only temperature dependent but also moisture dependent.

**Xiaosong Ma,**  
mechanical engineer

All models are wrong; some models are useful.

**Jeanette Hussong,**  
materials engineer

## Proposition

When PhD students regularly give lectures on their research, this enhances the progress they make towards gaining their PhD, both in terms of duration and quality.

**Marian Bosch-Rekvelde,** mechanical engineer

## Defence

"Personally, I have found that it can help enormously to explain to others what I am actually doing. Often that is the moment when the penny actually drops, where true comprehension starts. In my opinion, PhD students are 'protected' from teaching too much and too often, the pretext being that 'you should concentrate on your research, so you can finish it more quickly'. It is my assertion that that strategy is counterproductive. Teaching takes up time, of course, but the act of explaining also helps you make great strides in your research."

## Sound Bites

"I must admit I'm not looking forward to the moment when I'll have to actually use one either, but when it comes down to it I'd rather have a bag to urinate in than nothing at all. The 'bag toilet' is a cheap alternative to a conversion operation which is set to cost millions. And this is better for me as both a Dutch train user and a taxpayer as the cost of converting the trains would surely be reflected in the price of my next season ticket and in the dividend to be paid to the treasury."

*Dr Caspar Chorus, associate professor in the Transport and Logistics research group, in NRC Handelsblad.*

"Of course they're not real people, so a discussion on the theory of relativity would be tricky. For every question we have around three answers: one unpleasant answer, for challenging patients to face their fears; one pleasant answer; and a neutral one. If the avatar asks someone their name and that person replies 'none of your business', then the avatar will say: 'Right, let's talk about something else then.'"

*Dr Willem-Paul Brinkman in Trouw about using avatars in virtual therapy for conquering phobias.*

"We are getting better and better at determining the positions of the satellites themselves. This means that the next generation of satnav equipment will even be able to see which lane you're in. Relative distances – between two transmitters – can be measured to the nearest decimetre or even centimetre."

*Satellite navigation researcher Dr Christiaan Tiberius in NRC Handelsblad*

## Passion for water

This summer, in the heart of Amsterdam, next door to a climbing centre along the railway line, saw the opening of a slow food restaurant, Hannekes Boom. With thanks to three former TU Delft students. Pim Evers is one of them.



Built of salvaged wood and with an interior made of as many recycled materials as possible, the building most closely resembles a hippy colony. Pim Evers (38) and his mates built the catering establishment with their own hands. Hannekes Boom is more than just a restaurant. Dances, parties, theatre, children's activities and exhibitions are also held here, and there's also a large, waterside outdoor seating area. Hannekes Boom has been popular since the day it opened. The menu changes nearly every day, the ingredients are sustainably produced and the possibilities boundless. For the next five years, that is. The building will then have to make way for new housing.

What's the secret of their success? "As soon as we sit down together, ideas are born," Evers says. "I've always been involved in business activities with people I click with."

This wasn't yet evident when he chose to study electrical engineering in 1993, but after transferring to study technical management at The Hague University of Applied Sciences, Evers soon proved to be good at selling projects. His graduation project with the former Formula 1 sports timing company, AMB i.t. (now Mylaps), was a success. He was awarded a 9 (90%). Together with five friends, Evers then set up the New Amsterdam IT Group. "We wanted to set up our own network to watch videos at home. Within two years our workforce had grown from 6 to 86, but when the internet bubble burst, so did we."

Evers then set up an internet consultancy with two friends from Delft:

### 'My idea factory is working again'

PRO-XS Consultancy, a company that did well. In 2004, Evers and his partners had a difference of opinion: "I wanted to do highly specialised projects, they wanted to standardise. I went my own way and set up my current communication consultancy, Indysign."

Having a passion for water sports and leisure, he designs websites and house styles for nautical projects, in addition to which he set up the Amsterdam Waterstad foundation to promote water sports and leisure. Evers also manages the website: AmsterdamBootHuren.nl, which compares the prices of 70 boat rental companies. He is currently working on a new waterways map of Amsterdam.

On top of all that came the plans for Hannekes Boom in 2010. That's a tall enough order for a healthy person, but it's an even taller order for Evers. He had a nasty road accident in 2006. The nerves between his neck vertebrae are now severely damaged. He still can't work more than half a work week, but he stays positive: "I've learned to stay close to my passions: sailing, sports and inspiring people. And my idea factory is working again." That's true enough. Evers is full of plans for Hannekes Boom, which is set to become completely 'cradle to cradle'. (SB)

[www.delta.tudelft.nl/24134](http://www.delta.tudelft.nl/24134)

## The meat fraud affair

The Dutch scientific world is staggered. The renowned psychologist Diederik Stapel, who recently told the world that he and some colleagues had found that meat-eaters were more egotistical than vegetarians, admitted to having made up the research data. He said that he had been making up data for years.

Is this fraud committed by Stapel, who worked at Tilburg University, a rare and sad excrement of science? Or is it just the tip of the iceberg? Biophysicist, Professor Cees Dekker (AS), believes that scientific fraud is very rare. "If you publish false data in high level journals, you are bound to get caught," he says. "It's a stupid strategy. People who do it have a twisted mind."

In 2003 Dekker was himself involved in the unmasking of fraud, which led to the so-called Schön scandal.

A post doc in his group tried in vain to redo certain experiments done earlier by the German physicist, Jan Hendrik Schön. Schön unjustly claimed that he had developed a transistor on the molecular scale using organic material.

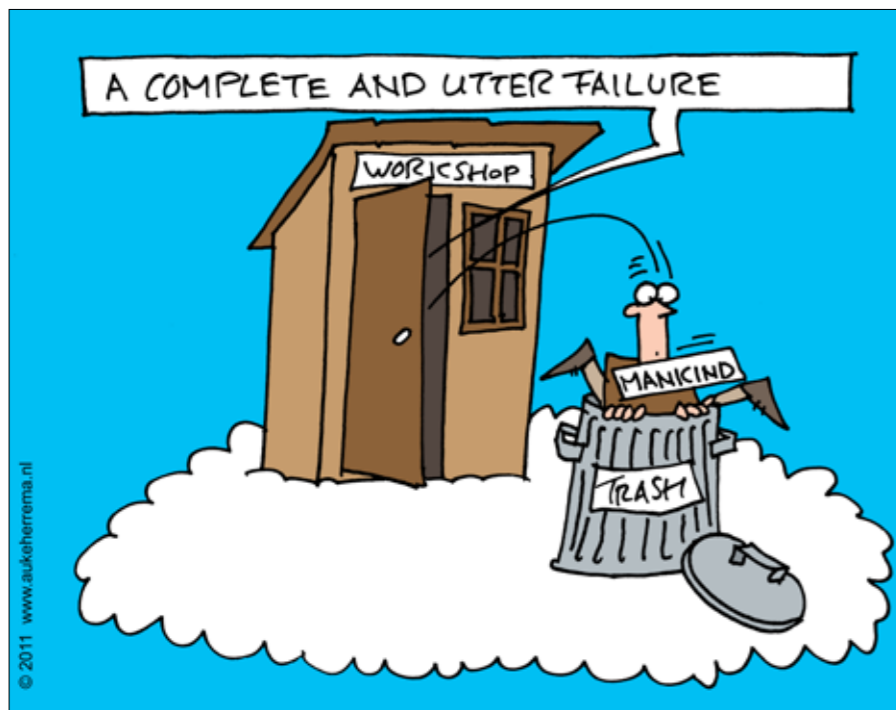
Material researcher, Professor Barend Thijssje (3mE), also believes that fraud is rare. He attributes that fact to peer review, but not just the standard type of peer review in which scientist assess papers of their peers prior to publication. He believes scientists are always looking over each other's shoulders. "The whole idea in science is that people can elaborate on each other's work", he explains. "So scientists always keep in mind that they have to perform their research in such a way that it can be repeated."

Prof. Thijssje however also believes that the pressure to publish is increasing: "You either publish or perish. Research money is being distributed via a system of competition. You only get money if you have proven to be better than the others. When I was young, research was more of a fair game."

According to hydrologist, Professor Huub Savenije (CEG), this fraud had nothing to do with publication pressure, but rather "with a craving for media attention". "The fact that Stapel got away with it for such a long time may also say something about his research field," Prof. Savenije adds. "I cannot image getting away with fraud in hydrology. This could in part have to do with the fact that in physics and earth sciences experiments are often relatively easy to repeat. In psychology, experiments can be vague and hard to repeat under the exact same circumstances."

But scientific misconduct isn't always that straightforward, as in the meat fraud affair. All scientists cope with outliers, data that do not fit the rest of the numbers, presumably because something went wrong with an experiment. The boundary between good research and falsification can then be very subtle.

Prof. Dekker however believes that is a different debate: "In our group we have daily discussions about outliers and about the way we present our results in general. We seek the way things are, not to fabricate a way things should be. There is no hint of fraud in that." (TvD)



'The argument that human beings are so complex that a higher power must have created them reveals the level of arrogance that human beings can portray.'

Janneke Blijlevens,  
engineer industrial design