

Science scepticism as a resource

By Chris Tachibana

Medicon Valley has an international reputation for public discussions on science. Professor Maja Horst says we should take advantage of it

Scientists have two jobs, says Maja Horst, an associate professor in the Department of Organization at the Copenhagen Business School. They have to conduct effective research, but they must also maintain support from society by engaging the public in discussions about science. This means explaining complicated topics like stem cell research and nanotechnology, and dealing with public scepticism and resistance. Horst says that Medicon Valley has an excellent global reputation for disseminating knowledge about research and development. We just don't know it.

-When I go to international conferences, everyone says, 'Oh, you're the ones with the Consensus Conference and the Danish Board of Technology.' They're quite well known among science communication scholars, but in Denmark, few people know about them.

Public conversations: the process itself is important

Maja Horst explains that the Danish Board of Technology (Teknologirådet) was established by the Danish Parliament in 1986, after discussions on the role of information technology in our workplace and in our lives. Its mission is to provide information to the government and the public about everything from climate change to synthetic biology. The organization has a board of nine governors

who decide the topics to address, and a council of about fifty representatives appointed by various public and private organizations, of which Horst is one, appointed by the Ministry of Science, Technology and Innovation. The daily work of setting up workshops for citizen engagement and disseminating information is done by a secretariat of employees.

- A signature feature of the Board of Technology is the Consensus Conference. They haven't had funding for them since 2005, but before that, they had one almost once a year. A Consensus Conference is a panel of citizens who meet for several weekends to deliberate on a topic. The last one was on brain science and how it will affect disease treatments and education and other issues, explains Maja Horst.

The Consensus Conference members have discussions based on background material they've been given and they come up with questions on the topic. The secretariat arranges a panel of experts to meet with the citizen group, who then write a report with a plan of action, and give the report to politicians. Horst wrote about this process in a paper on science communication. Although the findings of a Consensus Conference do not feed directly into policy making.

- The fact that we have them points to what kind of people we are. The process itself is important to the general communication of science and technology. The idea is that we deliberate about new technologies as a society, and we discuss how to use them.

Using public opposition

Biotechnology and life science industries can take advantage of our region's culture of discussion and consensus, says Horst. She says the environment provides a golden opportunity to engage the public in decision making about technology development. Input from the public can guide innovation development to create science applications that consumers will be happy to adopt. If a company encounters resistance to a technology, such as genetic engineering or stem cell research, her advice is.

- Use scepticism as a resource. We have a well-educated population and we're anti-authoritarian. People don't find it difficult to disagree with professors, but that is useful for really learning from them. At the same time, we have a culture of consensus.

As an example, she says that Novo Nordisk proactively engaged with moderate animal welfare activists who recognized the need to experiments on animals. They worked with these groups to make policies for the best treatment of animals. As a result of this and similar efforts, says Horst,

-Novo Nordisk is extremely high on the brand barometer, and it's not just a public relations thing. They really want to work on these issues. On the other hand, large, multi-national



- We have a well-educated population and we're anti-authoritarian. People don't find it difficult to disagree with professors, but that is useful for really learning from them. At the same time, we have a culture of consensus, says Professor Maja Horst

Resource websites

1. Danish Board of Technology
http://www.tekno.dk/subpage.php3?page=statisk/uk_about_us.php3&language=uk&toppic=aboutus

2. Copenhagen Business School
<http://uk.cbs.dk/>

companies have done a poor job of introducing genetic engineering to the public, and as a result, have struggled with years of resistance to genetically modified organisms. Only now are attitudes changing.

- GMO researchers say scepticism to GMO is less among the younger generation. If you speak to gymnasium students, they are mostly concerned about how to use GMO to feed the third world, or for cleaner energy. Why? Well, we can't rule out that it is because the issue has been on the public agenda, and we have debated it for 20 years, and it's only now having an effect, says Maja Horst.

Public engagement as an expectation and an opportunity

Academic scientists are increasingly being asked to engage in public discussions about science. In the United Kingdom and in the United States, granting agencies are demanding that researchers consider the societal impact of their work. The National Science Foundation in the United States now requires that all research grant proposals include activities with a 'broader impact', such as public presentations or development of educational materials. Horst thinks this is fine, as long as it doesn't become about selling science or increasing the public's expectations about scientific results.

-It should be about engaging and talking to people about doing science, and showing them that it's a systematic way of thinking about things.

Engaging with the future users of technology is actually a great opportunity to test out ideas.

-The more scepticism you meet, and the earlier you meet it, the more you can take it into account to make your technology more robust. Think of public resistance not as a roadblock, but as an opportunity to make your product better, ends Maja Horst.

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