

Schäden, die autonome, lernende Maschinen produzieren, sei mit der üblichen Produkthaftung nicht zu regeln. Sie stellte verschiedene Möglichkeiten vor, die Verantwortung für Schäden unterschiedlichen Akteuren zuzuschreiben, etwa dem Endanwender, dem Fehler in der Roboterbedienung nachgewiesen werden können, oder der Gesellschaft oder einer „elektronischen Person“ als neu zu etablierendem Rechtssubjekt. Ganz im Sinne der TA betonte Beck jedoch auch, dass es nicht mit der Frage der Haftung getan sei, sondern es einer breiteren öffentlichen Diskussion bedürfe, um die gesellschaftlichen Folgen der bewussten Übertragung von Entscheidungen auf autonome Maschinen (Stichwort Dehumanisierung) abzuschätzen. In der Diskussion wurde das Konzept der „elektronischen Person“, nicht zuletzt von Thomas Christaller hinterfragt: „Elektronische Person“ sei nicht technologieneutral genug und das mitgedachte Roboterverständnis möglicherweise zu eng, da Flugzeuge schon heute und Autos vielleicht schon bald als Roboter zu verstehen seien. In der Diskussion wurde auch hinterfragt, ob der Begriff der Autonomie angemessen sei, wenn es von der Sache her vielleicht nur um Entscheiden auf Basis eines eng umschriebenen Mandats und damit im Rahmen eines sehr engen Entscheidungsspielraums geht.

5 Zum Schluss: Ein Rätsel des Kulturvergleichs

In diesem Bericht konnten einige Beiträge nicht gewürdigt werden, besonders nicht die der japanischen Wissenschaftler, auch deshalb, weil sie schwerer für einen nicht mit Japan Vertrauten einzuschätzen sind. Der Kulturvergleich, der verschiedentlich angestellt wurde, gibt (vielleicht deshalb) ein Rätsel auf: Auf der einen Seite wurde wiederholt vorgebracht, dass es in Japan keine Debatte um den Status von Robotern gäbe (Gregor Fitzi, Hironori Matsuzaki, Tomoko Nambu, Atsuo Takanishi) weder juristisch (als „elektronische Person“) noch sozial. Es sei ganz klar, dass Roboter bloß Maschinen und Objekte seien. Dem stehen die Hinweise derselben Japankenner unvermittelt gegenüber, dass der Shintoismus, der als kultureller Hintergrund – wie bei uns das Christentum, aber eben ganz anders –, wirksam

sei, gerade die fließenden Grenzen von Menschen und beseelten, animierten Dingen, begünstige.

Wie dem auch sei, die Tagung war außerordentlich inspirierend auch für alle, die sich für TA, „responsible innovation“ oder ELSA interessieren und man darf sich schon auf die angekündigte Publikation freuen.

Anmerkung

- 1) Das Tagungsprogramm sowie die Abstracts zu den Vorträgen und Postern finden sich unter: <http://www.uni-oldenburg.de/sozialwissenschaften/ast/forschungsprojekte/robo-com/veranstaltungen/going-beyond-the-laboratory/> (download 28.3.14)

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“Disruptive Emergencies”

Report from an International Evidence-Based Policy Fellowship

Tokyo, Japan, October 3–4, 2013

by Julia Hahn, ITAS, Naomi Boughen, Commonwealth Science and Industrial Research Organisation (CSIRO), Australia, and Motoko Kakubayashi, Science Media Centre of Japan (SMCJ)

“Disruptive Emergencies” – a title that sounds urgent and uncertain – are occurrences that confuse our normal reactions and systems and that require immediate responses. What can science and its “evidence” offer in these situations? What and how many options should it offer? And what roles can researchers and policy makers play in these emergencies?

The first Fellowship for Evidence-Based Policy was organized by the Dutch Rathenau Institute, the Institute of Technology Assessment and Systems Analysis of the Karlsruhe Institute of Technology (KIT) and the Graduate School of Public Policy of the University of Tokyo. Made up of a diverse group of about 35 participants ranging from “spin doctors” and science journalists to social scientists, the workshop offered an intimate atmosphere to discuss the cruxes of evidence-based policy in everyday work with the public, politicians and experts.

1 Communicating Risk in Emergencies

The contribution by Tatsujiro Suzuki, vice chairman of the Japan Atomic Energy Commission (JAEC), with the moderate sounding title “Lessons from Fukushima” proved to be a novel and surprisingly open presentation in its clarity about the societal and scientific outcomes in the aftermath of the Fukushima catastrophe. Seemingly, the most important conclusion is: think the unthinkable. The extreme differences in perception and actions after Fukushima were presented by Suzuki shown by citing Prime Minister Abe’s quote “everything is under control” on the one hand and, on the other, by referring to studies documenting the loss of public trust in government institutions and pointing to biased experts, uncertainty of evidence, communication difficulties, and how differently evidence is interpreted by the public, the media and policy makers.

The Fukushima case as a specific, yet complex subject was particularly pertinent to the Science Media Centre of Japan (SMCJ), which shared experiences and lessons learnt with other practitioners of the Fellowship. Established in 2010 as an independent organization, the SMCJ encourages healthy debates in society by providing journalists, and ultimately the general public, with a diverse range of scientific opinions on controversial scientific issues. For several weeks following 11 March 2011, when the massive earthquake struck off the east coast of Japan and the Fukushima accident occurred, the SMCJ provided the media with information from local and international scientists about the situation. This included both pro-nuclear and anti-nuclear scientists’ views on the Fukushima Dai-ichi Nuclear Power Plant accident and resulted in more than 6,000 news articles around the world quoting scientists provided by the SMCJ and other science media centers in the United Kingdom, Australia, New Zealand, and Canada.

The SMCJ believes the Fukushima Dai-ichi Nuclear Power Plant disaster revealed a number of issues that scientists, journalists, and other science communicators should look into further in order to improve communication about risk in the future. There is no denying that both scientists and journalists face difficult situations during a disruptive emergency – and in this particular case

both groups were expected to provide expertise regarding a unique accident no one had ever experienced before – but with hindsight, the SMCJ identified several areas where scientists and journalists failed to represent diverse views. First, Japanese scientists specializing in nuclear power plants avoided talking about the worst case scenario. In respect to this, non-experts and scientists who did not specialize in nuclear power but had a general scientific knowledge were able to provide more useful analyses of the situation and its potential risks. Second, a number of Japanese scientists focused on certain or agreed answers. Some scientific associations produced group statements, while others were instructed not to talk to the media by their governing bodies. SMCJ did however find it promising to see the number of scientists who communicated through social media sites, particularly Twitter, to interact with the public and provide their views on Fukushima. Indeed, SMCJ found that when scientists and the public interacted with each other, other scientists and journalists watching their conversations could identify issues on which the public sought information. In this sense, SMCJ suggested future media could benefit greatly by incorporating this bottom-up approach into their agenda, particularly in situations involving risk. The Fukushima experience also showed that organizations such as the SMCJ can function as “translators” and can therefore work towards offering scientific assessments from “honest brokers” regarding difficult and uncertain situations.

2 Scientists as Honest Brokers?

Corresponding to the lessons of Fukushima, a presentation by Roger Pielke Jr. from the Center for Science and Technology Policy Research at the University of Colorado emphasized that it is up to the scientists as “honest brokers” to provide a variety of options based on evidence findings in order to characterize options. It remains in the realm of policy makers and the public to make the actual decisions, empowered by the experts. How to institutionalize “best practices” and to ensure pluralism with the help of “honest broker committees”, which include experts and citizens, was an on-going part of the discussions. The ideas presented about the role of scientists as “honest brokers” was a concept that resonat-

ed well with the representative from Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) also participating in the Fellowship.

CSIRO is the national science agency and one of the largest and most diverse research agencies in the world. CSIRO contributes to policy development by providing independent scientific and technical advice as required, assisting Government to decide how to best meet the challenges Australia faces. Central to the organization's strategic plan is being regarded as a "trusted advisor". Over the years, CSIRO has contributed scientific input into a range of disruptive emergencies, including, but not limited to, bushfires, (i.e. from weather warnings to firefighter training and predicting fire behavior), extreme weather events (i.e. cyclone observations, drought and flood modeling and recovery), and marine mining accidents (i.e. monitoring the extent of oil spill in the Gulf of Mexico). While the CSIRO representative in attendance was not personally involved with these or any disruptive emergencies, the experiences shared at the Fellowship were still relevant, highlighting that there are some challenges in evidence-based policy which are universal, despite the context or the domain. Trust certainly seems to be one of these universal elements.

CSIRO also undertakes research in areas where science and technologies are new and emerging, where scientific uncertainty exists and where issues are often socially contested, and this is where the representative at the Fellowship had most familiarity, and was able to share experiences from. For the past nine years, the Science into Society Group at CSIRO has been exploring Australian society's acceptance of energy technologies. In this research, trust in the information source has certainly shown to be a key element for engaging members of society. Providing information on a variety of options as in the role of an "honest broker" is thought to be particularly pertinent to garnering this trust.

3 Conclusions

Throughout the Fellowship's remaining presentations and discussions, presented in smaller

group formats such as master classes and "speed dating", issues regarding how to practically deal with difficulties of uncertainty of evidence, complexity and framing were pervasive. Also discussed was the observation that demands for more and sounder scientific evidence often arise when concrete policy decisions would be more necessary, such as with the issue of climate change, which was commonly used as an example familiar to many attendees at the Fellowship.

Exchanging the experiences gained in these situations, in formats such as the fellowship, can help address crucial questions and strengthen the knowledge required to deal with disruptive challenges. In the end, the fellowship didn't offer solutions to these predicaments (if these are even possible), but rather practical courses of action in everyday interactions between scientists, policy makers and the public. The organizers are currently planning further fellowships throughout the world which aim at bringing together experts from different fields and disciplines and are recommended to anyone working in positions crucial to connecting science and policy, particularly those dealing with disruptive emergencies.

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Will the World Energy System Turn Sustainable?

Report from the Conference "Energy Systems in Transition: Inter- and Transdisciplinary Contributions"

Karlsruhe, Germany, October 9–11, 2013

by Arnd Weber, ITAS

Several countries have implemented regulations to encourage the use of renewable energy generation, with Germany being the most ambitious. What progress are these transitions making? Will they lead to a reduction in the use of fossil fuels? This is the sort of question that has been addressed at a conference which took place in Karlsruhe last year. It was supported by Germany's largest research organisation, the "Helmholtz Association", more precisely by its project "Alliance ENERGY-TRANS".