VDI Professorship of Futures Studies
RWTH AACHEN UNIVERSITY

International Workshop

Framing Futures Studies: Science, Technology and Global Challenges

RWTH Aachen University, 19-21 July 2011

In 2010, the Association of German Engineers (VDI) established a Professorship of Futures Studies at the Institute of Political Science of RWTH Aachen University. A key objective of this professorship is to advance the field of futures studies, especially with respect to global challenges and the role of science and technology in shaping future society.

Since futures studies is an emergent cross-disciplinary field of research still in need of more reflexive epistemic foundations, we would like to discuss which important contributions exemplary social science and humanities disciplines or cross-disciplinary fields such as science and technology studies can make. While there is a considerable demand for future-related knowledge by actors from various institutional contexts—e.g., to better deal with uncertainties, risks, and ambiguities—we feel that careful consideration of how to appropriately engage with such demand as academic researchers is needed. In addition to a broad range of analytical, conceptual, and empirical issues, the workshop will touch upon themes that concern present or future challenges as diverse as sustainability, climate change, democracy and economic competitiveness in fields such as energy research, life sciences, nanotechnology, geoengineering, etc.

Format

The workshop will bring together an international group of distinguished scholars from diverse academic backgrounds. In order to foster the exploratory character of the workshop, a priority was given to reserve plenty of time for in-depth discussion. In general, each session will be introduced by three rather short presentations (10 to 15 minutes). Each speaker has been asked to prepare a few slides (approx. 3) which summarize what he or she considers (a) key insights and experiences concerning a particular topic, (b) significant challenges to advancing futures studies, and (c) promising approaches for doing so. Each session will be chaired by a moderator who has been invited to take an active role as regards both leading the discussion and providing contributions of his or her own.

Tentative description of sessions

1. Methodology and Epistemology of Studying the Future

As the future relates to a reality that is not here yet, how can it be studied—systematically and scientifically? What are the instances in the present that allow for methodologically exploring future matters? What role does/should plausibility (or implausibility) play when thinking about the future? How does the study of the future relate to the analysis of the contemporary, as well as of the past?

2. Role of Experts in Assessing and Creating Futures

Who are the experts that are called upon to provide knowledge about challenges and uncertainties of the future? What are the foundations of expertise that may justify assumptions about the superiority of expert knowledge—e.g., as regards its capacity to effectively anticipate

important aspects of the future, to appropriately prepare for future uncertainties, or to help shape and create the world of the future, which may be ambiguous and contested? How might we assess the various requests for advice directed at experts, and what might be the most appropriate responses to such demand?

3. Emerging Technologies and Imaginaries of the Future

As new and emerging technologies—especially those that are assumed to contribute to radical innovations—are likely to be associated with major uncertainties, what are the tools (e.g., those provided by technology assessment or technology foresight) that may best help to foresee the trajectories of technology developments, or shape their various stages and eventually their societal outcomes? Since powerful emerging technologies are often accompanied by opposing projections of hype and fear, how can we approach imaginaries of future science and technology in society such that we can better understand the nature of the controversies, the materiality of imaginaries, or the configuration of future sociotechnical realities?

4. Sustainable Transformation of Infrastructures and Institutions

Since infrastructures have become incorporated into everyday life, providing basic functions of society, how should we conceive of the relationships between stability and transitions to sustainability? What are the tools that may help us better understand the interdependencies between different infrastructures, as well as more effectively approach their future-oriented transformation? Which institutions are best equipped for anticipating, planning, and creating renewed infrastructures?

5. Foresight in Institutions of Democratic Societies

As foresight methods have increasingly entered the domains of politics and the economy, have they changed the ways in which politics and business are administered, and how the future is conceived of and planned for? How does foresight relate to other methods of accounting for the future—and what are the criteria of success? Has foresight become part of new modes of governance, for example in the European Union? In consequence, have foresight specialists conquered new expert positions? Are there particular democratic forms of foresight?

6. Training and Teaching in Cross-disciplinary Science and Technology Studies

What are the main challenges to interdisciplinary teaching, especially teaching that crosses the boundaries of the major academic cultures of the sciences, engineering, medicine, the humanities, and the social sciences? What are the positive or negative experiences that you have encountered at universities in different countries? What are innovative plans for the future? How can we best provide a balance between training students for a research career and training them for a professional career?

7. Professional Engagement with Government, Industry and Society

As academics come to provide expert advice in institutional contexts of governmental politics, industry or civil society, what kinds of experiences have they been having? How do they, as supposedly independent experts, mediate between their expert knowledge and their own normative standpoints, as well as diverging societal interests and demands? What are the criteria for good professional engagement of academics in institutional contexts other than universities

and research organizations? How should academic experts provide knowledge about a future that is more or less uncertain, ambiguous, and unknown?

8. The Future of Futures Studies

Against the background of the workshop deliberations, what have we learned? What conclusions can we draw for further developing agendas in research, teaching, and professional engagement? What next steps would we like to take? What should futures studies look like in the future—and what not?

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Program

Tuesday, 19 July 2011

Mies-van-der-Rohe-Str. 10, BLB-Gebäude, Seminarraum B-EG-1.03

13:30 **Welcome and Introductions**
Sascha Herman, Director of VDI-Technology Center
Prof. Daniel Barben, RWTH Aachen University

14:00 **1. Methodology and Epistemology of Studying the Future**
Chair: Prof. Daniel Barben
Prof. Barbara Adam, Cardiff University
Prof. Ulrike Felt, University of Vienna
Prof. Andrew Stirling, University of Sussex

15:45 Coffee break

16:15 **2. Role of Experts in Assessing and Creating Futures**
Chair: tbd
Prof. Rob Hagendijk, University of Amsterdam
tbd
Prof. Arie Rip, University of Twente

18:00 Reception for all participants

Wednesday, 20 July 2011

SuperC, Templergraben 57, Ford-Saal

9:00 **Welcome**
Prof. Ernst Schmachtenberg, Rector of RWTH Aachen University
Volker Wanduch, Deputy Director VDI

9:15 **3. Emerging Technologies and Imaginaries of the Future**
Chair: tbd
Prof. Arie Rip, University of Twente
Prof. Pierre-Benoit Joly, INRA & IFRIS
Dr. Petra Schaper-Rinkel, Austrian Research Centre

11:00 Coffee break

11:30 **4. Sustainable Transformation of Infrastructures and Institutions**
Chair: tbd
Prof. Andrew Stirling, University of Sussex
Prof. Harald Rohracher, University of Klagenfurt
Prof. Clark Miller, Arizona State University

13:15 Lunch break

15:00 **5. Foresight in Institutions of Democracy**
Chair: tbd
Prof. Stefan Kuhlmann, University of Twente
Dr. Dr. René von Schomberg, DG Research, European Commission
Dr. Petra Schaper-Rinkel, Austrian Research Centre *tbc*

16:45 Coffee break

17:15 **6. Training and Teaching in Cross-disciplinary S&T Studies**
Chair: Prof. Wolfgang Bleck
Prof. Clark Miller, Arizona State University
Prof. Wiebe Bijker, Maastricht University
Prof. Pierre-Benoit Joly, INRA & IFRIS

19:45 Dinner for speakers

Thursday, 21 July 2011

SuperC, Templergraben 57, Ford-Saal

9:00 **7. Professional Engagement with Politics, Industry and Society**
Chair: tbd

Prof. Alfons Bora, University of Bielefeld, Member of the German National Ethics Council
Dr. Tiago Santos Pereira (tbc), University of Coimbra/Dr. Rob Hagendijk, University of Amsterdam
Prof. Stefan Kuhlmann, University of Twente *tbc*

10:45 Coffee break

11:15 **8. The Future of Futures Studies**
Chair: tbd
Prof. Barbara Adam, Cardiff University
Prof. Wiebe Bijker, Maastricht University
Prof. Ulrike Felt, University of Vienna

13:00 End of Workshop

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List of contributors

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