Introduction: The making of visions – Visioneering socio-technical innovations

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Institute of Technology Assessment and Systems Analysis (ITAS)

Overview

- Introduction
- Significance of visions for innovation processes
- Visions as socio-epistemic practices – understanding the "making"
- Patrick McCray on visioneering
- Visioneers and their role for technological development
- Collective aspects of visioneering
- Central questions of the session

Introduction

- Project: „Visions as socio-epistemic practices" Understanding visions as constitutive part of innovation practices and processes
- Interdisciplinary: sociology, philosophy and history of ideas
- Project leaders: Knud Böhle, Andreas Lösch
- Further members: Inge Boehm, Arianna Ferrari, Christopher Coenen, Reinhard Heil, Christoph Schneider, Martin Sand, Silvia Woll
- Two associated PhD-projects:
- „Concrete utopias of an open technology. The practices and futures of open design"
- "Futures, visions and responsibility – The ethics of innovation"

http://www.itas.kit.edu/english/projects_loes14_luv.php

Vision assessment – so far

- Visions are interesting objects for assessments to detect flaws and shortcomings of future technologies – and the social processes that envision them – at a very early stage
- This is the idea behind vision assessment as an extension of traditional TA methods
- Visions are likely to influence research agendas, catch the interest of stakeholders and sponsors (Dierkes/Hoffmann 1992, van Lente 1993, Mambrey 1995, Grunwald/Grin 2000)
- Current examples: Synthetic Biology, Nanotechnology, BigData

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Visions as socio-epistemic practices – Understanding the „making"

■The project wants to extend the classic vision assessment by scrutinizing the social contexts of visions: their making, distribution and functions

■How are visions used as instruments (Coenen 2011)

■Creation of visions being considered as mandatory for successful entrepreneurship (Byers, Thomas; Dorf, Richard C.; Nelson, Andrew J. 2011)

Patrick McCray on „Visioneering"

'Visioneers engaged in promotion, popularizing, and fund-raising that created and connected different communities while helping advance their broader visions. This heterogeneous engineering created durable social networks while popular explications of their ideas generated wider public interest. […] To sum: **visioneering means developing a broad and comprehensive vision for how the future might be radically changed by technology, doing research and engineering to advance this vision, and promoting one's ideas to the public and policy makers in the hopes of generating attention and perhaps even realization.** Throughout all these diverse activities, people like Drexler and O'Neill worked to build technical and social foundations for their own particular conceptions of the technological future.'

McCray, Patrick. 2013. *The visioneers. How a group of elite scientists pursued space colonies, nanotechnologies, and a limitless future.* Princeton: Princeton University Press.

Visioneers and their role for technological development

■Visioneering is described by McCray as the (more or less) intentional shaping of technological development

■Agents that provide visions stand in the fore of this conception

■Expected consequences of their activities

  ■Creating new networks and communicating between established ones (Mambrey et. al. 1995)

  ■Creating meaning (van de Burg 2014, Grunwald 2014)

  ■Shape public perception (Cabrera 2013)

  ■Influence scientific agendas and science communication

  ■Shape societal values and norms

■Their visionary activities accompany with engineering activities presuming their specific "authority" as scientists

Collective aspects of visioneering

- Visioneering takes place in particular socio-historical contexts
    - Organisations and institutions are involved in it
    - It enacts certain ideologies
    - It links into various discourses, e.g. „the Grand Challenges"
- Many actors are involved in circulating and transforming visions: media, policy, publics, corporations, users of technologies, technology assessment (Lösch/Schneider 2015), etc.
- Products of visioneering as a collective activity can become independent of their initial contexts of creation, e.g. „Energiewende" (Energy Transition) in Germany

Central questions for the Session

- How can visioneering be conceptualized as a social practice?
- Where, when and how does visioneering occur?
- Are there cases that are analogous to the one's McCray describes?
- Is it possible to innovate without visions?
- What motivates visioneers and enables them to pursue their activities?
- What is the relationship of visioneering and certain institutions such as technosciences, futures studies, technology assessment, political parties, social movements and so on?
- How should we approach the relationship of power and visioneering? Is designing imaginations an exercise of a form of power?
- What are the normative issues visioneering practices raise?

Plan: special issue

- A special issue in **NanoEthics: Studies of New and Emerging Technologies** (Springer) with a selection of papers from „the making of visions"
- Journal has a strong record of publications dealing with visions in innovation processes
- Indexed in SCOPUS, EBSCO, Google Scholar, SciSearch, etc.

Programme changes!

THE MAKING OF VISIONS 1
- WENTLAND, Alexander, Beyond electric cars
- KOLLIARAKIS, Georgios, Visions, Blinders, and the production of Uknown Knowns
- ENGELS, Franziska and Anna Verena MÜNCH, One site – multiple visions

THE MAKING OF VISIONS 2
- GUDOWSKY, Niklas amd Mahshid SOTOUDEH, Into grey skies
- BRAND, Urte and Arnim von GLEICH, Resilience in the German Energy Transition
- TUTTON, Richard, Premediating Mars
- SIEWEKE, Jorg, Curating a park through ongoing modified maintenance instead of construction

THE MAKING OF VISIONS 3
- RODEGHER, Sandra and Cynthia SELIN, Parity and Participation
- FERRARI, Arianna and Andreas LOESCH, How smart grid meets in-vitro-meat
- PLENARY DISCUSSION

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