



INSTITUT FÜR HÖHERE STUDIEN
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Assoc. Prof. Habil.

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*Science, Technology and Social
Transformation*

Social Responsibility: Business, Research and Innovation

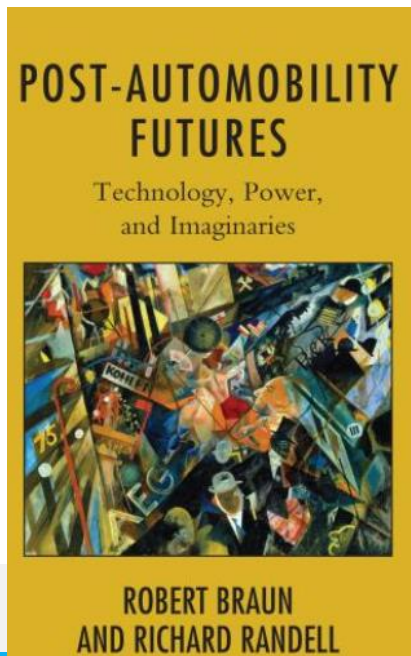
**@Masaryk University
2022/2023**

Latest books

(2024): *Automobility violence* (with Richard Randell), Bristol: Bristol University Press

(2022): *Towards Post-Automobility* (with Richard Randell), London: Rowman & Littlefield

(2019): *Corporate Stakeholder Democracy*, New York: CEU University Press



Recent papers:

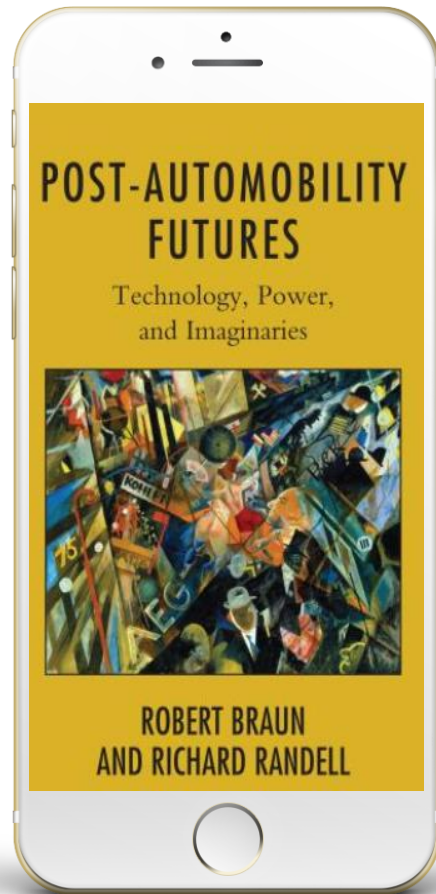
- ❖ (2022). Braun, Robert and Randell, Richard. The Political Ontology of Automobility. **Mobility Humanities.**
- ❖ (2022). Braun, Robert and Randell, Richard. Automobility studies. **The Palgrave Encyclopedia of the Possible.**
- ❖ (2022) Marsalek, I., Braun et al. The Social Lab as a method for experimental engagement in participatory research. **Journal of Responsible Innovation.**
- ❖ (2022) Braun, Robert and Richard Randell. Towards Post-Automobility: Destituted automobility. **Applied Mobilities.**
- ❖ (2021) Braun, Robert and Richard Randell. The Vermin of the Street: The politics of violence and the nomos of automobility. **Mobilities.**
- ❖ (2021) Braun, Robert and Richard Randell. "Getting Behind the Object We Love the Most" **Transfers.**
- ❖ (2020) Robert Braun and Richard Randell. "Futuramas of the present: The "driver problem" in the autonomous vehicle sociotechnical imaginary." **Humanities and Social Sciences Communications**, 7, 163.
- ❖ (2020) Novitzky, Peter, Robert Braun et al. "Improve alignment of research policy and societal values". **SCIENCE** 369, no. 6499, pp. 39-41

Philosophy of technology

Senior researcher at the Institute for Advanced Studies in Vienna; deputy head of research group: **Technoscience and Societal Transformation.**

Main research interest: the politics of knowledge and societal transformation. Current research focuses on the **transition to autonomous mobility** and **responsible research and innovation.**

What kind of animal is this?



Book

Automobility is a violent and fascist setup that is to be deactivated



Science paper

RRI is a normative ideal but lacks policy implementation



Paper in JRI

Onlineification has its perils and could be done in a responsible way



Technical/admin issues

Learning outcomes and delivery

Learning outcomes:

- Have a general awareness of what the relationship of technology and society
- Understand the concept of
 - o CSR (Corporate Social Responsibility)
 - o pCSR (Political Corporate Social Responsibility)
 - o STS (Science and Technology studies)
 - o SCOT (The social construction of technology)
 - o Sociotechnical imaginaries
 - o RRI (Responsible Research and Innovation)
- The relationship of these concepts to the philosophy of science and sociology
- Understand the concept and methodology of social phenomenology
- Have sufficient knowledge of different conceptualizations of technology, of automobility, of research and innovation
- Have practice in theoretical argumentation, understanding complex sociotechnical problems and conceptualizations.



Completion

Students will have to (a) do a presentation; (b) write one academic blog post and (c) a final course paper.

- **Presentation:** should reflect on a current theme analyzed from a critical responsibility point of view (15 mins);
- **Academic blog:** should reflect some current sociotechnical challenge, addressed via learnings acquired in the course (250-500 words);
- **Final paper:** will address a specific question within the realm of STS and analyze it according to general academic practice, based on literature review and secondary research (but not independent primary research) (2500-3000 words).

Responsible Innovation

Session 1: Society, responsibility & technology

10:00-11:30

Introduction, general concept, theme, administrative issues

11:45-13:15

Business, Responsibility & Innovation

13:45-15:15

What is CSR/pCSR?

15:15-16:45

What is STS (Society and Technology Studies)?

Session 2: The concept of automobility

10:00-11:30

What are sociotechnical systems?

11:45-13:15

What is the concept of the car?

13:45-15:15

Automobility as 'system' & 'regime' and its social consequences

15:15-16:45

Automobility as 'nomos'

Session 3: The future of technology and society

10:00-11:30

What is responsible research and innovation?

11:45-13:15

What would a post-car world look like?

13:45-15:15

The trouble of artificial intelligence

15:15-16:45

Biotech and biopolitics

Closing & summary



Session 1: Society, responsibility & technology

10:00-11:30

Introduction, general concept, background (What is science?)

11:45-13:15

Business, Responsibility & Innovation

Reading: *Jarmai K. et al (2020) Responsible Innovation in Business. In: Jarmai K. (eds) Responsible Innovation. Springer, Dordrecht.*

13:45-15:15

What is CSR/pCSR?

Reading: *Braun R.: Corporate Stakeholder Democracy (Introduction)*

15:15-17:00

What is STS (Society and Technology Studies)?

Reading: *Latour, B.: Technology is society made durable*

17:00-17:30

Today



1. Introduction

- “[Engineers] are the unacknowledged legislators of the world. By designing and constructing new structures, processes, and products, they are influencing how we live as much as any laws enacted by politicians. Would we ever think it appropriate for legislators to pass laws that could transform our lives without critically reflecting on and assessing those laws? Yet neither engineers nor politicians deliberate seriously on the role of engineering in transforming our world. Instead, they limit themselves to celebratory clichés about economic benefit, national defense, and innovation.”

Carl Mitcham: The True Grand Challenge for Engineering: Self-Knowledge

- <https://issues.org/perspectives-the-true-grand-challenge-for-engineering-self-knowledge/>



Engineers as legislators

Go to **www.menti.com** and use the code **4408 2287**

The 17th-century "Quest for Certainty"

- a timely response to a specific historical challenge—the political, social, and theological chaos embodied in the Thirty Years' War;
- Cartesian program for philosophy that swept aside the "reasonable" uncertainties and hesitations of 16th-century skeptics in favor of new, mathematical kinds of "rational" certainty and proof;
- Build a secure body of human knowledge using "rationally validated" methods.
- Framing basic theories around ideas whose merits were clear, distinct and certain and using only demonstrable arguments, having the necessity of geometrical proofs.



**The (his)story of
responsibility**



Thirty Years' war 1618-1648



Religious
conflicts



Disorder &
superstition



When “is” science?

Kjetil Rommetveit, Roger Strand, Ragnar Fjelland & Silvio Funtowicz (2013). „What can history teach us about the prospects of a European Research Area?” Ispra: JRC



2. Introduction

Business, Responsibility & Innovation

Go to www.menti.com and use the code **6408 0328**



Please describe what technology offers?





What is responsibility?

- Social responsibility means that entities, in addition to maximizing shareholder value, should act in a manner that benefits society.
- Socially responsible entities should adopt policies that promote the well-being of society and the environment while lessening negative impacts on them.
- Activities that are more inclusive, attitude to work more reflective and suggest processes that are more responsive to societal needs and ethical concerns.

Social Responsibility

Key words:

- ✓ Giving back
- ✓ Strategic goals
- ✓ Cradle to cradle
- ✓ Management of impacts

Who/what is responsible?

- Business
- Managers
- Employees
- Government
-

- The concept of business responsibility has evolved from the philanthropic approach of “giving back”, to a more strategic approach to business’ responsibility towards society being addressed in management literature.
- Since the early 2000s scholars have started to connect strategic goals with roles and responsibilities towards society
- Responsibility was no longer seen as an activity outside a core operation and core competencies, but rather as responsiveness to societal needs through creating products and services, which became a potential avenue for business growth.
- Recent years have seen a strong societal push to acknowledge that businesses’ value chains, from sourcing of raw materials to production, sales and product end-of-life, cause impacts on people and the environment for which they are responsible.
- Responsibility towards society now means responsible management of business operations, as well as a responsibility for the impacts of its products and services on people and the environment. Entities globally are being expected to take responsibility for doing no harm to people or the environment, whereas the most advanced ones are looking into strategies that drive the business through responsiveness to societal needs.

Innovation & Responsibility

Key words:

- ✓ Giving back
- ✓ Strategic goals
- ✓ Cradle to cradle
- ✓ Management of impacts

How is (one) responsible?

- Do no harm
- Anticipate impacts
- Do good business
- Bring better solutions
-

- Innovation is generally conceived as the basis for a competitive economy: to develop new market segments, improve the quality of their products or reduce the costs of production.
- A constant race for novelty and improvement only those that constantly reinvent themselves and their products can win. An innovation's success is, however, measured in terms of its uptake on the market and its generation of economic profit for the owner of the innovation. Societal benefit may arise as positive externalities of innovation but are not per-se decisive for action.
- Innovation management in companies is mostly concerned with creating fruitful environments for new ideas and deciding which of these ideas will be pursued further and which are to be discarded.

One quick example of responsibility in innovation

- Think of an example of an innovation that took responsibility into consideration.
- (5 mins)



A stack of four books is positioned on the right side of the frame, resting on a light-colored wooden surface. The books are slightly out of focus, with the top book having a white cover and the others having darker covers. In the background, a bright, circular light source creates a soft, warm glow that fades into the background. The overall scene is clean and professional, suggesting a theme of education or research.

2. Introduction

What is CSR/pCSR



What is CSR/pCSR?

- **CSR:** corporate legitimacy based on conformity with (local) societal rules.
 - Global playing field -- no broadly accepted normative standards, neither legal, nor moral.
- **pCSR:** a turn towards moral legitimacy from an economic, utility driven view to a political, communication-driven concept of organizational responsibility.
- **pCSR+:** A communicative approach based on stakeholder theory and political legitimacy to moral conflicts: exchange of value-based information between/in a corporation and its societal environment.
- Companies are social institutions embedded in a stakeholder web.
- Redefining pCSR: corporations engaging in public deliberations, collective decision-making and joint activities with stakeholders in order to anticipate, respect and be responsive to values of stakeholders when providing public goods or restricting public bads.

Corporations have an **economic orientation**; management is attending to stakeholder risks and claims.

Marketing: focuses on the effective facilitation of processes of (product) exchange.

Stakeholders express needs and wants and assumed corporate utility informs managerial processes.

CSR: focuses on effective social processes that balance said exchange with social value creation based on stakeholders' social wants and needs.

Stakeholders are invited to public deliberations, collective decision-making and joint activities in order to balance economic utility with social value-creation.

pCSR+: engages in social value creation to anticipate, respect and be responsive to values of stakeholders when providing public goods or restricting public bads in managing exchange of products.

Stakeholders may force firms to engage in public deliberations on social values and stakeholder risks and claims.





Ethical acceptability, sustainability and societal desirability



Discourses of responsibility (STS)

- ❖ Responsibility: "a transparent, interactive process by which societal actors and businesses become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the exchange process and its marketable products (in order to allow a proper embedding of scientific and technological advances in our society)."
 - *Anticipation* – to ask & discuss with stakeholders 'what if' early enough;
 - *Reflexivity* – stakeholders holding a mirror up to the corporates' own activities, commitments and assumptions, being aware of the limits of knowledge;
 - *Inclusion* -- framing assumptions of the participation processes themselves together with stakeholders;
 - *Responsiveness* -- a capacity to change shape or direction in response to stakeholder and public values and changing circumstances.



**Engage, anticipate,
respect**



Stakeholder democracy

- ❖ Corporate social responsibility is essentially political corporate responsibility: corporations, realizing the democratic role they must play reinventing democracy in a transnational globalized world.
 - Engage in public deliberations, collective decisions and joint activities with stakeholders in order to
 - anticipate, respect and be responsive to values and interests of stakeholders;
 - integrate their stakes and claims into corporate operations and processes; and
 - take on the provision of public goods or the restriction of public bads in cases where public authorities or other societal actors are unable or unwilling to fulfill this role

Political CSR is the inclusion of stakeholder values and interests in business operation, the management of inevitable conflicts stemming from stakeholder value differences and the dissolution of institutional hierarchies within the context of power.



3. Introduction

*What is Science
Technology and Society
(STS) studies?*

STS

“Science, technology and innovation shape life in modern societies in countless ways. Some of these are perceived as positive, others are deeply controversial. In turn, policy, corporations, the media and other societal actors influence how knowledge and technologies are produced. Science and technology studies analyzes these interactions and aims to foster critical and reflexive debates on the relations of science, technology and society.”

University of Vienna STS

“The Anthropocene,” as the scientists proposed to call it, “could be said to have started in the latter part of the eighteenth century, when analyses of air trapped in polar ice showed the beginning of growing global concentrations of carbon dioxide and methane”. Even before the proposal was accepted by an international body of stratigraphers, the suggestion of a human-dominated geological epoch provoked spirited responses across the social sciences and humanities. In a flurry of conferences and essays over the last several years, anthropologists, geographers, historians, and others have debated the merits of placing humans alongside asteroids and glaciers as agents of planetary geological change.

<http://stsnext20.org/vignettes/>



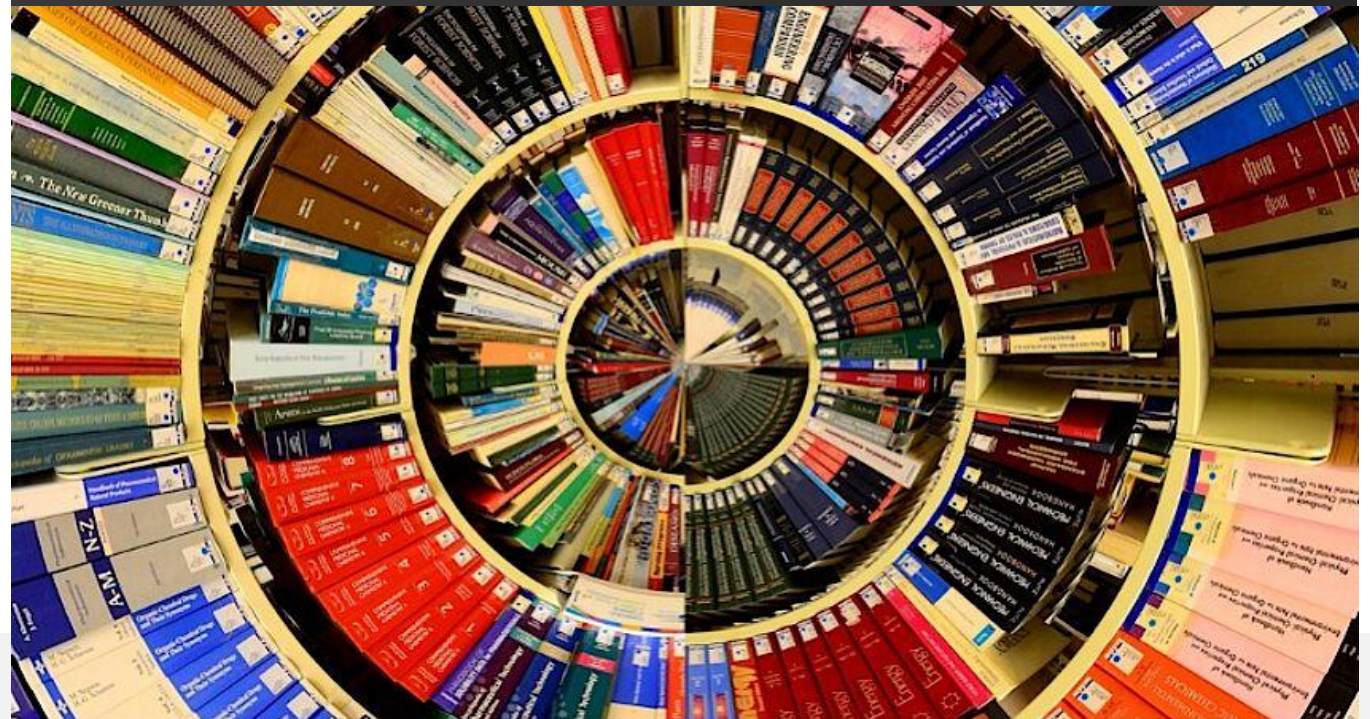
STS

Deconstructs the processes and terminologies of science in order to help understand how science works, both internally and within society at large.

A large body of scholarly work has examined historical, social, technological, and political contexts shaping different modes of scientific inquiry and how scientific knowledge is shaped and circulated in particular places at particular times.

Science and Technology

- is focused on organizations, networks, and assemblages and approached human and non-human actors. STS considers how technology and society co-produce each other.



Scientific methods

..claim to represent a reality “out there” as definite and neatly organized, but the realities reflected in these modes of knowing may be in flux. Perspectivalism is the notion that an object or process being described or observed has definiteness and singularity prior to and independent of its observation or description. The strength of social studies of science is its claim to show that what we accept as science and technology could be other than it is; its great weakness is the general failure to grasp the political nature of the enterprise and to work toward change.

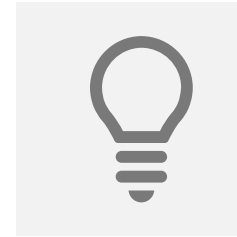
- Constructivist STS approaches also allow us to ask:
- “What sort of politics do we want to characterize our knowledge systems?”
- “How knowledge is produced in the research process, and what are practices and methods for recording or documenting particular phenomena?”
- STS aims to understand its “conditional validity” and ways in which knowledge “imposes ‘the’ public meaning on the situation and its actors”. In more critical terms, this mode of inquiry allows us to examine the “god trick” of objective authority that science can be mobilized to perform.



What is science?

Q: Can there be a different science?

A political ideology that is an ontology.



Thinking

Science as ontology



Who is thinking?

Moving from theologians and philosophers to astronomers



What is being thought?

Instead of a transcendental space a spatialized transcendence

Spatialized transcendence:

1. imagining a world "out-there" (in space);
2. that is 'one' and can be empirically verified as objective and true (e.g., happened – transcendent);
3. the mode of verification is called scientific method;
4. the process (falsifiability, incommensurability) is called science.

Society/Technology confluence

Weak programme – decentering the object that is the artefact

Determinism

- Technological determinism was taken to comprise two basic claims: (1) technology develops autonomously and (2) technology determines societal development to an important degree.

(social) Construction

- Development, stabilization, and even working of technology are socially constructed, with the emphasis on social. Key concepts are 'relevant social group,' 'interpretive flexibility,' 'closure,' and 'stabilization.' The unit of analysis was the single artifact (that is, a tool, a device, or a machine).

(social) Co-production

- Imagined forms of social life and social order that center on the development and fulfillment of innovative scientific and/or technological projects.

Society/Technology confluence

Strong programme – decentering the subject that is the human

Actor-network Theory

- The world as consisting of networks: these networks can include humans, things, ideas, concepts - all of which are referred to as "actants" in the network.
- Tracing of associations or relationships between network components (or actors) is a key activity in ANT.
- The sum of non-social phenomena can account for something that is social as a result of constellations of human and non-human actors constituting the network.

Vital materialism

- Humans are viewed as always imbricated within networks of other humans but also with nonhumans.
- Forces are generated in and through humans' relationships with nonhumans.
- Living things as well as non-living matter or things possess agency that can work with – or indeed against – the agency possessed by humans, and together generate new forms of agential capacities.


Object-oriented Ontology


- Exploring the reality, agency, and "private lives" of nonhuman (and nonliving) entities—all of which are considered "objects"—coupled with a rejection of anthropocentric ways of thinking about and acting in the world.





Questions

Thank you

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