

The Eco-Logics of Smart Electrification

Cosmologies and the Hegemonic Tendency of
Cybernetic Sociotechnical Thinking

Kassel Institute for Sustainability Kick-Off Conference

Panel: „Negotiating Sustainability in Post-Digital Life-Politics“

Kassel, 16.09.2022

Jörn Lamla & Jakob Roschka, University of Kassel



Introduction: Digitality meets Sustainability

Digitality and sustainability as different frames and camps?

- sustainability as an issue for digital solutions; welcomed by the nerds who see digitality as a universal tool to fix (or to help fixing) issues
- digitality as an example of the wrong path of modern development (exponential growing, high energy and resource dependency, e-waste, ...)

Or: hidden consensus?

- circular economy
- complex systems and networks (e.g., brain, AI, nature, ecology)
- information as a paradigm



**Cybernetic mode of
sociotechnical thinking**

→ sustainability as a good example for the current state of postdigital society

However, there are still tensions and conflicts → negotiations / life politics

Post-Digital Life Politics and Multiple Ontologies

Hypothesis:

- hegemonic tendency towards cosmological (Descola, 2014) closure: cybernetics as a universal mode of thinking/governing
- must be thoroughly studied (e.g., differences to “power-full” explanations like “capitalism”)

However, the occurrence of cybernetic vocabulary does not prove for epistemological/ ontological predominance. This remains an empirical question

- rich case studies (here: smart electrification of the energy sector, PhD-project)
- sensitizing theoretical heuristics: ontological heterogeneity and cosmological plurality make different eco-logics visible

Case Study: Smart Grids

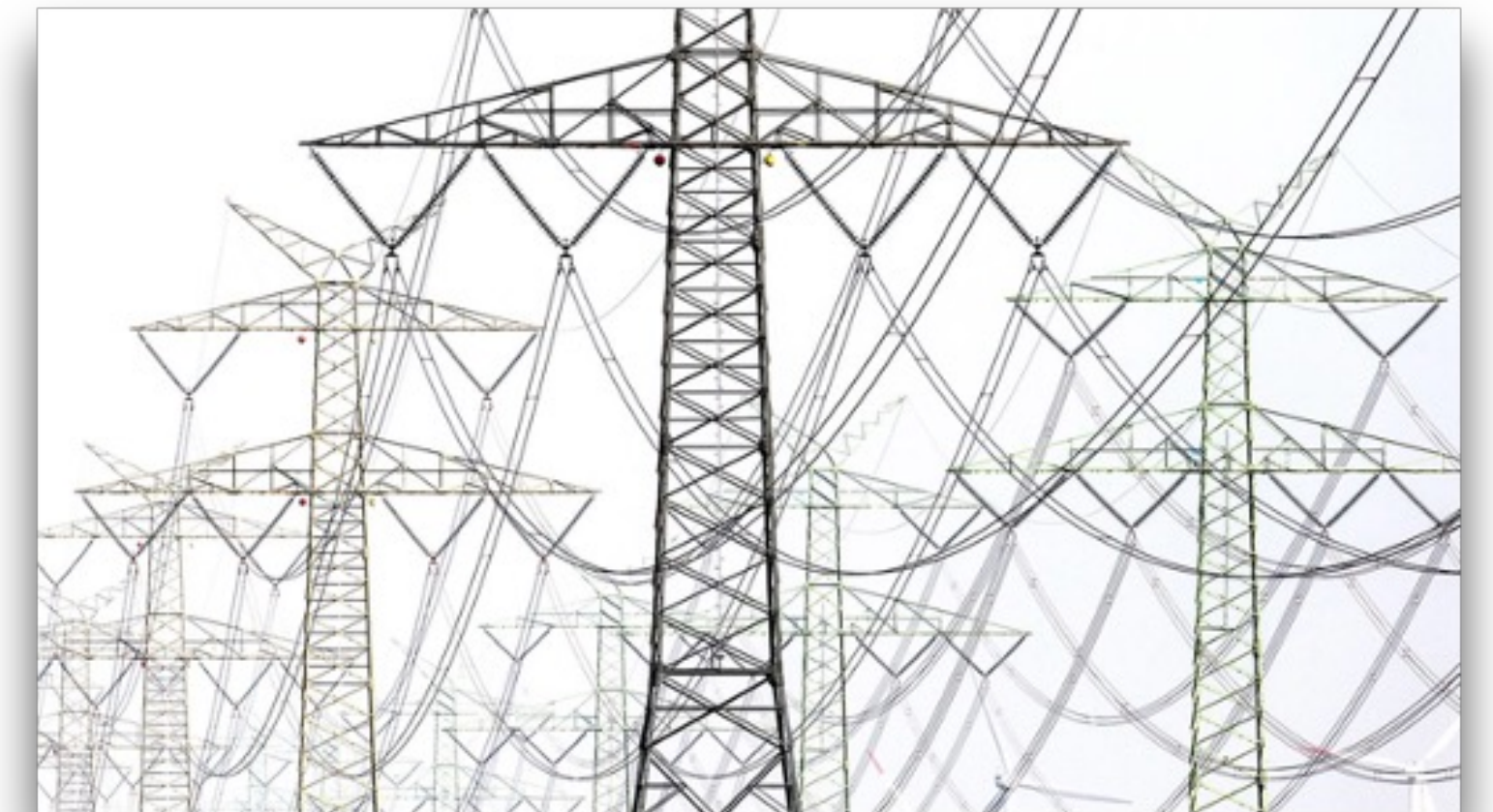
- „Energiewende“:
coupling of previous separated sectors (heating, transport, electricity)
with separate energy sources (oil, gas, coal, sun, wind, ...)
→ Electrification of Energy → increased role of electrical grids
- Network shape of electricity infrastructures = „Big Grid“
 - Thomas Edison: lightning as a service
 - Technology as an artifact → technology as a system
 - Connection logic, low participation options for citizens
- Characteristic of electricity grids: Synchronicity of production and consumption, frequency and voltage maintenance

fossil energy systems:
consumer-side volatility,
production-side flexibility



„smart“ renewable energy system:
additional production-side volatility,
consumer-side flexibility

- new consumer relations: Prosuming and Flexuming



Self-sufficiency and the question of solidarity

– overcoming the in/visibility of electricity (balcony power, prosuming), possessing the material infrastructure, reconnecting to the production

1. Solidarity aspect of being connected to the Big Grid:
 - different economic abilities to self-sustain,
 - high material investments for battery storages and energy system technics
 - flattening/balancing peak loads and production-side volatility by connecting more knots to the grid
2. Self-sufficiency could also mean refusing the connection logics and establishing new bonds of solidarity



Grey Energy, Passive Energy Use and Energy Saving

- methodological awareness for „grey energy“ (buildings, isolation) and „passive energy“ use
- „thingness“ of energy without a unifying cosmology
- intimate knowledge between the different entities that are involved into the local network
- re-transforming consumers into citizens when saving energy



Conclusion

- Plural cosmologies** make the identification of **different eco-logics possible**:
- Naturalism: subjects try to be in control of the transformation of the world (object), e.g., capitalist companies, political institutions, humans → delusion!
 - Totemism: hybrid collectives still identify with (e.g., regional, renewable) energy supply, but maintaining solidarity is difficult in the anonymous grid
 - Animism: mutual respect between heterogeneous entities (subject-object-symmetry) → cultivated only in some inferior life forms and exit strategies
 - Analogism: expanding, totalizing tendencies, driven by electricity and digital information as unifying, self-organizing concepts/entities (uprates whole over parts)
- We observe a shift from a fossil based “productivist naturalism” to a smart „digital analogism“ (Lamla 2021, 2022) guiding sustainable transformation.

Thank you for listening!

Jörn Lamla, University of Kassel

Jakob Roschka, University of Kassel

Sociological Theory Research Group

www.uni-kassel.de/go/soztheo

References

- Descola, Philippe. 2014. *Beyond Nature and Culture*. Paperback edition. Chicago London: The University of Chicago Press.
- Lamla, Jörn 2021. Die symbolischen Ordnungen des Konsums – und die Fallstricke produktivistischer Soziologie. In: Lenz, Sarah / Hasenfratz, Martina (Hg.): *Capitalism unbound. Ökonomie, Ökologie, Kultur*. Frankfurt/Main; New York: Campus, S. 283-299.
- Lamla, Jörn. 2022. 'Künstliche Intelligenz Als Hybride Lebensform. Zur Kritik Der Kybernetischen Expansion'. in *Auswirkungen der Künstlichen Intelligenz auf Demokratie & Privatheit*, edited by M. Friedewald, A. Roßnagel, J. Heesen, N. Krämer, and J. Lamla. Baden-Baden: Nomos.