

A CYBERNETIC MODEL OF DESIGN RESEARCH TOWARDS A TRANS-DOMAIN¹ OF KNOWING

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Preface to the new edition

The chapter still represents my current model of design research as a “trans-domain of knowing”, which is aiming at shaping complex social problem areas and emerges from a convergence of design and science. The concept of *research through design* is central in the argument. It combines analytical, projective and synthetic epistemologies and thus establishes a connection to the field of transdisciplinarity studies. However, in today’s increasingly fragile and unpredictable contexts, I qualify the argument and state that this model is a design artefact,² based on my own academic and personal bias, a contingent mix of descriptive and normative thinking, namely critical systems theory³ and cybernetics.⁴ Based even on wishful thinking.

Moreover, serious doubts about the epistemological validity of current design research are growing. Its alleged development into a science is at an *impasse*.⁵ A recent empirical analysis of 20 years of design debate concludes that consensus regarding basic concepts is not foreseeable.⁶ The weird suggestion of the authors of the empirically well-founded study for a way out is that distinguished experts should end the fruitless discussion and set some “rigorous” theories and definitions. What a nonsense. How can a field that claims to be scientific, seriously come up with the idea to establish its missing foundations through dogmatic setting?

The classic *Münchhausen Trilemma*⁷ depicts the inevitable choice between circular reasoning, infinite regress or dogmatic setting. That of all things the third option is suggested as a remedy appears as simple self-deception, only consolidating the presumptuous design research bubble, which claims to serve the good of mankind in a unique way. This corresponds to my long-held view that there are no foundations and no progress, but rather growing archives of theoretical perspectives, emerging from the ongoing co-evolution of design and its changing socio-cultural contexts. Substantial and sustainable practical contributions regarding answers to urgent social issues, which are always transdisciplinary, are missing.⁸

The basic paradox/the founding contradiction lies in the fact that design research is the object of its own study, i.e. that design discourse is an artefact in itself. Design research models are designs, disguised as theories. We should be more modest, be happy with small, transient contributions to the ongoing process of *muddling through*.⁹ This would be a big relief for the community with its heavy, self-imposed moral burdens of saving the world.¹⁰

A cybernetic model of design research

In practice, my (again contingent) conclusion is that irreducible complexity (the problem of control) and evolutionary uncertainty (the problem of prediction) can be handled neither scientifically nor in terms of design, but only by a new form of *research through design*, which I describe in the following as the development towards a fuzzy and fragile “trans-domain of knowing”, where design and science collaborate and at times even converge.

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Notes

- 1 The European Commission is using the term in its COST programme, see www.cost.eu/domains_actions/TDP, accessed 27 December 2012: ‘Trans-Domain (TD) COST Actions offer researchers fertile ground for future networks across many science and technology disciplines, by allowing unusually broad, interdisciplinary proposals to cover several scientific Domains’.
- 2 Redström, Johan (2017) *Making Design Theory*, Cambridge, MA: MIT Press
- 3 Jonas, Wolfgang (2018) “Systems Design Thinking: Theoretical, Methodological, and Methodical Considerations. A German Narrative”, in: Peter Jones and Kyoichi Kijima (eds), *Systemic Design*, Tokyo: Springer
- 4 Jonas, Wolfgang (2019) “Design Cybernetics: Concluding Remarks from a Semi-external Perspective”, in: Thomas Fischer and Christiane M. Herr (eds), *Design Cybernetics*, Cham: Springer
- 5 Beckett, Stephen J. (2021) “Ambiguity and Utopia in the Discourse of Design”, *she ji, The Journal of Design, Economics, and Innovation* Volume 7, Number 3, Autumn 2021
- 6 Blackler, Alethea et al. (2021) “Can We Define Design? Analyzing Twenty Years of Debate on a Large Email Discussion List”, *she ji, The Journal of Design, Economics, and Innovation* Volume 7, Number 1, Spring 2021
- 7 Albert, Hans (1968) *Traktat über kritische Vernunft*, Tübingen: Mohr Siebeck, see also https://en.wikipedia.org/wiki/Münchhausen_trilemma
- 8 Two exemplary problem fields illustrate the discipline’s impotence in the face of complex challenges: (1) Design continues to act as a catalyst for the accelerated cycle of production and consumption of material goods based on resource exploitation and global inequality. The consequences in the form of environmental degradation, climate change, migration, etc., are obvious. (2) As an equally willing executor, design is deeply involved in the profit-driven development of so-called social media. The consequences in the form of growing populism and nationalism, fuelled by fake news, hate-speech and conspiracy narratives, are becoming evident.
- 9 https://de.wikipedia.org/wiki/Charles_E._Lindblom
- 10 Jonas, Wolfgang (2021) “Designing Democracy or Muddling Through? – A Cautious Plea for Reflection and Moral Disarmament in Social/Transformative Design”, in: Michael Erlhoff and Maziar Rezaei (eds), *Design and Democracy*, Basel: Birkhäuser
- 11 Churchman uses the German word for the framework of ideas and beliefs through which an individual, group or culture interprets the world and interacts with it.