

Editorial

(Con-)Testing theories – (re-)thinking mode 2

More than 15 years ago, Michael Gibbons, Helga Nowotny and others coined the term “mode 2”, arguing that a new mode of production of scientific knowledge had emerged. In the era of mode 1, science had been able to safeguard its autonomy and almost exclusively relied on internal mechanisms of quality and relevance assessment. Mode 2, however, means that scientific knowledge has to be socially robust, counting more and more on the participation of lay-people from different parts of society. The mode 2 thesis thus reflects a fundamental transformation of the relation of science and society.

The current issue of STI-Studies contains two articles that deal with mode 2 issues, one on a theoretical basis, the other presenting findings of a comparative empirical study. Both point at some weaknesses of the mode 2 thesis, thus re-opening the debate.

In his article *“Mode 2, systems differentiation and the significance of politico-cultural variety”*, Janus Hansen argues that the mode 2 thesis is based on an unacceptable generalization and extension of trends to the socio-structural level of society, which mostly take place at the organisational level. Hansen also calls into question the implicit assumption of a universal trend toward mode 2 and a resulting convergence of modern societies as regards the science-society relation. Therefore he calls for an in-depth analysis of cross-national varieties.

Voilà! STI-Studies is very proud to present an answer to these questions in the same issue. In her paper *“Nanotechnology governance”*, Monika Kurath presents the results of an international comparison of deliberation-oriented and public engagement projects in the field of nanotechnology regulation. Her article can be regarded as an empirical test of the mode 2 thesis. She applies a technique of rating the social robustness of different participatory discourses, concluding that self-regulation performs better than deliberation. However, only a few of these new modes of governance can be regarded as – at least partially – socially robust. Thus Kurath pours a lot of water into the wine of mode 2 proponents.

The third article also contains a test of a big theory. In their article *“Technology adoption in small-scale agriculture”*, Genesis T. Yengoh, Armah Frederick Ato and Mats G. E. Svensson investigate the question, why technology adoption in sub-Saharan Africa does not work according to Rogers’ general model of the diffusion of innovations. By modifying the model and identifying additional factors and drivers, they show – via computer simulation – that a refined model can explain the decelerated process of technology adoption, thus identifying loci for political intervention.

(Con-)Testing theories via empirical analysis is one of the paramount tasks of scientific research. All authors of the three articles in the current issue contribute to this task and show the productive results of a stimulating combination of theoretical analysis and empirical studies.

Many thanks to Peter Goldberg for his language assistance.

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