

Rusnano Project Review

Self-fashioning practices of successful technological entrepreneurs and their influence on the efficiency of high tech companies: the cases of Russia, Finland, South Korea and Taiwan.

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We consider this project a fascinating opportunity to enrich our understanding of technological cultures for the purpose of assessing potential for post-technocratic futures. Building such futures needs to be based on reconsidering assumptions about the roles and status of science and technology in society. While the project report offers a description and categorisation of certain local (regional; country specific) readings and interpretations of technocratic models of innovation and socio-technical change, we have agreed between ourselves that such description also casts doubt over the assumptions that inform such readings. We were also wondering how the models (or rather ‘worlds’, in words of Boltanski and Thévenot) of commercialisation and technological entrepreneurship would compare to alternative visions of socio-technical change that have been part of conversations between Science and Technology Studies (STS) and Technology Assessment (TA), in particularly in the context of Responsible Research and Innovation (RRI) (Owen *et al.*, eds., 2013).

In a report titled “Taking European Knowledge Society Seriously” written for the European Commission (2007), the expert group identify master narratives of Science, Technology and Society that, in their view, need a thorough reconsideration. The key features of such master narratives are 1) association between science, technology and progress; 2) the language of objectivity and rationality ascribed to science and engineering; 3) the narrative of unintended consequences featuring also the dominant narrative of failure; 4) such master narrative also attribute ambiguous status to the publics as problem or solution. While the master narrative of the 20th century can be associated with powerful political processes involving the nuclear weapons race and the Cold War, other commentators observe that science and technology are also dominant political forms in themselves (Rip *et al.*, 2010).

In particular, the emergence of technocracy and the regime of the economics of technoscientific promises (*ibid.*) has lead to the current dominant assumption entrenched in policy thinking that models of society are inextricably bound up with technological development (e.g. fears that Europe will not be able to afford its social organisation if lagging behind in the innovation race). There is also a growing recognition that technocratic cultures have not been able to deliver their promise of human progress but have rather created a complex and vulnerable (Bijker, 2006) technological world which has included some and excluded others also creating divides in access to technologies. As a consequence, the civil

society is increasingly questioning science, technology, and the market as proposed solutions to societal problems.

However, thinking in terms of competition is helpful when we note that social organisation is also bound up with the capacity to sustain critical discourses of innovation, and open up its 'black boxes', in words of Bruno Latour, as it has been achieved in this project. While the deconstruction of master narratives of science and technology is increasingly gaining momentum in science and technology policy in Europe and the US, we wonder whether Russia might be lagging behind, and this project could be a way to contribute to such processes.

It will not be an exaggeration to say that we have arrived at the moment in history when we can speak of a technocratic past. We can observe that increasingly various actors (policy makers, businesses, scientists and engineers, activist groups, as well as citizens) participate in collective experimentations to develop new approaches to the governance of science and technology.

Our reading of the project report suggests three ways in which it can open up directions for deliberative processes for science and technology governance:

- 1) The project provides valuable insight into cultures of technological entrepreneurship and shows the need for a higher degree of politicisation of science and technology, or the use of externalist criteria for evaluating societal status of entrepreneurship rather than relying on participant categories.
- 2) Analysis of participants' evaluations of their failures and successes can help us to reassess criteria of "good technological entrepreneurship." In what sense are the technocratic criteria helpful in selecting projects aiming to e.g. contribute to resolving grand challenges and pressing world problems?
- 3) The project findings can serve as a policy toolkit to identify worlds of technological entrepreneurs and their characteristic features for policy makers, consultants, funding bodies and technological entrepreneurs themselves. Would these worlds be able to play a role in international conversations about governance of science and technology often operating with different criteria of assessing the role of science and technology in society, for instance, responsibility?

Overall, our meta-analysis of this project has helped to raise many further questions about tensions between publicly funded science and market-driven logics which we believe are worthwhile pursuing in the context of creating global Responsible Research and Innovation agendas.

References

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