

There are no translations available.

Publication date: May 2014

Source: Technological Forecasting and Social Change, Volume 84

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This paper explores the potential for learning from infrastructure shocks to develop strategic visions of infrastructure. The paper departs from theories of systems innovation, which understand infrastructure transitions as socio-technical re-configurations over long periods of time. The paper presents a complementary hypothesis to those theories about the possibility to catalyze systems change during or as a result of infrastructure shocks. According to this hypothesis, this change is possible because shocks enable higher order learning about infrastructure, which is learning involving a critical evaluation of existing principles and their suitability to complex situations. The hypothesis is examined empirically by studying the association between different types of infrastructure shock and different types of learning that emerge from those shocks using a meta-analysis of published work on infrastructure shocks. The analysis suggests that while there is considerable evidence of social learning from shocks, the context in which they occur will influence whether or not this is higher order learning. Further research is needed to develop feasible and practical ways to maximize the learning opportunities emerging from infrastructure shocks towards a transition to sustainable and resilient infrastructure.

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