Technology Assessment of Software-Intensive Critical Infrastructures – A Research Perspective

Carsten Orwat

Institute for Technology Assessment and Systems Analysis, Karlsruhe Institute of Technology
P.O. Box 3640
76021 Karlsruhe, Germany
orwat@kit.edu

Abstract: As envisaged by developers, industry actors or politicians, software systems will be utilized in critical infrastructures to an unprecedented level in order to realize virtualization, optimize resource efficiency or provide new functionalities. However, this can also be sources of additional (systemic) risks due to increased complexities and tight couplings, potential failures of complex governance structures, or incoherent technical and governance developments. We propose a research perspective of technology assessment that focuses on the interactions between technological developments and governance structures.