

Information infrastructure risk

Perspectives, practices & technologies

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Abstract

This dissertation investigates the nature and management of information infrastructure risks in organizations. Specifically, it examines how practitioners identify and manage threats towards their organizational aims, and suggests ways of achieving sustainable risk management, in settings characterized by the integration of information technology (IT) and organizational processes. The dissertation is motivated by the difficulties organizations encounter when attempting to leverage IT as an organizational resource and the observation that IT projects have high rates of failure despite three decades of research on and practice of risk management in Information Systems (IS). The dissertation problematizes extant research on risk in our field and challenges its ontological and epistemological assumptions. An analysis of the extant literature shows that despite this richness, it still does not account, or offer support, for situations characterized by a high degree of uncertainty and equivocality. In these kinds of situations, risks are typically emergent and cannot be identified or managed by the prescriptions found within the IS discourse. However, emergence has long been recognized as a characteristic of the organizational consequences of information technology. Paradoxically, while most IS scholars would recognize the socio-technical, or even sociomaterial, nature of IT, it has had little impact on research on risk in our field. Grounded in information infrastructure theory, this dissertation examines how practitioners identify, assess, prioritize and resolve risk in their everyday organizational practices. While risk has been used as a concept to characterize the underlying logic of information infrastructure evolution, scant attention has been paid to the particularities of risk emergence and operational risk management practices. As such, existing IS research on risk management explains *why* risk emerges but not *how*. The notion of practice has recently gained momentum in the IS field for its usefulness as an analytical lens in approaching complex, dynamic and emergent phenomena, and it is reflective of information infrastructure theory in its fundamental ontological and epistemological assumptions. All of the papers included in this dissertation build, to varying degrees, on information infrastructure theory and a practice approach. The dissertation contributes new knowledge to research on information infrastructure risk and risk management in IS by theorizing information infrastructure risk as emergent, interstitial, and rooted in practice and sociomaterial contexts

Keywords

Risk, risk management, practice research, information infrastructure theory

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