

SHADOW IT SYSTEMS: DISCERNING THE GOOD AND THE EVIL

Complete Research

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Abstract

Shadow IT is becoming increasingly important as digital work practices make it easier than ever for business units crafting their own IT solutions. Prior research on shadow IT systems has often used fixed accounts of good or evil: They have been celebrated as powerful drivers of innovation or demonized as lacking central governance. We introduce a method to IT managers and architects enabling a more nuanced understanding of shadow IT systems with respect to their architectural embeddedness. Drawing on centrality measures from network analysis, the method portrays shadow IT systems as most critical if they hold a central position in a network of applications and information flows. We use enterprise architecture data from a recycling company to demonstrate and evaluate the method in a real project context. In the example, several critical and yet disregarded shadow IT systems have been identified and measures were taken to govern them decently.

Keywords: Shadow IT systems, IS architectures, Network analysis, Centrality measures, Design science research