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Applying Design Science to IT
Management: The IT-Capability
Maturity Framework

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ABSTRACT

The IT-Capability Maturity Model [IT-CMF] is a high-level process capability maturity framework for managing the IT function within an organization. The framework identifies a number of critical IT processes, and describes an approach to designing maturity frameworks for each process. Unlike previous maturity model-based approaches, the IT-CMF is a novel approach to managing IT resources because it is based on a structured Design Science-based methodology driven by engaged scholarship and open innovation principles. In general, Design Science artifacts include constructs, models, methods, and instantiations. IT-CMF uses “method engineering” and “method construction” techniques to develop a framework that represents a more coherent and holistic solution to the problem of IT management than heretofore developed. The purpose of this paper is to explore and explain the IT-CMF as a “method meta-model” for IT management, emphasizing the novel approach to addressing the application of design processes and design artifacts by means of a very structured use of engaged scholarship and open innovation techniques to the ongoing challenge of managing organization’s IT capability.

Keywords

IT Management, Maturity Model, IT Capabilities, Design Science