

Association for Information Systems AIS Electronic Library (AISeL)

AMCIS 2010 Proceedings

Americas Conference on Information Systems
(AMCIS)

8-2010

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

Brian Donnellan

National University of Ireland, brian.donnellan@nuim.ie

Markus Helfert

Dublin City University, Markus.Helfert@computing.dcu.ie

Follow this and additional works at: <http://aisel.aisnet.org/amcis2010>

Recommended Citation

Donnellan, Brian and Helfert, Markus, "Applying Design Science to IT Management: The IT-Capability Maturity Framework" (2010). *AMCIS 2010 Proceedings*. 227.

<http://aisel.aisnet.org/amcis2010/227>

This material is brought to you by the Americas Conference on Information Systems (AMCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2010 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

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

Brian Donnellan

Business and Law

National University of Ireland, Maynooth

Maynooth, Ireland

Brian.Donnellan@nuim.ie

Markus Helfert

School of Computing

Dublin City University

Dublin, Ireland

Markus.Helfert@computing.dcu.ie

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