The Business Transformation Enterprise Architecture Framework:
Intelligent Strategic Development and Operations (iSDevOps)

Antoine Trad, IBISTM, France

(iD) https://orcid.org/0000-0002-4199-6970

ABSTRACT

This chapter's author based his cross-functional research on an authentic and proprietary mixed research method that is supported by intelligent neural networks combined with a heuristics motor, named the applied mathematical model (AMM). The proposed AMM base functions like the human empiric decision-making process that can be compared to the behaviour-driven development. The AMM is supported by many real-life cases of business and architecture transformation projects in the domain of intelligent strategic development and operations (iSDevOps) that is supported by the alignment of various standards and development strategies that biases the standard market development and operations (DevOps) procedures, which are Sisyphean tasks.

KEYWORDS

Development and Operations, Enterprise Architecture, Information Systems, Intelligent Systems

INTRODUCTION

The iSDevOps is based on real-life cases for detecting and processing an enterprise heuristic algorithm for business transformation, business engineering and enterprise architecture development procedures. This application-driven development model offers a set of possible solutions in the form of architecture, managerial and technical recommendations, coupled with a usable framework. The proposed executive recommendations are to be applied by the business environment's architects, analysts and engineers to enable solutions to knowledge-based environments. This Global Software Engineering (GSE) subsystem is a driven development model that offers a set of possible solutions in the form of architecture, method, patterns, managerial and technical recommendations, coupled with an applicable framework (Trad & Kalpić, 2018a; Trad & Kalpić, 2018b). The proposed executive and technical recommendations are to be applied by the business environment's DevOps officers, enterprise architects, analysts and engineers to enable solutions to reasoning-based development and development and maintenance of operations engineering paradigms. This chapter, can be read in an independent way, that is why some paragraphs were added to avoid the reading the whole set

of the author's articles in order to understand his framework. In the other hand it might seem that there is redundancy and another factor is that is describes a complex framework… It is nevertheless recommended to read other author's articles and book (Trad & Kalpić, 2020a).

BACKGROUND

This work's background combines Knowledge Management (KM), standard DevOps, enterprise architecture, heuristics/mathematical models, technology management, business transformation and business engineering fields. Building an iSDevOps based on a Decision-Making System (DMS) and KM is today the major strategic goal for business companies, as shown in Figure 1 (Cearley, Walker, & Burke, 2016; Thomas, 2015). The proposed iSDevOps is a generic and cross-business reasoning engine that contains basically qualitative research methods that manage sets of factors and can be used by a Business Transformation Project (BTP). The author based his research method on intelligent neural networks and behaviour-driven development, where both methods resemble to the human brain processing. This article is based on the author's framework and it is recommended to refer to his framework to understand the methodology. The iSDevOps concept is business driven and is agnostic to a specific environment, as shown in Figure 1. It is founded on a genuine research framework that in turn is based on many existing industry standards, like the Architecture Development Method (ADM) (The Open Group, 2011a).

Figure 1. Technology Trends (Cearley, Walker, & Burke, 2016)

26 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/article/the-business-transformation-enterprise-architecture-framework/275264

Related Content

Two Informational Complexity Measures in Social Networks and Agent Communities
António Jorge Filipe Fonseca (2009). *International Journal of Agent Technologies and Systems (pp. 49-57).*
www.irma-international.org/article/two-informational-complexity-measures-social/37419

A Multiagent Approach to Teaching Complex Systems Development
Simon C. Lynchand Keerthi Rajendran (2011). *Multi-Agent Systems for Education and Interactive Entertainment: Design, Use and Experience (pp. 70-87).*
www.irma-international.org/chapter/multiagent-approach-teaching-complex-systems/50395

RiskMan: A Multi-Agent System for Risk Management
Manolya Kavakli (2007). *Architectural Design of Multi-Agent Systems: Technologies and Techniques (pp. 356-376).*
www.irma-international.org/chapter/riskman-multi-agent-system-risk/5187

Adaptive Congestion Controlled Multipath Routing in VANET: A Multiagent Based Approach
Anil D. Devangaviand Rajendra Gupta (2017). *International Journal of Agent Technologies and Systems (pp. 43-68).*
www.irma-international.org/article/adaptive-congestion-controlled-multipath-routing-in-vanet/201444

Efficient Detection of Humans in Flames Using HOG as a Feature Criterion in Machine Learning
Upendra Kumar (2022). *International Journal of Distributed Artificial Intelligence (pp. 1-14).*
www.irma-international.org/article/efficient-detection-of-humans-in-flames-using-hog-as-a-feature-criterion-in-machine-learning/315276