Business and Enterprise Architecture: Processes, Approaches and Challenges

Frank Armour  
Kogod School of Business  
American University  
farmour@american.edu

Stephen Kaisler  
SHK & Associates  
skaisler1@comcast.net

Edwin Huizinga  
Independent EA consultant  
edwin.huizinga@gmail.com

Enterprise Architecting (EA) is the process of developing enterprise Information Technology architecture. An EA focuses on a holistic and integrated view of the why, where, and who uses IT systems and how and what they are used for within an organization. An enterprise architect develops the strategy and enables the decisions for designing, developing, and deploying IT systems to support the business as well as to assess, select, and integrate the technology into the organization’s infrastructure. Alignment between business and IT is one of the top issues for CIOs and IS managers.

Sessions

The first session starts out with the paper: Improving Government Enterprise Architecture Practice – Maturity Factor Analysis which presents the results of empirical research aimed at determining the key factors for raising the maturity of the Government Enterprise Architecture (GEA) practice, part of an effort to guide policy-makers of a particular government on how to develop GEA capabilities by its agencies.

The second paper, A comprehensive EA benefit realization model - An exploratory study, identifies EA success factors and EA benefits through a literature review, and integrates these findings with the DeLone & McLean IS success model to propose a theoretical model explaining the realization of EA benefits. In addition, the authors conducted semi-structured interviews with EA experts for a preliminary validation and further exploration of the model.

The notion of EA principles (EAP) has suffered from the lack of a theoretical foundation that provides a logical framework for defining them. The third paper, Mapping the Enterprise Architecture Principles in TOGAF to the Cybernetic Concepts – An Exploratory Study, explores whether the principles of cybernetics can provide a theoretical basis for interpreting EA principles derived through practice. The paper maps the principles defined in the Open Group’s TOGAF to theoretical concepts drawn from the VSM/VGM and cybernetics.

The first paper in the second session, Using Business Transactions to Analyse the Consistency of Business Process Models, proposes using the concepts set forth by the Design & Engineering Methodology for Organizations (DEMO) to analyse the consistency and completeness of existing business process models according to business transactions. The method assesses the consistency of a business process in terms of the business transactions that can be inferred from it.

The architecting process involves many stakeholders (e.g., architects, IT staff, and business staff) with very diverse and often conflicting goals. This makes architecting a daunting process. However, coordination in EA has received very little attention in the literature. The next paper, A Self-Fueling Coordination Model for Enterprise Architecting, reports on two case studies that investigated one highly successful and one less successful EA practice. Both organizations had very competent business, IT and EA staff and very active architecting coordination via communication and task programming. But only the successful organization had a strong team cognition, underscoring the importance of cognitive coordination in architecting.

The final paper, Disentangling the Value of Information and Analytics Through Componentized Business Architecture, presents models and techniques to help assess the value of information and analytics at the realm of the asset base of organizations. The approach is based on models of business operations and the way information (raw and analytical) is connected to the organization and its business priorities. This linkage builds upon the notions of componentized business architecture, simplified information metamodel and basic relationship between the two concepts.