Editorial Preface

Special Issue on Leading Enterprise Standards, Theories, and Practices

Wim Laurier, Saint-Louis University & Ghent University, Brussels & Ghent, Belgium
Mark von Rosing, Global University Alliance, Chateau Du Grand Perray, France

The purpose of this special issue is to share the work of standards bodies like LEADing Practice, the Object Management Group (OMG), the International Organization for Standardization (ISO) or the Institute of Electrical and Electronics Engineers (IEEE), with academia. This work has produced a new way of thinking, working, and modelling; which highlights the burgeoning of a much-needed interaction between academic research and practitioner usage (Hevner & Chatterjee, 2010). This special issue will therefore elaborate on how academics based on their research, build concepts and artefacts for academia and practitioners. These artefacts are to be constructed rigorously to meet up to academic standards and need to be relevant for practitioners as well (Sein, Henfridsson, Purao, Rossi, & Lindgren, 2011). The objectives are therefore to share the interactions between academia and practitioners and how they best work together.

One of the major challenges facing practitioners and their interactions with academia is overcoming a presently fragmented way of thinking, working and modelling in enterprise standards. Business frameworks, methods, approaches and concepts currently have their own vocabulary. Each of these vocabularies has its own definition of terms, like "strategy" or "process", including conflicting visual representations (Moody, 2009). We anticipate that pivotal standards bodies such as the OMG and NATO would welcome outcomes that resolve the existing problem they have today around different shapes, notations, descriptions as well as semantic relations around the same term (e.g. process, activity). For example, for the OMG a unifying ontology and semantics would bridge these gaps between their Business Process Model Notation (BPMN), Case Management Model Notations (CMMN) and Value Delivery Model Language (VDML) standards, all of which are otherwise of high quality and internally consistent (Cummins & de Man, 2013; Silver, 2014). Likewise, the Open Group would be able to take advantage of this approach in bringing their equally respected The Open Group Architecture Framework (TOGAF) and Archimate standards closer together (Gill, 2015; NAF; Vicente, Gama, & Silva, 2013). This special edition offers one opportunity to ease that path with the business ontology and specific details around how to apply an ontology e.g. role oriented ontology as well as related modelling concepts.

This special issue promotes knowledge transfer between business and academia to advance the state of the art for both academics and practitioners. The accepted submissions are written to be applicable by any organisation, large or small, regardless of its frameworks, methods, products/services, or activities. We encourage academics to focus on the relevance of their work by making it applicable in practice and practitioners to focus on rigor by documenting their ways of thinking, working and modelling in a format that meets academic standards.

This Special Issue consists of four peer-reviewed papers all of which relate to the subject of how to apply the business ontology, enterprise semantics and enterprise standards discussed in earlier IJCSSA publications. The first paper discusses the need and the value of role oriented ontology and the needed semantics that were developed by the Global University Alliance (GUA), which also works with the different standard bodies described above. This paper elaborates on the concepts of the business ontology and enterprise semantics published in an earlier issue of the IJCSSA. Those papers were: *An Introduction to the Business Ontology* (von Rosing & Laurier, 2015), and *Using the Business Ontology to develop Enterprise Standards* (von Rosing & von Scheel, 2016). The second paper addresses how the role oriented ontology can be related to modelling principles. The third and fourth paper are case studies, demonstrating the use of this methodology in real-life situations. The first case story demonstrates the use of the specific role oriented ontology and with it the role oriented modelling concepts at NS Rail, the Dutch railway. The second case story covers the SAL Heavylift journey and how they tailored their strategy to address the opportunities within the market, discussing the issues faced by such a complex environment and the value that modelling disciplines bring. Both papers also relate to another case study published in an earlier issue of IJCSSA, namely *Using a Business Ontology for Structuring Artefacts: Example - Northern Health* (von Rosing, Urquhart & Zachman, 2015).

REFERENCES

Cummins, F. A., & de Man, H. (2013). VDML – BPMN mapping and transformation paper *VDML – BPMN Relationships*: Agile Enterprise Design (AED) and VDMbee.

Gill, A. Q. (2015). Agile enterprise architecture modelling: Evaluating the applicability and integration of six modelling standards. *Information and Software Technology*, *67*, 196–206. doi:10.1016/j.infsof.2015.07.002

Hevner, A., & Chatterjee, S. (2010). Design Science Research in Information Systems. In *Design Research in Information Systems* (pp. 9–22).

Moody, D. (2009). The Physics of Notations: Toward a Scientific Basis for Constructing Visual Notations in Software Engineering. *IEEE Transactions on* Software Engineering, *35*(6), 756–779.

NAF (Producer). (2016, March 30). Archimate and TOGAF, What is the added value? [Presentation]. Retrieved from http://www.naf.nl/content/bestanden/archimate_and_togaf_v3.pdf

Sein, M. K., Henfridsson, O., Purao, S., Rossi, M., & Lindgren, R. (2011). Action design research. *Management Information Systems Quarterly*, *35*(1), 37–56.

Silver, B. (2014, May 14). BPMN and CMMN compared. Retrieved from http://brsilver.com/bpmn-cmmn-compared/

Vicente, M., Gama, N., & Silva, M. M. (2013). Using ArchiMate and TOGAF to Understand the Enterprise Architecture and ITIL Relationship. In X. Franch & P. Soffer (Eds.), *Advanced Information Systems Engineering Workshops: CAiSE 2013 International Workshops, Valencia, Spain, June 17-21, 2013. Proceedings* (pp. 134-145). Berlin, Heidelberg: Springer Berlin Heidelberg. doi:10.1007/978-3-642-38490-5_11

von Rosing, M., & Laurier, W. (2015). An Introduction to the Business Ontology. *International Journal of Conceptual Structures and Smart Applications*, *3*(1), 20–41. doi:10.4018/IJCSSA.2015010102

von Rosing, M., Urquhart, B., & Zachman, J. A. (2015). Using a Business Ontology for Structuring Artefacts: Example - Northern Health. *International Journal of Conceptual Structures and Smart Applications*, *3*(1), 42–85. doi:10.4018/IJCSSA.2015010103

von Rosing, M., & von Scheel, H. (2016, January). Using the Business Ontology to develop Enterprise Standards. *International Journal of Conceptual Structures and Smart Applications*, *4*(1), 48–70. doi:10.4018/IJCSSA.2016010103