VMBO 2021 15th International Workshop on Value Modelling and Business Ontologies

Bolzano, Italy, March 04-05, 2021

Edited by

Giancarlo Guizzardi Tiago Prince Sales Cristine Griffo Mattia Fumagalli Copyright 2021 for the individual papers by the papers' authors. Copyright 2021 for the volume as a collection by its editors. This volume and its papers are published under the Creative Commons License Attribution 4.0 International (CC BY 4.0)

Program Chairs' addresses:

Giancarlo Guizzardi – giancarlo.guizzardi@unibz.it Tiago Prince Sales - tiago.princesales@unibz.it Cristine Griffo – cristine.griffo@unibz.it Mattia Fumagalli – mattia.fumagalli@unibz.it

Free University of Bozen-Bolzano Conceptual and Cognitive Modelling Research Group (CORE) CEP 39100, Bolzano BZ, Italy

15th International Workshop on Value Modelling and Business Ontologies VMBO 2021

Program Committee Chairs Giancarlo Guizzardi – Free University of Bozen-Bolzano, Italy / University of Twente, The Netherlands Tiago Prince Sales – Free University of Bozen-Bolzano, Italy Cristine Griffo – Free University of Bozen-Bolzano, Italy Mattia Fumagalli – Free University of Bozen-Bolzano, Italy

Organization Committee Claudenir M. Fonseca – Free University of Bozen-Bolzano, Italy Glenda Amaral – Free University of Bozen-Bolzano, Italy

Program Committee Ben Roelens - Open University, The Netherlands Bill McCarthy - Michigan State University, USA Birger Andersson - Stockholm University, Sweden Christian Huemer - TU Wien, Austria Daniele Porello – Laboratory for Applied Ontology – ISTC-CNR, Italy Erik Proper – Luxembourg Institute of Science and Technology, Luxembourg Frederik Gailly - Ghent University, Belgium Faiza A. Bukhsh – University of Twente, The Netherlands Geert Poels – Ghent University, Belgium Graham Gal – University of Massachusetts, USA Hans Weigand – Tilburg University, The Netherlands Iván Razo-Zapata – Instituto Tecnológico Autónomo de México (ITAM), Mexico Jaap Gordijn – Vrije Universiteit Amsterdam, The Netherlands João Paulo A. Almeida – Federal University of Espírito Santo, Brazil Joris Hulstijn – Tilburg University, The Netherlands Marten van Sinderen - University of Twente, The Netherlands Michaël Verdonck – Vrije Universiteit Brussel, Belgium Mike Bennett – Hypercube Limited, UK Nicola Guarino – Laboratory for Applied Ontology – ISTC-CNR, Italy Paul Johannesson - Stockholm University, Sweden Pavel Hruby Renata S. S. Guizzardi – University of Twente, The Netherlands Walter Schwaiger - TU Wien, Austria Wim Laurier – Université Saint-Louis, Belgium Yao-Hua Tan – Delft University of Technology, The Netherlands

Preface

The importance of modeling the essence of enterprises on a level that abstracts from operational details is increasingly recognized. In the tradition of this event, now in its 15th edition, there is a focus on two established approaches for addressing this problem: value modeling and business ontology. The latter is about understanding the nature of enterprise phenomena, as well as providing abstract descriptions of enterprises in their business context, focusing on what is needed to create and transfer value. The former is a business modeling approach that focuses on the value objects and experiences and how they are connected in complex value networks.

VMBO is workshop series with a loyal community and a noticeable critical mass. It is an event centered on high-level discussions and on strengthening the scientific community around these topics. The main goal behind this event is to bring together researchers and practitioners in this area to present and discuss the current state of research in the field, as well as to identify key topics for further research. The community responded to our invitation to participate by submitting original research ideas and contributions, as well as by presenting problems and challenges encountered in practice.

In this edition of VMBO, the accepted papers were organized in the following sessions: Trust and its relation to Value; Enterprise and Domain Modeling; Money and Contracts, as well as the traditional topic of the REA (Resources, Events, Agents) framework.

Mike Rosen (Chief Scientist at Wilton Consulting Group) kindly accepted our invitation to present the talk entitled "The BIZBOK (\mathbb{R} Guide: Open Challenges and Collaboration Opportunities". In this talk, he presented the guide to the business architecture body of knowledge produced by the Business Architecture Guild, which is a not-for-profit organization dedicated to improving the profession and practice of business architecture.

Finally, VMBO 2021 could count with two very interesting keynote speakers. On the first day of the event, João Paulo A. Almeida (NEMO - Ontology and Conceptual Modeling Research Group, Federal University of Espírito Santo, Brazil) delivered the talk entitled "The impact of an Ontological Theory of Relations in Enterprise Modeling". In this talk, he spoke about how an ontological theory of relations could be used to address phenomena such as services, service networks, contracts, trust, value, and risk. On the second day, Daniel Amyot (University of Ottawa, Canada) delivered the talk entitled "Contract Specification and Verification: Experience with the Symboleo Language". In this talk, he presented the Symboleo language as well as its supporting ecosystem, and illustrated how they could be used for the formal specification, automated analysis, and monitoring of smart legal contracts.

Our original plan was to welcome the entire community in Bolzano, South Tyrol, Italy. However, unfortunately, due to the COVID-19 pandemic, we were forced to host the whole event online. We thank the VMBO community for entrusting us with the organization of this event, the authors for their submissions, and the program committee for their timely and informative reviews. Moreover, we are very grateful to our invited speakers for accepting our invitation and for delivering such high-quality talks at VMBO 2021.

February 2021

Giancarlo Guizzardi Tiago Prince Sales Cristine Griffo Mattia Fumagalli