
Preface

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Biographical notes: Giancarlo Guizzardi received his PhD (with the highest distinction) from the University of Twente, in The Netherlands (2005). He has also been a Visiting Scientist, Research Collaborator and Associate Researcher at the Laboratory for Applied Ontology (LOA), in Trento, Italy. He is currently an Associate Professor at the Computer Science Department at the Federal University of Espírito Santo, Brazil, where he leads the Ontology and Conceptual Modeling Research Group (NEMO). His main research interest is concerned with the application of techniques from formal ontology, cognitive sciences, linguistics and philosophical logics to the development of theoretically well-founded tools for conceptual modelling.

Gerd Wagner holds the Chair of Internet Technology at Brandenburg University of Technology, Germany. He studied mathematics, philosophy and computer science at universities in Heidelberg, San Francisco and Berlin. His research is dedicated to knowledge representation, semantic web technologies, agent-oriented modelling and simulation, and foundational ontologies. He has held positions in industry (Siemens), public research (CNRS), and at various universities (Berlin, Toulouse, Lisbon, Leipzig and Eindhoven). He was principal investigator of several national research projects in Germany and the Netherlands, and he has more than 100 peer-reviewed publications in various journals and proceedings.

Vocabularies, ontologies, and business rules are key components of a model-driven approach to enterprise computing in a networked economy. The workshop series VORTE was started in 2005 with the goal of bringing together researchers and practitioners in areas such as enterprise architecture, information systems, business rules, model-driven engineering, and the semantic web, for investigating and discussing the relationships and synergies between these areas. Both the economic globalisation and the growing importance of the web as a ubiquitous infrastructure for information systems, services and automated interactions within and across organisations are drivers for much of the ongoing research in the areas relevant to VORTE.

The first VORTE workshop took place on 20 September 2005 in Enschede, the Netherlands, in conjunction with EDOC 2005, and its latest workshop took place in conjunction with the EDOC 2009 conference in Auckland, New Zealand, on 1 September 2009. The papers of this special issue were collected in 2006, but the topics they address are still highly relevant.

This issue of the *IJBPM* has two parts: the first part is the special issue containing three articles that are based on papers presented at the VORTE 2005 workshop. In addition, this issue also contains two articles submitted as regular contributions to *IJBPM*.

The first contribution, by Bottazi and Ferrario, with the title 'Preliminaries to a DOLCE ontology of organisations', is concerned with the ontological foundations of organisation and enterprise modelling. Their approach is to extend the foundational ontology DOLCE by adding the constructs needed for being able to explain the structure of organisations. The main constructs considered are: concepts, norms and roles as defined by an organisation, and agents being members of an organisation and playing one or more roles within it. Remarkably, there is a close relationship between what is discussed as the concepts and norms of an organisation in this paper and the VORTE theme of vocabularies, ontologies and business rules defined and used by an organisation: concepts are defined with the help of vocabularies and ontologies, while norms are defined with the help of business rules.

The second contribution, by Falbo and Bertollo, has the title 'A software process ontology as a common vocabulary about software processes'. It proposes an ontology for software engineering processes with the goal of providing a common vocabulary that is able to unify the incompatible vocabularies of various established process standards. The proposed software process ontology consists of an activity ontology, a resource ontology and a procedure ontology.

The third contribution, by Rosemann, Recker, Green, and Indulska has the title 'Using ontology for the representational analysis of process modelling techniques'. It addresses the important question of how to evaluate business process modelling languages using a foundational ontology as a reference frame. Based on the experience made with a considerable number of process modelling language evaluations using the BWW representational analysis technique, the paper discusses the potential and the limitations of this approach and suggests several possible improvements of it.

Finally this issue also contains two articles submitted as regular contributions to this journal. The paper by Wang, Zhou and Ng on 'A cooperative framework for XML database-as-a-service' is concerned with the bandwidth overload problem arising for XML data services on the web, and the paper by Wang, Hu and Yiu, on 'A predictive admission control algorithm for user advance reservation in equipment grid', discusses the problem how to schedule service requests given certain quality of service (QoS) requirements by forecasting the resource use of the grid.

We hope that readers will find the papers of this special issue interesting and inspiring.

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