Enterprise ontology and conceptual modeling

pel professor

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Abstract:

The seminar will provide an overview of recent research on the application of enterprise ontology in conceptual modeling. We will first introduce basic concepts of enterprise ontology and next discuss design science and natural science research results obtained by applying the REA ontology to the conceptual modeling of accounting information systems. Topics discussed include the formalization of the REA ontology using UML, OWL and CDX profiling, the development of REAP which is a conceptually clean and more complete version of REA aligned with SOWA and BWW upper-level ontologies and formalized using Petri-nets, the integration of REA with GORE techniques and in particular i*, and a brief overview of our experiments demonstrating the benefits for user understanding of including REA patterns in ER or UML class diagrams that are used as conceptual models of accounting information. The seminar will end with a discussion of lessons learned, open problems and opportunities for further research.

Bio:

Geert Poels (Geert.Poels@UGent.be) is a Professor with the rank of Lecturer at the Department of Management Information Science and Operations Management of Ghent University (Belgium). He is head of the Management Informatics research unit. He holds degrees in Business Administration and Computer Science, and a Ph.D. in Applied Economic Sciences. His research interests include software metrics, conceptual modeling, business ontology and accounting information systems. Dr. Poels has published in IEEE Transactions on Software Engineering, Data & Knowledge Engineering, Software and Systems Modeling, Information and Software Technology, Information Systems Journal and European Journal of Information Systems, and presented at conferences such as ER and CAiSE. In 2002, 2003, 2006 and 2007 he co-organized the IWCMQ/QoS workshops on conceptual model and information system quality at the ER conference.

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