BISE – Call for Papers Issue 1/2010

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Semantics and Web 2.0 Technologies to Support Business Process Management

Business Process Management (BPM) includes methods, techniques, and tools to support modelling, implementation, execution, and analysis of business processes. Often, it is suggested to supplement BPM with Service-Oriented Architectures (SOA). On the one hand, BPM emphasizes a business perspective: It specifies business processes that define how organizational resources (including IT resources) are used to achieve business goals. On the other hand, SOA focuses on IT architectures that are intended to be conveniently adapted to changing business requirements. Furthermore, SOA is promising to leverage IT investments not only by re-using off-the-shelf components, but also by encapsulating existing legacy systems.

However, despite the promising perspective that is offered by combining BPM and SOA, many challenges remain. On the one hand, they are related to the flexibility of information systems. For instance, in many existing BPM execution environments the resolution of the service types specified at design time is still hard-coded. That makes the processes less flexible and less adjustable to changing environments. On the other hand, they are related to the lack of standardized, high-level services, which makes replacing an existing component a demanding and risky task.

Enriching business process specifications as well as service descriptions with semantics is promising to effectively target these challenges. Research on so called Web 2.0 technologies is aimed at ontology-based, machine-interpretable representations of knowledge about business processes and related services in order to foster automated discovery, composition, and execution

of Web Services. In addition to that, core ideas of the Web 2.0 approach are suited to promote collaborative research as well as the effective dissemination of research results, e. g. by jointly developing and reviewing ontologies or reference models.

This special issue is dedicated to two main goals: On the one hand, it serves to present advanced research on Web 2.0 technologies and on ontologies that is targeting more versatile and efficient business processes. On the other hand, contributions from other communities that deal with BPM and conceptual modelling – e. g. process modelling, enterprise modelling, enterprise architectures – are appreciated, too, since there is much potential in mutually enriching these various approaches.

Contributions from research and business practice on the following (and related) topics are invited:

- use of Web 2.0 technologies in BPM
- semantics for adaptive discovery and enactment of services
- integrating Semantic Web approaches with enterprise modelling frameworks
- integrating applications at the semantic level
- comparison of conceptual modelling techniques and ontology-based specifications
- reference models of business processes and/or services
- process mining to support BPM
- business process model driven development of information systems
- enriching business process models with ontologies
- approaches to improve the flexibility of BPM
- service-oriented enterprise
- executable business process specifications
- IT management aspects of enhancing BPM with Semantic Web

Submission

Please submit papers by 2009-05-01 to Prof. Dr. Ulrich Frank (ulrich.frank@uni-due.de). Please observe the instructions regarding the format and size of contributions to Business & Information Systems Engineering (BISE). Papers should not exceed 10 pages; this amounts to 50,000 characters including spaces, minus 5,000 characters per page for illustrations. Papers should be submitted electronically in German or English (as *.doc- or *.rtf-files).

All papers will be reviewed anonymously (double-blind process) by several reviewers with regard to relevance, originality, and quality of research. In addition to the editors of the journal, including those of this special focus, renowned international professionals with scientific or business background will be involved in the review process.

Complementary articles covering topics of this special issue are also more than welcome for other sections of the journal, e. g. for BISE – State of the Art, BISE – Catchword, and BISE – Profile. Please send those articles directly to hans-ulrich.buhl@wiwi.uni-augsburg.de.

Schedule

Submission deadline:
2009-05-01
Author notification:
2009-06-26
Completion of first revision:
2009-08-24
Author notification:
2009-10-30
Completion of a second revision (if needed):
2009-11-16
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Editors of the special focus

Prof. Dr. Witold Abramowicz
Department of Management Information Systems
The Poznan University of Economics
Al. Niepodleglosci 10
60967 Poznan, Poland
witold@abramowicz.pl

Prof. Dr. Dieter Fensel
University of Innsbruck
STI Innsbruck
Technikerstraße 21a
6020 Innsbruck, Austria
dieter.fensel@sti2.at

Prof. Dr. Ulrich Frank
Chair of Information Systems and Enterprise Modelling
University Duisburg-Essen
Campus Essen, Building R09
Information Systems
Universitätsstr. 9
45141 Essen, Germany
ulrich.frank@uni-due.de