EUROPEAN JOURNAL OF INFORMATION SYSTEMS

Special Issue Editors

Dr Mark Lycett
School of Information Systems, Computing and Mathematics
Brunel University
Uxbridge, Middlesex, United Kingdom

Dr Esperanza Marcos
Departament of Computing Languages and Systems (LSI)
Universidad Rey Juan Carlos
Madrid, Spain

Professor Veda Storey
J. Mack Robinson College of Business Administration
Georgia State University
Atlanta, Georgia, USA

Manuscript Details

Manuscripts should be between 4500-6000 words in length and must include a separate title page giving the names and addresses of the authors. All contributions will be subjected to a double blind review process. Manuscripts must be sent in electronic form (i.e., Word or PDF) to ejis@brunel.ac.uk by **Friday 27th October 2006** (or earlier) and should follow the style guidelines of the European Journal of Information Systems - http://www.palgrave-journals.com/ejis/

Special Issue On

Model-Driven Systems Development

Call For Papers

There is a significant disconnect between the ideals of the 'on-demand' business and the way that we currently develop information systems. Growing competition, globalization, increasing regulation, merger and acquisition and innovative business models require organizations to be flexible and adaptable. The ability of existing computer-based information systems to meet the challenges of on-demand business is, however, limited. Historically, business models have been embedded in code that does not distinguish those models from the assumptions and platform constraints of particular technology approaches. In many cases, models are not semantically well-formed: The description of business things and relationships vary greatly across different systems and the code is, in fact, the only representation of the model. In addition, in many legacy environments the human 'memory' of the business knowledge has evaporated as staff retire and/or move on to other jobs. The reality of this situation is evidenced in the general cost profile of systems development, where the bulk of spending and effort lies not in the development of new systems, but in the (evolutionary) maintenance, integration and interoperability of existing systems. This situation provides a challenge to the generally accepted approaches to systems development.

In response, model-driven development has emerged as a potential means of divorcing business issues from the underlying technology platforms, in a way that makes change more manageable. Model-driven approaches see the primary system development artifacts only as models and their transformations; the technological element of an information system is simply generated from models. To help manage the journey from 'real world' to code, the prevalent architectural approach partitions models into those that are (a) computation independent, (b) platform independent and (c) platform specific. Such frameworks are not easily translated into practice however. As an example, the computation independent layer is not well understood but implicitly makes strong demands in relation to understanding of the types of things and relations that exist in the real world. Similarly, the transformations between models should be considered as first class models in their own right and demand strong semantic treatment. Across the board, models also need to be developed at an appropriate level of (a) abstraction, (b) generalization and (c) precision and accuracy. In practical terms, the approach therefore requires significant thinking in relation to both model development and the modeling process if it is to be of value to organizations.

The aim of this special issue is to explore such challenges. Relevant topics of study include, but are not limited to:

- Business modeling (computational independent) from a model-driven perspective
- Business value of modeling
- Ontology and information content
- Limitations of current modeling approaches in relation to understandability
- The role and importance of model (and transformation) semantics
- Mining and modeling knowledge locked in legacy systems
- Accuracy and precision of models
- Abstraction and generalization in models
- Model management (inc. model complexity and change management)
- Flexible and adaptable business models and architectures
- The role and importance of architecture and implications of competing standards
- The role and importance of standards and implications of competing standards
- Issues in model-driven development
- Tools for model-driven development
- Practical applications of model-driven development

ISSN 0960-085X - Online ISSN: 1476-9344
ISI Journal Citation Reports® Ranking: 2004: 32/78 - Computer Science, Information Systems- Impact Factor 1.000