# Second Call for Papers International Workshop on Fact-Oriented Modeling (ORM 2012)

Rome, Italy September 12-14, 2012

Held in conjunction with OTM'2012 (Sep. 10-14) <a href="http://www.onthemove-conferences.org/">http://www.onthemove-conferences.org/</a>

Proceedings will be published by Springer Verlag

Paper Submission Deadline: 2012 May 25 (abstracts due May 18)

#### **Background:**

Following successful workshops held in Cyprus (2005), France (2006), Portugal (2007), Mexico (2008), Portugal (2009), and Crete (2010 and 2011) this is the eighth in a series of fact-oriented modeling workshops run in conjunction with the OTM conferences. Fact-oriented modeling is a conceptual, natural-language-based approach to modeling and querying the information content of business domains in terms of the underlying facts of interest, where all facts and rules may be verbalized in language readily understandable by users of those business domains.

Unlike Entity-Relationship (ER) modeling and UML class diagrams, fact-oriented modeling treats all facts as relationships (unary, binary, ternary etc.). How facts are grouped into structures (e.g. attribute-based entity types, classes, relation schemes, XML schemas) is considered a design level, implementation issue that is irrelevant to the capturing of essential business semantics. Avoiding attributes in the base model enhances semantic stability and populatability, as well as facilitating natural verbalization and thus more productive communication with all stakeholders. For information modeling, fact-oriented graphical notations are typically far more expressive than those provided by other notations. Fact-oriented textual languages are based on formal subsets of native languages, so are easier to understand by business people than technical languages like OCL. Fact-oriented modeling includes procedures for mapping to attribute-based structures, so may also be used to front-end other approaches.

Fact-oriented modeling has been used successfully in industry for over 30 years, and is taught in universities around the world. The fact-oriented modeling approach comprises a family of closely related "dialects", the most well known being Object-Role Modeling (ORM), Cognition enhanced Natural language Information Analysis Method (CogNIAM) and Fully-Communication Oriented Information Modeling (FCO-IM). Though adopting a different graphical notation, the Object-oriented Systems Model (OSM) is a close relative, with its attribute-free philosophy. The Semantics of Business Vocabulary and Business Rules (SBVR) proposal adopted by the Object Management Group in 2007 is a recent addition to the family of fact-oriented approaches.

Commercial tools supporting the fact-oriented approach include the ORM solution within Microsoft's Visio for Enterprise Architects, the CogNIAM tool Doctool, the FCO-IM tool CaseTalk, and the Collibra ontology tool suite. The NORMA (Natural ORM Architect) tool for ORM 2 is available as a free, open-source plug-in to Visual Studio; a commercial, professional version of NORMA is also under development. Free ORM tools include InfoModeler, Infagon, ActiveFacts, and ORM-Lite. DogmaStudio is an ORM-based tool for specifying ontologies. Various SBVR tools are also currently under development. General information about fact-orientation may be found at The ORM Foundation site <a href="https://www.ORMFoundation.org">www.ORMFoundation.org</a>.

#### **Goals and Topics:**

The main goal of this workshop is to provide a forum for practitioners and researchers interested in factoriented modeling methods to meet, and exchange research and implementation ideas and results. It also provides this group of practitioners/researchers an opportunity to present their research papers and experience reports, and to take part in open discussions. Relevant topics include (but are not limited to) theoretical and/or empirical exploration of fact-oriented modeling methods, as well as case studies and experience reports related to:

- Theory/principles of fact-oriented modeling (ORM, CogNIAM, SBVR, FCO-IM etc.)
- Application of fact-oriented modeling to data warehousing and business intelligence
- Fact-oriented integration of business information, processes and events
- Fact-oriented modeling of ontologies
- Metamodels for fact-oriented modeling and business practice
- Fact-oriented metamodeling best practices
- Fact orientation, communication and understandability
- Industrial experience with fact-oriented modeling
- Fact-orientation and terminology science and practice
- Fact-oriented application generation
- Educational experience with fact-oriented modeling
- Fact-oriented modeling and business rules
- Temporal issues in fact-oriented modeling
- Fact-oriented modeling and business service modeling
- Fact-oriented modeling and workflow modeling
- Fast-oriented modeling and data integration
- Agent-oriented extensions to fact-oriented modeling
- Tools to support fact-oriented modeling and business practice
- Fact-orientation and verbalization of business rules
- Fact-orientation and validation of business rules
- Fact-oriented query languages
- Transforming fact-based models to/from attribute-based models
- Comparing fact-orientation with other approaches

# **Intended Audience:**

The workshop is primarily aimed at researchers and practitioners interested in conceptual modeling approaches for the analysis and design of information systems and ontologies, including modeling of data, processes and events. Attendees familiar with fact-oriented approaches have the opportunity to update and deepen their knowledge and expertise in this area. Attendees less familiar with fact-oriented approaches have an ideal opportunity to learn about the approach from world experts in the area, and adopt or adapt the many benefits of the approach.

## Workshop co-chairs:

Terry Halpin LogicBlox, Australia and INTI International University, Malaysia Herman Balsters University of Groningen, The Netherlands

#### Important Dates (2012):

Abstracts due: May 18
Papers due: May 25
Acceptance Notification: July 2

Camera-ready copies: July 16 Registration due: July 16

OTM Conferences: September 10-14

#### **Submission Guidelines:**

All submitted papers will be evaluated by at least three members of the program committee, based on originality, significance, technical soundness, and clarity of expression. Submissions must be in English, and may discuss industrial experience and/or academic research. The first page should begin with the title of the paper followed by author names and affiliations and an abstract of no more than 150 words. Papers should not exceed 5,000 words (excluding references and appendices), and should not exceed 10 pages in the final camera-ready format (see later). Papers are normally allocated 45 minutes for presentation. Only electronic submissions in Adobe PDF format are acceptable. Abstracts and papers should be submitted to the following site:

#### https://www.easychair.org/conferences/?conf=orm2012

The proceedings will be published by Springer Verlag in their LNCS (Lecture Notes in Computer Science) series. The final paper (if accepted) should be formatted using the Springer LNCS style, as described at <a href="http://www.springer.de/comp/lncs/authors.html">http://www.springer.de/comp/lncs/authors.html</a>. Failure to commit to presentation at the workshop automatically excludes a paper from the proceedings.

## **Program committee:**

Herman Balsters University of Groningen, The Netherlands

Linda Bird Independent Contractor, Australia
Anthony Bloesch Microsoft Corporation, USA

Peter Bollen Maastricht University, The Netherlands Andy Carver INTI International University, Malaysia

Matthew Curland LogicBlox, USA

Dave Cuyler Sandia National Laboratories, USA

Necito Dela Cruz Boston Scientific, USA

Ken Evans ORM Foundation and University of Lincoln, UK

Pat Hallock InConcept, USA

Terry Halpin LogicBlox, Australia and INTI International University, Malaysia

Clifford Heath Data Constellation, Australia

Stijn Hoppenbrouwers Radboud University, Nijmegen, The Netherlands Mike Jackson Birmingham City University, United Kingdom

Mustafa Jarrar Birzeit University, Palestine Inge Lemmens PNA, The Netherlands

Dirk van der Linden Public Research Centre Henri Tudor, Luxembourg

Tony Morgan INTI International University, Malaysia

Maurice Nijssen PNA, The Netherlands

Baba Piprani MetaGlobal Systems, Canada

Erik Proper Public Research Centre Henri Tudor, Luxembourg

Gerhard Skagestein University of Oslo, Norway
Peter Spyns Vrije Universiteit Brussel, Belgium

Serge Valera European Space Agency, The Netherlands

Theo van der Weide Radboud University, Nijmegen, The Netherlands

Jos Vos ABP/AMC, Heerlen, The Netherlands

Jan Pieter Wijbenga TNO, The Netherlands

# For more information on the workshop, please contact:

Dr Terry Halpin

e-mail: terry.halpin@logicblox.com