Educators' Symposium at MODELS 2009

Robert France, Martin Gogolla

Colorado State University (USA), University of Bremen (D)
Computer Science Department

1 Context and Aim

The Educator's Symposium at the MODELS conference, the premier conference devoted to the topic of model-driven engineering of software-based systems, is intended as a forum in which educators and trainers can meet to discuss pedagogy, use of technology in the classroom, and share their experience pertaining to teaching modeling techniques and model-driven development.

Model-driven development approaches and technologies for software-based systems, in which development is centered round the manipulation of models, raise the level of abstraction and thus, improve our abilities to develop complex systems. A number of languages (e.g., UML, Alloy), approaches (e.g., OMG's MDA, MIC, Multi-Modeling), and tools (e.g., Fujaba, GME, USE, OCLE) have been proposed for the model-driven development (MDD) of software-based systems.

Putting the model-driven development vision into practice requires not only sophisticated modeling approaches and tools, but also considerable training and education effort. Practitioners in industry as well as education and training specialists need to understand the principles underlying MDD, and the strengths and limitations of current MDD tools and techniques. Such understanding is needed for proper selection and use of MDD technologies in industrial software development projects.

Industry is striving to improve their practice of software development by adopting MDD. The adoption, nevertheless, is determined by the availability of skilled software engineers who have been educated and trained in modeling and model-driven development. MDD educators and trainers can influence the practices in industry by producing an increasing number of graduates with deep understanding of MDD principles, technologies and challenges.

The Educators' Symposium at MODELS 2009 will include paper presentations and discussions as well as panels and invited statements on the symposium topics by teachers from acedemia and industry.

2 Themes

In this fifth version of the symposium we focus discussions on the resources needed to effectively educate future MDD practitioners. In particular, we will hear about efforts on developing community-based MDD education resources,

that is, resources that allow educators in the MDD community to share, evaluate, and evolve education artifacts. These artifacts should be based upon synergies between industrial needs and academic education and research goals. Therefore papers on the following topics were expected:

- Education artifacts that can be effectively shared through a community-based MDD resource.
- Descriptions of existing community-based MDD education resources.
- Plans for developing and maintaining community-based education resources.

Also encouraged were contributions discussing general questions and topics of more broader interest as for example:

- Designing university courses at various levels with industrial needs in mind.
- How to include industrial experiences into teaching modeling and MDD.
- How to ensure and assess industrial relevance of the contents of modeling courses.
- How to assess industrial relevance of the teaching and learning process.
- How the teaching of modeling techniques influences industrial practices.
- Methodology issues (how to teach modeling or MDD) with industry in mind.
- Integrating modeling and MDD into the software engineering curriculum.
- Teaching modeling and MDD and associated tools (requirements, available tools).
- Experience reports from designing university courses in modeling with industrial focus.
- Requirements from industry for university education in MDD.
- Experiences from industry about university education in MDD.
- Case studies on required skills for realizing the vision of MDD.

3 Program Committee

The paper selection was carried out by an international Program Committee.

- Jordi Cabot, University of Toronto, Canada
- Peter Clarke, Florida International University, USA
- Jeff Gray, University of Alabama at Birmingham
- Oystein Haugen, SINTEF and University of Oslo, Norway
- Ludwik Kuzniarz, Blekinge Institute of Technology, Sweden
- Timothy Lethbridge, University of Ottawa, Canada
- Michal Smialk, Warsaw University of Technology, Poland