

Preface

The objective of the workshops associated with the ER2000 19th International Conference on Conceptual Modeling was to give participants the opportunity to present and discuss emerging, hot topics, thus adding new perspectives to conceptual modeling. This attracts communities which have begun to or which have already recognized the importance of conceptual modeling for solving their problems. To meet this objective, we selected the following two topics:

- Conceptual Modeling Approaches for E-Business (eCOMO2000) aimed at studying the application of conceptual modeling techniques specifically to e-business.
- The World Wide Web and Conceptual Modeling (WCM2000) which analyzes how conceptual modeling can help address the challenges of Web development, management, and use.

eCOMO2000 is the first international workshop on Conceptual Modeling Approaches for E-Business. It was intended to work out and to discuss the actual state of research on conceptual modeling aspects and methods within the realm of the network economy, which is driven by both traditionally organized enterprises and dynamic networks. Following the philosophy of the ER workshops, the selection of eCOMO contributions was done very carefully and restrictively (six accepted papers out of thirteen submissions) in order to guarantee an excellent workshop program. We are deeply indebted to the authors and to the members of the program committee, whose work resulted in this outstanding program. The contributions are organized into two sessions:

- *Modeling Approaches*. Clearly, e-business results in new challenges for information system developers in supplying Web-based services which will go far beyond existing notions like B2B (business-to-business) and B2C (business-to-consumer). This comes with new aspects and must be covered by modeling methods and techniques. The papers in this session discuss such aspects, e.g. the necessary ontology-based harmonization of Web content standards, the modeling of process-centered, highly complex systems, and the use of hypermedia modeling techniques for the conceptual design of electronic product catalogs.
- *Modeling E-Business Processes and Workflow Markets*. In the context of modeling, process modeling is an important issue. Processes are the “meat” of e-business. Common visual-oriented process modeling concepts may lead to “spaghetti process” models. Within this session an alternative approach leading to nested logic units according to the concept of linear programming is presented. Another contribution critically analyzes the widespread opinion that e-business models are similar to process models. It argues for a different position that views e-business as the exchange of values between actors. Last but not least, modeling aspects of electronic workflow markets are discussed.

WCM2000 is the second international workshop on the World Wide Web and Conceptual Modeling, following a very successful first workshop at ER'99. Interest this year was again strong. We received twenty-three submissions and accepted nine. We express our appreciation to the authors and program committee whose hard work made this excellent program possible. The papers are organized into three sessions:

- *Web Application Modeling I and II*. The current state of the Web clearly demonstrates the need for more organized approaches to Web application modeling. The papers in these sessions propose tools and techniques to improve the state of the art in Web development. Papers in the first session specifically address methods for developing Web applications that are personalized and support multiple output devices using *WebML* and *W3I3*; methods to improve the maintenance and evolution of Web applications using *OOHDM*; and new issues that arise in a Web context because of its integration of hypermedia and database aspects. Papers in the second session propose *webspaces* for modeling Web data; *user interaction diagrams* for modeling interactions and navigation in Web applications; and *WISDOM*, a framework for developing Web-based information systems.
- *Managing and Querying Web Data and Metadata*. In a Web context, meta-data is particularly helpful because it can enable the automated interchange and processing of information. The first paper in this session explores the use of the Resource Description Framework (RDF) standard, and proposes a method for modeling and querying RDF schemas. The second paper tackles the problem from a different perspective, recognizing that much existing unstructured or semistructured data must be managed, and so proposes an example-based environment for wrapper generation. The final paper explores the issue of improving Web queries by flexibly categorizing retrieved documents.

In order to provide the maximum benefit possible, the ER2000 workshops were open to all ER2000 attendees, and workshop sessions were held in parallel with other ER2000 sessions.

We acknowledge the hard work of the many individuals who made these workshops a great success. We appreciate the diligent service of the organizing committees and program committees. We especially acknowledge and thank Christian Kop, who managed many of the administrative details for eCOMO2000.

October 2000

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Conceptual Modeling for E-Business and the Web
ER 2000 Workshops on Conceptual Modeling
Approaches for E-Business and the World Wide Web
and Conceptual Modeling, Salt Lake City, Utah, USA,
October 9-12, 2000 Proceedings
Liddle, S.W.; Mayr, H.C.; Thalheim, B. (Eds.)
2000, X, 182 p., Softcover
ISBN: 978-3-540-41073-7