Contents

Part I An Introduction to Modeling Method Conceptualization

Fundamental Conceptual Modeling Languages in OMiLAB ............ 3
Dimitris Karagiannis, Robert Andrei Buchmann, Patrik Burzynski,
Ulrich Reimer and Michael Walch

SemCheck: Checking Constraints for Multi-perspective
Modeling Languages .................................................. 31
Manfred A. Jeusfeld

OMiLAB: An Open Collaborative Environment
for Modeling Method Engineering ............................... 55
David Götzinger, Elena-Teodora Miron and Franz Staffel

Part II Big Data

Design Semantics on Accessibility in Unstructured
Data Environments ................................................... 79
Nicholas Roussopoulos and Wilfrid Utz

Big Data—Integration and Cleansing Environment
for Business Analytics with DICE ............................. 103
Wilfried Grossmann and Christoph Moser

Part III Business Process Management

Using the Horus Method for Succeeding in Business Process
Engineering Projects ............................................. 127
Andreas Schoknecht, Arthur Vetter, Hans-Georg Fill
and Andreas Oberweis

Semantic Evaluation of Business Processes Using SeMFIS ......... 149
Hans-Georg Fill
Business Process Feature Model: An Approach to Deal
with Variability of Business Processes .......................... 171
Riccardo Cognini, Flavio Corradini, Andrea Polini and Barbara Re

Part IV Business and Process Transformation

Capability-Oriented Enterprise Knowledge Modeling:
The CODEK Approach ............................................. 197
Pericles Loucopoulos and Evangelia Kavakli

Supporting Business Process Improvement Through
a Modeling Tool ..................................................... 217
Florian Johannsen and Hans-Georg Fill

Part V Enterprise Information Systems

Multi-perspective Enterprise Modeling—Conceptual Foundation
and Implementation with ADOxx ................................ 241
Alexander Bock and Ulrich Frank

Holistic Conceptual and Logical Database Structure Modeling
with ADOxx .......................................................... 269
Frank Kramer and Bernhard Thalheim

Tool Support for the Semantic Object Model ..................... 291
Otto K. Ferstl, Elmar J. Sinz and Dominik Bork

Part VI Enterprise Strategic Management

Evaluation Chains for Controlling the Evolution
of Enterprise Models ................................................ 313
Frank Wolff

Part VII Internet of Things/Future Internet

Algebraic Method to Model Secure IoT .......................... 335
Yeongbok Choe and Moonkun Lee

Security Requirements Engineering for Cloud Computing:
The Secure Tropos Approach ...................................... 357
Haralambos Mouratidis, Nikolaos Argyropoulos and Shaun Shei

Part VIII Knowledge Engineering

MELCA—Customizing Visualizations for Design Thinking ...... 383
Igor Titus Hawryszkiewycz and Christoph Prackwieser
Business Process Flexibility and Decision-Aware Modeling—The Knowledge Work Designer ......................... 397
Knut Hinkelmann

Part IX  Production Management Systems

Modeling Product-Service Systems for the Internet of Things:
The ComVantage Method ........................................ 417
Robert Andrei Buchmann

User Story Mapping-Based Method for Domain Semantic Modeling ........................................ 439
Dimitris Kiritsis, Ana Milicic and Apostolos Perdikakis

Product-Service-System Modeling Method ................................ 455
Xavier Boucher, Khaled Medini and Hans-Georg Fill

Part X  Requirements Engineering

The i* Framework for Goal-Oriented Modeling ......................... 485
Xavier Franch, Lidia López, Carlos Cares and Daniel Colomer

Part XI  Service Science: Social Implications

Global Service Enhancement for Japanese Creative Services Based on the Early/Late Binding Concepts. ................. 509
Yoshinori Hara and Hisashi Masuda

HCM-L: Domain-Specific Modeling for Active and Assisted Living . . . . . . . . . . . . 527
Heinrich C. Mayr, Fadi Al Machot, Judith Michael, Gert Morak, Suneth Ranasinghe, Vladimir Shekhovtsov and Claudia Steinberger

Part XII  Technology Enhanced Learning

Modeling Learning Data for Feedback and Assessment .............. 555
Peter Reimann and Wilfrid Utz

Modeling for Learning in Public Administrations—The Learn PAd Approach ............................................. 575
Guglielmo De Angelis, Alfonso Pierantonio, Andrea Polini, Barbara Re, Barbara Thönssen and Robert Woitsch
Domain-Specific Conceptual Modeling
Concepts, Methods and Tools
Karagiannis, D.; Mayr, H.C.; Mylopoulos, J. (Eds.)
2016, XII, 594 p. 301 illus., Hardcover
ISBN: 978-3-319-39416-9