# TABLE OF CONTENTS

Foreword ......................................................................................................................... ix
Acknowledgements ......................................................................................................... xiii
List of Reviewers ........................................................................................................... xv
List of Authors ............................................................................................................... xvii

## I. OVERVIEW

   *Martin Hepp*

## II. INFRASTRUCTURE

2. Engineering and Customizing Ontologies ................................................................. 25
   The Human-Computer Challenge in Ontology Engineering
   *Martin Dzbor and Enrico Motta*

3. Ontology Management Infrastructures ..................................................................... 59
   *Walter Waterfeld, Moritz Weiten, and Peter Haase*

4. Ontology Reasoning with Large Data Repositories .................................................. 89
   *Stijn Heymans, Li Ma, Darko Anicic, Zhilei Ma, Nathalie Steinmetz, Yue Pan, Jing Mei, Achille Fokoue, Aditya Kalyanpur, Aaron Kershenbaum, Edith Schonberg, Kavitha Srinivas, Cristina Feier, Graham Hench, Branimir Wetzstein, and Uwe Keller*

## III. EVOLUTION, ALIGNMENT, AND THE BUSINESS PERSPECTIVE

5. Ontology Evolution ..................................................................................................... 131
   State of the Art and Future Directions
   *Pieter De Leenheer and Tom Mens*
# Table of Contents

6 Ontology Alignments ......................................................... 177
   An Ontology Management Perspective
   Jérôme Euzenat, Adrian Mocan, and François Scharffe

7 The Business View: Ontology Engineering Costs ................. 207
   Elena Simperl and York Sure

IV. EXPERIENCES

8 Ontology Management in e-Banking Applications ............... 229
   Integrating Third-Party Applications within an e-Banking Infrastructure
   José-Manuel López-Cobo, Silvestre Losada, Laurent Cicurel, José Luis Bas, Sergio Bellido, and Richard Benjamins

9 Ontology-Based Knowledge Management in
   Automotive Engineering Scenarios .................................. 245
   Jürgen Angele, Michael Erdmann, and Dirk Wenke

10 Ontologising Competencies in an
    Interorganisational Setting ......................................... 265
    Stijn Christiaens, Pieter De Leenheer, Aldo de Moor, and Robert Meersman

   About the Editors ......................................................... 289

   Index .............................................................................. 291