# Table of Contents

Foreword ........................................................................................................................................... xiii
Preface ................................................................................................................................................ xv
Acknowledgment ........................................................................................................................... xviii

## Section 1
Introduction: The Importance of Knowledge Sharing and Collaborative Environment

**Chapter 1**
Dealing with Structure Heterogeneity in Semantic Collaborative Information Systems ................. 1

*Eva Zangerle, University of Innsbruck, Austria  
Wolfgang Gassler, University of Innsbruck, Austria*

**Chapter 2**

*Brian D. Goodman, IBM Corporation, USA*

**Chapter 3**
SpotTheLink: A Game-Based Approach to the Alignment of Ontologies ........................................... 40

*Stefan Thaler, STI-Innsbruck, University of Innsbruck, Austria  
Elena Simperl, AIFB, Karlsruhe Institute of Technology, Germany  
Katharina Siorpaes, STI-Innsbruck, University of Innsbruck, Austria  
Stephan Wölger, STI-Innsbruck, University of Innsbruck, Austria*

**Chapter 4**
Knowledge Management .................................................................................................................. 64

*Salman Iqbal, Massey University, Manawatu Campus, New Zealand  
Hayati Abdul Jalal, Massey University, Manawatu Campus, New Zealand  
Paul Toulson, Massey University, Manawatu Campus, New Zealand  
David Tweed, Massey University, Manawatu Campus, New Zealand*
Section 2
Exploiting Semantic Technologies and Principles for Supporting Collaborative and Social Environments

Chapter 5
Enhancing Social Networks with Agent and Semantic Web Technologies ........................................ 83
Federico Bergenti, Università degli Studi di Parma, Italy
Enrico Franchi, Università degli Studi di Parma, Italy
Agostino Poggi, Università degli Studi di Parma, Italy

Chapter 6
Exploiting Social Media Features for Automated Tag Recommendation........................................ 101
Rabeeh Ayaz Abbasi, Quaid-i-Azam University, Pakistan

Chapter 7
Semantic Technology for Improved Email Collaboration .............................................................. 121
Simon Scerri, DERI, National University of Ireland, Galway

Section 3
Acquiring, Querying, and Discovering Knowledge from Collaborative and Social Environments

Chapter 8
The Reflexive Practitioner: Knowledge Discovery through Action Research................................ 135
Stephen Dobson, Sheffield Hallam University, UK

Chapter 9
Data Mining, Validation, and Collaborative Knowledge Capture .................................................. 149
Martin Atzmueller, University of Kassel, Germany
Stephanie Beer, University Clinic of Wuerzburg, Germany
Frank Puppe, University of Wuerzburg, Germany

Chapter 10
Hidden Markov Models for Context-Aware Tag Query Prediction in Folksonomies ..................... 168
Chiraz Trabelsi, University Tunis El-Manar, Tunisia
Bilel Moulahi, University Tunis El-Manar, Tunisia
Sadok Ben Yahia, University Tunis El-Manar, Tunisia

Chapter 11
Techniques for Named Entity Recognition: A Survey ................................................................. 191
Girish Keshav Palshikar, Tata Research Development and Design Centre, India
Section 4
Applications

Chapter 12
Ontological Collaboration Engineering ................................................................. 219
   Stefan Werner Knoll, Delft University of Technology, The Netherlands
   Till Plumbaum, Berlin Institute of Technology, Germany
   Ernesto William De Luca, University of Applied Sciences Potsdam, Germany
   Livia Predoiu, University of Magdeburg, Germany

Chapter 13
Developing a Web-Based Cooperative Environment to Software Project Development .............. 246
   Seyed Morteza Babamir, University of Kashan, Iran

Chapter 14
Knowledge Based Business Intelligence for Business User Information Self-Service .................. 271
   Matthias Mertens, OFFIS – Institute for Information Technology, Germany
   Tobias Krahn, OFFIS – Institute for Information Technology, Germany

Chapter 15
Knowledge Worker Performance in a Cross-Industrial Perspective ........................................... 297
   Rainer Erne, Leeds Metropolitan University, UK

Compilation of References ......................................................................................... 322

About the Contributors .......................................................................................... 356

Index ..................................................................................................................... 364