

PREMIER REFERENCE SOURCE

The Semantic Web for Knowledge and Data Management

Technologies and Practices



Zongmin Ma & Huaiqing Wang

Table of Contents

Preface	xi
----------------------	----

Acknowledgment	xvi
-----------------------------	-----

Section I

Chapter I

Contextual Hierarchy Driven Ontology Learning	1
<i>Lobna Karoui, Ecole Supérieure d'Electricité, France</i>	

Chapter II

A Review of Fuzzy Models for the Semantic Web	23
<i>Hailong Wang, Northeastern University, China</i>	
<i>Zongmin Ma, Northeastern University, China</i>	
<i>Li Yan, Northeastern University, China</i>	
<i>Jingwei Cheng, Northeastern University, China</i>	

Chapter III

Improving Storage Concepts for Semantic Models and Ontologies	38
<i>Edgar R. Weippl, Vienna University of Technology, Austria</i>	
<i>Markus D. Klemen, Vienna University of Technology, Austria</i>	
<i>Stefan Raffeiner, Vienna University of Technology, Austria</i>	

Chapter IV

Ontologies and Intelligent Agents: A Powerful Bond	49
<i>Kostas Kolomvatsos, National and Kapodistrian University of Athens, Greece</i>	
<i>Stathes Hadjiefthymiades, National and Kapodistrian University of Athens, Greece</i>	

Chapter V

Probabilistic Models for the Semantic Web: A Survey	74
<i>Livia Predoiu, University of Mannheim, Germany</i>	
<i>Heiner Stuckenschmidt, University of Mannheim, Germany</i>	

Chapter VI

Automatic Semantic Annotation Using Machine Learning	106
--	-----

Jie Tang, Tsinghua University, Beijing, China

Duo Zhang, University of Illinois, Urbana-Champaign, USA

Limin Yao, Tsinghua University, Beijing, China

Yi Li, Tsinghua University, Beijing, China

Section II

Chapter VII

Paving the Way to an Effective and Efficient Retrieval of Data over	
---	--

Semantic Overlay Networks	151
---------------------------------	-----

Federica Mandreoli, University of Modena and Reggio Emilia, Italy

Riccardo Martoglia, University of Modena and Reggio Emilia, Italy

Wilma Penzo, University of Bologna, Italy

Simona Sassatelli, University of Modena and Reggio Emilia, Italy

Giorgio Villani, University of Modena and Reggio Emilia, Italy

Chapter VIII

SWARMS: A Platform for Domain Knowledge Management and Applications	176
---	-----

Jie Tang, Tsinghua University, Beijing, China

Bangyong Liang, NEC Labs, China

Juanzi Li, Tsinghua University, Beijing, China

Chapter IX

Modeling and Querying XML-Based P2P Information Systems:	
--	--

A Semantics-Based Approach	207
----------------------------------	-----

Alfredo Cuzzocrea, University of Calabria, Italy

Section III

Chapter X

Applying Semantic Web to E-Tourism	243
--	-----

Danica Damljanović, University of Sheffield, UK

Vladan Devedžić, University of Belgrade, Serbia

Chapter XI

Semantic Web in Ubiquitous Mobile Communications	266
--	-----

Anna V. Zhdanova, The Telecommunications Research Center Vienna, Austria

Ning Li, University of Surrey, UK

Klaus Moessner, University of Surrey, UK

Chapter XII

Design Diagrams as Ontological Sources: Ontology Extraction and Utilization for Software Asset Reuse	288
---	------------

Kalapriya Kannan, IBM India Research Labs, India

Biplav Srivastava, IBM India Research Labs, India

Compilation of References	316
--	------------

About the Contributors	359
-------------------------------------	------------

Index	365
--------------------	------------