

Contents

Contributors	ix
List of Abbreviations	xiii
Part I Introduction	
1 Introduction to Semantic Multimedia	3
Yiannis Kompatsiaris and Paola Hobson	
Part II Multimedia Ontologies, Analysis and Reasoning – Theory	
2 Multimedia Content Description Using Semantic Web Languages	17
Roberto Garcíá, Chrisa Tsinaraki, Òscar Celma, and Stavros Christodoulakis	
3 Ontology-Based Reasoning Techniques for Multimedia Interpretation and Retrieval	55
Ralf Möller and Bernd Neumann	
4 Introducing Context and Reasoning in Visual Content Analysis: An Ontology-Based Framework	99
Stamatia Dasiopoulou, Carsten Saathoff, Phivos Mylonas, Yannis Avrithis, Yiannis Kompatsiaris, Steffen Staab, and Michael G. Strintzis	
5 Audio Content Analysis	123
Juan José Burred, Martin Haller, Shan Jin, Amjad Samour, and Thomas Sikora	
Part III Applications Using Semantic Web Technologies	
6 Personalised Multimedia Summaries	165
Cathy Dolbear, Paola Hobson, David Vallet, Miriam Fernández, Iván Cantador and Pablo Castells	

7 The Role of Ontologies for 3D Media Applications	185
Michela Spagnuolo and Bianca Falcidieno	
8 The Application of Semantic Web Technologies to Multimedia Data Fusion within eScience	207
Jane Hunter, Suzanne Little, and Ronald Schroeter	
 Part IV Applications Using Alternative Approaches to Multimedia Ontologies	
9 Mind the Gaps – Finding the Appropriate Dimensional Representation for Semantic Retrieval of Multimedia Assets	229
William I. Grosky, Rajeev Agrawal, and Farshad Fotouhi	
10 Filling the Semantic Gap in Video Retrieval: An Exploration	253
Alexander Hauptmann, Rong Yan, Wei-Hao Lin, Michael Christel and Howard Wactlar	
 Part V Conclusion	
11 Conclusions Relating to Semantic Multimedia and Ontologies	281
Yiannis Kompatsiaris and Paola Hobson	
Web Resources	285
Index	287

Semantic Multimedia and Ontologies

Theory and Applications

Kompatsiaris, Y.; Hobson, P. (Eds.)

2008, XVI, 290 p., Hardcover

ISBN: 978-1-84800-075-9