

Contents

<i>Preface</i>	ix
Patrick Hayes On being the same: keynote address	1
<i>1. The role of classification and ontology on the Web</i>	
Dan Brickley Classification, collaboration and the Web of data	3
Guus Schreiber Issues in publishing and aligning Web vocabularies	5
Thomas Baker The concepts of knowledge organization systems as hubs in the Web of data	7
<i>2. Classifications and ontologies on their own terms</i>	
Barbara H. Kwaśnik Approaches to providing context in knowledge representation structures	9
Richard Smiraglia; Charles van den Heuvel; Thomas M. Dousa Interactions between elementary structures in universes of knowledge	25
Emad Khazraee; Xia Lin Demystifying ontology	41
<i>3. Classification meets the Web</i>	
Daniel Kless; Jutta Lindenthal; Simon Milton; Edmund Kazmierczak Interoperability of knowledge organization systems with and through ontologies	55

Vincenzo Maltese; Feroz Farazi Towards the integration of knowledge organization systems with the linked data cloud	75
Maria R��ther; Joachim Fock; Thomas Schultz-Krutisch; Thomas Bandholtz Classification and reference vocabulary in linked environment data	91
<i>4. Classification and ontology in specific subjects</i>	
Andrew Buxton Ontologies and classification of chemicals: can they help each other?	109
Wolfram Sperber; Patrick D. F. Ion Content analysis and classification in mathematics	129
<i>5. Categories and relations: key elements of ontologies</i>	
Roberto Poli Ontology as categorial analysis	145
Dagobert Soergel Towards a relation ontology for the Semantic Web	159
Rebecca Green; Michael Panzer Relations in the notational hierarchy of the Dewey Decimal Classification	161
<i>6. Modelling concepts and structures in analytico-synthetic classifications</i>	
Ingetraut Dahlberg A faceted classification of general concepts	177
Claudio Gnoli; Philippe Cousson; Tom Pullman; Gabriele Merli; Rick Szostak Representing the structural elements of a freely faceted classification	193
Vanda Broughton Facet analysis as a tool for modelling subject domains and terminologies	207

Devika P. Madalli; A. R. D. Prasad Analytico synthetic approach for handling knowledge diversity in media content analysis	229
<i>7. Transforming and extending classification systems</i>	
Joan S. Mitchell; Marcia Lei Zeng; Maja Žumer Extending models for controlled vocabularies to classification systems: modelling DDC with FRSAD	241
Fran Alexander; Andy Heather Transformation of a legacy UDC-based classification system: exploiting and remodelling semantic relationships	251
<i>Posters - Short papers</i>	
Andrea Scharnhorst; Almila Akdag Salah; Krzysztof Suchecki; Cheng Gao; Richard P. Smiraglia The evolution of knowledge, and its representation in classification systems	269
Charles van den Heuvel; Almila Akdag Salah; Knowledge Space Lab Visualizing universes of knowledge: designs and visual analysis of the UDC	283
Ricardo Eito-Brun; Alfredo Calosci UDC as a knowledge framework for building a civil engineering ontology: a practical approach to knowledge representation and visualization	295
<i>List of contributors</i>	307
<i>Subject index</i>	309