Introduction

The 10th volume of the German series ‘Forschritte der Wissensorganisation’ (Advances in Knowledge Organization) with the title ‘Compatibility, Media and Ethics in Knowledge Organization (Kompatibilität, Medien und Ethik in der Wissensorganisation)’ consists of papers presented at the 10th German ISKO conference on Knowledge Organisation (Wissensorganisation 2006). As it was held 2006 in Vienna in conjunction with the 9th International ISKO conference (organized by the Centre for Translation Studies and the Institute for Educational Sciences), it contains many contributions in English as well as a number of supplementary publications of the International Conference. This explains why the Introduction and the Subject Index are in English. Also, every essay contains at least an English abstract. We would like to thank all the authors for submitting their elaborated papers. The 31 articles in this volume were assigned to seven chapters, which are described briefly below.

1. Principles of Knowledge Organization
   Gerhard Rahmstorf gives a determining position for the scientific understanding in the area of knowledge organization. Christine Rabl explores the relevance of ignorance (e.g. ‘not knowing yet’ and ‘impossibility of knowing’) within knowledge organisation. Rosa San Segundo Manuel looks into the limitations of traditional classification structures and opens the subject up for a non-linear general theory of knowledge classification. Mikel Breitenstein discusses social indexing approaches that include user-based information. Fulvio Mazzocchi and Paolo Plini present the EARTh (Environmental Applications Reference Thesaurus) as a case study for developing “richer” relational structures in thesauri. Referring to a 1995 ISKO-conference in Warsaw, Ingetraut Dahlberg describes recommendations for the compatibility and integration of different thesauri.

2. Compatibility and Heterogeneity of Knowledge
   Harm Paschen gives some examples of former comprehensions of knowledge and its social and historical interdependence, which is helpful for modern tasks of knowledge integration. Michael Panzer gives a theoretical insight into the CrissCross project, in which the German Dewey-Dezimalklassifikation was connected with the Schlagwortnormdatei (SWD, German authority file for subject headings). Max Stempfhuber emphasizes the necessity to deal with heterogeneity instead of universal standardizations. Anne-Kathrin Walter and Philipp Mayer provide a short insight into the cross-concordances project “Competence Center Modeling and Treatment of Semantic Heterogeneity” (KoMoHe). Francisco Javier García Marco follows with a case study in compatibility and heterogeneity in the field of information for consumer protection. Maja Žumer and Genevieve Clavel-Merrin present the results of a questionnaire for the national libraries of the ten new member states of the European Union, enabling the TEL-ME-MOR project to get an overview of subject access tools and their practice.

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3. **Ontologies in Knowledge Organization**

The third chapter is based on a workshop on ontologies. In the first article, *Winfried Schmitz-Esser* deals with the term ‘ontologies’, discussing what they are about and how they could provide help, including a brief summary of the statements of *Alexander Sigel*, whose article can be found in a different publication. In the following paper, *Winfried Schmitz-Esser* gives examples of terminology-based knowledge using language ontologies independently from certain languages. *Roberto Poli* concludes with a discussion about upper ontologies and a general theory of the relations needed by concrete applications.

4. **Knowledge Management and Knowledge Access**

*Kerstin Zimmermann* deals with the main issues of an ontology creation process in the field of Information and Communication Technologies. As regards the Vienna talk of *Edgar Schiebel* on Knowledge Flows in Organizations, we have to refer to a talk by him and others in a different publication. *Jürgen Sieglerschmidt* points out different knowledge creation processes in the field of portals for cultural heritage, problems which might arise when interlinking these knowledge styles, as well as opening new possibilities in user accessibility. *Cornelia Dippold* gives a short overview of a project of the “The Research Data Centre of the German Statutory Pension Insurance (FDZ-RV)”, discussing problems of data and retrieval as well as the metadata schema. *H. Peter Ohly* sketches Bibliometric Mining as a methodology which adds an evaluative approach to the statistical analyses by applying inference procedures as well as navigation tools.

5. **Media in Knowledge Transmission**

In order to reflect the new media in social practice, *Sabrina Schrammel* defines the category ‘space’ as a basis for examining a modified pedagogical practice. *Konstantin Mitgutsch* reconsidered the role of irritations and the incompatibility of facts, experiences and thoughts for knowledge organization. *Sylvana Kroop* discusses three fundamental encyclopaedias of the 18th and 19th century and their structure of knowledge, comparing them with networks, like Memex of Vannevar Bush.

6. **Future of Knowledge Organization**

This chapter contains statements made at a panel discussion on the future of knowledge organization. *H. Peter Ohly* extracts general historical patterns in the development of knowledge techniques. The statement of *Gerhard Budin* concerning the inter-dependency between knowledge and philosophy of science is only available in a former publication. *Winfried Schmitz-Esser* states the importance of traditional libraries today and demands more user orientation. *Michael Nentwich* deals with the

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main trend in technology-based knowledge that gives new meaning to scientific information exchange. Gerhard Rahmstorf presents an essay on the relevance of language for knowledge organization and the future possibilities by using new media.

7. Ethics in Knowledge Organization
This last chapter includes talks that were understood as a preparation to install a special working group on ethical guidelines in knowledge organization. Martin van der Walt discusses the necessity of an ethnic guideline for knowledge organization and, if any, which ethnical norms are basic for this subject. Erwin Lengauer explores the vast amount of possible values and normative assumptions. The aspect of privacy and law is taken in account by Michael Nagenborg, who discusses information ethics and some issues of relevance for knowledge organization. Karsten Weber presents a short overview of the ethic guidelines of the German “Gesellschaft für Informatik” and “IEEE-CS Software Engineering Code of Ethics and Professional Practice” concerning the specific problems of knowledge organization. Michael Nentwich introduces into a project of a novel base for juridical knowledge in the world wide web.

December 2007

H. Peter Ohly, Bonn
Sebastian Netscher, Köln
Konstantin Mitgutsch, Wien
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Ohly/Netscher/Mitschgut: Compatibility, Media and Ethics in Knowledge Organization. Würzburg: Ergon Verlag 2008
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