Proceedings of the 4th ASIS SIG/CR Classification Research Workshop

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Preface

General Comments

These *Proceedings* are a working copy of the papers presented at the 4th ASIS SIG/CR Workshop on Classification Research, held in Columbus, OH at the ASIS Annual Meeting on Sunday, October 24th, 1993. As working papers, their purpose is to provide participants with a chance to review the contributions during and after the Workshop. As such, the papers are not in their final versions, and after the Workshop, authors will have the opportunity to revise and edit their papers. After revisions, the *Proceedings* will be published as an ASIS monograph by Learned Information, Inc., under the title *Advances in Classification Research*. Vol.4, and will be available for purchase in 1994.

From the start, the aim of the Workshop has been to gather together researchers and practitioners from a broad range of disciplines and areas of application in order to exchange ideas, discuss dilemmas, and share approaches to classification research. Each year this goal has been achieved beyond our expectations, and we have been gratified to receive submissions from participants who would not have normally had the opportunity to meet. This year, our fourth, continues this tradition, and as we step back to survey the excellent contributions, we see once again how farreaching classification issues have become and how great a diversity of fields now see classification research as central to progress in their areas: "virtual" libraries, all computer fields, information retrieval, terminology, work with children, and so on.

We also note the eagerness with which authors asked for input from others and for clarification of their own research from others' perspective. The authors have been asked to write for a broad audience — possibly an audience unfamiliar with the terminology and special concerns of the author's own field — and yet, authors have more than graciously taken great pains to edit their work accordingly and have answered numerous editorial questions. We see this as additional evidence of the need for scholarly communication across disciplines, especially in areas such as classification research.

The papers in this volume follow several themes:

- Several papers deal with methods for creating and exploiting classification structures, especially multi-dimensional and multi-hierarchical structures. One paper focuses on the question of what are the organizing principles that constrain category structure by looking at the functional relationship between communication, cognition and representation of categories.
- Another theme deals with using classification for designing retrieval tools and for the elicitation and representation of knowledge. Topics include reasoning with classification, query reformulation techniques using classification, and the use of classification principles to simplify conceptual graphs.
- Yet another group of papers deals with the broad area of concept representation and the design of tools for a variety of settings to help information seekers explore such representations. Papers in this group deal with a conceptually designed thesaurus of terms in music, intellectual access to the "virtual" library, warrant for concepts in classification schemes, the indexing of software, the use of conceptual

graphs for concept and concept relationship representation, and the study of visual displays to support tools that "abstract and present the semantic structure of the underlying information."

As we mentioned earlier, the scope and diversity of these papers is impressive, and yet these themes seem to weave back and forth, suggesting to us that the underlying issues in classification research are at the core of a number of areas. We still need a great deal of theory-building — or borrowing — however. The emphasis in most of the papers is on systems new and old and on practice, not on finding a unified basis for all knowledge representation. These workshops, we hope, serve as stimuli to the building of such explanatory frameworks.

Organization of These Proceedings

The papers presented at the Workshop are arranged in alphabetical order by the last name of the first author.

Acknowledgments

We would like to thank all the participants for their submissions and especially for their patience in dealing with our suggestions. We also wish to thank ASIS officials and staff, who have unflattering supported and subsidized this Workshop and the *Proceedings*. Our Schools, the Department of Industrial and Systems Engineering at The Ohio State University, the Faculty of Library and Information Science at the University of Toronto, the Graduate School of Library and Information Science at the University of Washington, the School of Information Studies at Syracuse University, all have also facilitated our efforts at organizing this Workshop.

PJS, CB, RF, & BHK

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iv

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Table of Contents

Preface	iii
PRESENTED PAPERS	
Supporting a Multi-hierarchical Classification in the Object-Oriented Paradigm Jemal H. Abawajy and Michael A. Shepherd	n 1
Reasoning with Classification in Interactive Knowledge Elicitation Esma Aïmeur and Jean Gabriel Ganascia	19
Multidimensional Classification of Concepts for Terminological Purposes Lynne Bowker	39
Warrant for Concepts in Classification Schemes Pauline Cochrane	57
Brief Overview of T-TREE: The TROPES Taxonomy Building Tool Jérôme Euzenat	69
Isolating and Reorganizing Core Vocabulary from Library of Congress Music Headings for Use in the Music Thesaurus Harriette Hemmasi, Fred Rowley, and James D. Anderson	89
Communication and Category Structure: The Communicative Process as a Constraint on the Semantic Representation of Information Elin K. Jacob	103
Boolean Query Reformulation with the Query Tree Classifier Nam-Ho Kim, James C. French and Donald E. Brown	123
Programming Knowledge: On Indexing Software for Reuse and not Indexing Documentation at All Ira Kleinberg	139
Category-Based and Association-Based Map Displays by Human Subjects Xia Lin, Gary Marchionini, and Dagobert Soergel	147
The Classification of Structured Knowledge Objects Guy W. Mineau	165
Developing Intellectual Access and Control Mechanisms for Discipline-Based Virtual Libraries that Feature Media Integration Lei Zeng, D. Kaye Gapen, and Sharon Schmitt	179

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vi