
Knowledge Organization Systems (KOS) are often developed in specialized fields such as medicine, chemistry, law and geography. In geography, for example, there is a specialized literature about *Geographical Information Science,* just as *Geographical Information Systems* (GIS) are becoming important kinds of knowledge organizing systems. Research in Knowledge Organization (KO) should contribute to the organization of knowledge in such fields. If not, this would be an indication of a serious problem in our field. The overall impression is, unfortunately, that such specialized fields develop rather independently from developments in our community of KO—and that general KO and specialized fields of KO are relatively isolated from one another.

What general principles, concepts and methods of KO should be developed by our field in order to be useful to specific kinds of applications? Theories of concepts and semantics should clearly form an important part of such knowledge. (This is indicated by the subtitle of this journal: *Knowledge Organization: Devoted to Concept Theory, Classification, Indexing and Knowledge Representation.* Thus far, however, “concept theory” seems to have been neglected.) The book under review can be seen as an attempt to provide such knowledge and to apply it to Geographical Information Systems. Somewhat paradoxically, however, this book is not that much about geographical concepts. This becomes clear if compared with, for example, Holloway et al. (2003). It is more about general ontology, semantics, concepts, interoperability and knowledge representation theory (although mostly related to geography). This makes the book relevant for our community as a statement about what topics KO should be engaged in.

The Book is organized the following way:

**Part 1: The Context**
- Chapter 1: The Context
- Chapter 2: Geographic Ontologies
- Chapter 3: Semantic Interoperability

**Part 2: Theoretical Foundations**
- Chapter 4: Ontologies
- Chapter 5: Concepts
- Chapter 6: Semantics

**Part 3: Formal Approaches**
- Chapter 7: Knowledge Representation Instruments
- Chapter 8: Formal Concept Analysis
- Chapter 9: Conceptual Graphs
- Chapter 10: Channel Theory
- Chapter 11: Description Logics
- Chapter 12: Natural Language and Semantic Information Extraction
- Chapter 13: Similarity

**Part 4: Ontology Integration**
- Chapter 14: Integration Framework
- Chapter 15: Integration Approaches
- Chapter 16: Integration Guidelines

**Part 5: Post-Review**
- Chapter 17: Epilogue

The book does a fine job in summarizing mainstream research in all these fields and as such, it offers a valuable overview of a very big amount of literature. However, I believe this mainstream research is currently on a problematic track, and in many places the authors express discomfort about the state of the field.

This book has neglected the theories that I consider most promising. Moreover, the book is not really about theories of geographical concepts as the title states. It fails to consider specific concepts and their associated theories. If this had been done, quite different perspectives would have been revealed.

Holloway et al. (2003/2008) is by contrast really about geographical concepts and their associated theories. The same can be said about Huber et al. (1988) covering physical geography and Larkin & Peters (1983) covering human geography. Huber et al. (1988) is described by an editorial review: “[T]his book in-
cludes a variety of analyses reaching back to origins or terms, making the work of interest to intellectual historians. The search for the intellectual genesis of each term, its development, usage, and change in meaning is accomplished with brevity and clarity.” These books are parts of the series Reference Sources for the Social Sciences and Humanities edited by Raymond G. McInnis, who has written an article on concept theory, which supports the way this series has been designed. McInnis writes (1995, 35–36):

In scholarly disciplines, concepts, the building blocks of knowledge, are basic to enquiry and explanation. Scholars present their research findings in scholarly publications as explanations. These explanations, in turn, organize knowledge. And the principles and theories which emerge from this organization of knowledge are called concepts.

We are indebted to Paul Thagard [1992] for a succinct account of the shifting concept of the concept of the period from Descartes through Hobbes, Locke, Hume, Kant, to Hegel. To understand scholarly progress, he argues, we need an account of how concepts can change. For Thagard, Hegel should be recognized as the founder of the study of conceptual change. Whereas Kant and the earlier empirists tried to find a foundation for knowledge using both empirist and rationalist ideas, Hegel stressed the importance of conceptual development.

My point is as follows: There are different theories of concepts (as described by Kavouras & Kokla 2007). Such theories must have different implications for designing KOS, whether we speak of ontologies, dictionaries or something else. (If the implications are one and the same, then the theories are not relevant for our purpose, which is to guide in the construction and evaluation of KOS.) Although the book under review does present and discuss different theories of concepts, they are not related however to the analysis of specific concepts as in the mentioned dictionaries. Furthermore, the different implications for designing KOS are not discussed. Kavouras & Kokla (2007) contains a chapter about formal concept analysis. I cannot imagine how a dictionary such as Huber et al. (1988) would have looked like if its design had been governed by formal concept analysis. (And this is not just the case with dictionaries but also with ontologies and other kinds of KOS).

In my opinion, the design of KOS must be developed from the literature and concepts in the domain (here, geography). It should be acknowledged that different views or voices are competing in each field (see Holt-Jensen 1999, about competing approaches in geography). The designer of a KOS is thus involved in negotiating between views. To believe that there is only one view, and that the designer can reflect the objective reality without considering the different voices—and without negotiating different interests—is, in my opinion, an unfruitful view.

Among the views that have been ignored by Kavouras & Kokla (2007) are critical approaches to Geographical Information Systems (see, for example, Sheppard 2001 and Schuurman 2006). The word “critical” may have a negative echo, but in reality it provides a better theoretical foundation for establishing a constructive basis for information systems.

Theories of Geographic Concepts offers, despite such omissions, a rich and valuable overview of a complicated field. The different perspectives it presents are views and concepts that are at the centre of attention in contemporary research. Our field of KO cannot afford to ignore this literature and it is important that we come in closer contact with specific domains, including geography. This book should therefore be included in libraries and collections serving research and teaching in Knowledge Organization.

References


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*User’s Guide to Sears List of Subject Headings* reminds me of my library science classes where the tutors struggled to teach subject headings as they did not have any companion to the *Sears List of Subject Headings*. The best available resource was the manual itself. Tutors and learners can now get respite as a help book produced by two veterans in the field, Satija and Haynes, is readily available. To my knowledge, this eagerly awaited text of 143 pages is the first practice book on the *Sears List of Subject Headings* I’ve come across.

The subject approach to documents is a key area in the knowledge organization aspect of librarianship. Effective subject headings are needed for adequate search. The *Sears List* is a very well-known subject headings list and is used all over the world in small and medium sized libraries. Tutors in library schools often make it their first choice. Although some book chapters mention the *Sears List*, there is no complete book on usage. The *User’s Guide* attempts to educate practitioners on its role, introducing them to a variety of uses, contexts, and offering a wide range of examples. It aims to compensate for the lack of a much needed workbook on the *Sears List*. The authors describe it as a “companion book” (p. vii).

The work is organized into twelve chapters. Chapter 1, “History and Chronology of the Sears List of Subject Headings”, serves as an introduction and presents a brief history of the various editions of the *Sears List*, accounting for its popularity.

Chapter 2, “Structure of the Sears List”, elaborates on the design of the *Sears List*, offering interesting insight to the trainers of subject cataloging and subject analysis. In chapter 3, “Subject Analysis”, readers will find very important tutorial principles on the topic. It also tells how fanciful and vague book titles often baffle the subject cataloger. The chapter finally deals with the general procedure of assigning the correct heading.

The next chapter, “Principles of the Sears List”, discusses the theoretical basis and main features on which the *Sears List* was founded, including the principle of uniformity and the semantic constructions of the headings (e.g., single-noun headings, synonyms and phrase headings).

Following chapters include “Key Headings” (i.e., “model headings that provide a clear and ready-made pattern to construct similar subject headings in that area” (p. 43)), “Headings Omitted in the Sears List”, and “Subdivisions”. The authors provide long lists of examples including Key Headings of different categories (person, wars and battles…).

Chapter 8, “Cross-references”, demonstrates how cross-references (see, see also) are constructed. Chapter 9, “Geographical Headings and Subdivisions”, deals with geographical headings, namely headings for cities and towns. In chapter 10, “Subject Headings for Language and Linguistics”, the authors provide us with a wide array of examples from Spanish, Sanskrit, Arabic, Korean and French languages, for example “A handbook on the use of foreign words in Hindi: Hindi language—Foreign words and phrases—Handbooks, manuals, etc.” (p. 104). Chapter 11, “Subject Headings for Literature and Literary Works”, covers criticism and portrayal of individual literary authors and also the subject headings for a individual works. The last chapter, “Subject Headings for Biographies and Autobiographies”, offers information on headings for individual biographies, collective biographies as well as subdivisions related to biographical work: anecdotes, case studies, chronology, correspondence, etc.

The *User’s Guide* will undoubtedly be of great help to practitioners and tutors, as each chapter includes a summary and exercises. The purpose suggested by the title is fulfilled, serving as a companion to the 19th edition of the *Sears List*. It is designed as a manual for beginners who will realize the importance of vocabulary control and subject analysis, and start to comprehend the structure and organization of the *Sears List* as well as the methods and techniques to locate, specify, and construct subject headings.
The book, however, lacks a good number of examples for practice. The emphasis seems to have been put more on the theoretical than the practical aspects. Despite this criticism, I unreservedly value the authors’ efforts. At the same time, I can’t help but wonder if the book will have wide access as the place of publication, the cost and the availability will especially affect the users in developing countries.

The User’s Guide will be a valuable tool to technical services librarians, subject catalogers, students and teachers of library and information science. It is intended for college and university libraries in general, but more particularly for library schools. The authors produced a work of high quality that stands out in its category.

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M.P. Satija, professor at Guru Nadav Dek University (India), is well known to Knowledge Organization readers, classification instructors and specialists of the Dewey Decimal Classification (DDC). He co-authored the 1987 Introduction to the Practice of Dewey Decimal Classification, collaborated with Lois Mai Chan and the late John P. Comaromi in the preparation of the Dewey Decimal Classification: A Practical Guide, and prepared the Exercises in the 21st Edition of the DDC as well as the Exercises in the 22nd Edition of the DDC.

Satija’s new contribution to the theory and practice of the DDC is intended for students and working librarians. His text emphasizes both number location through the schedules and number-building with auxiliary tables. This double emphasis, asserts Satija, can be explained by the fact that DDC remains primarily an enumerative classification scheme, even while becoming increasingly synthetic with each new edition (“Preface,” p. xi).

Professor Satija strives to introduce and to illustrate all issues and methods involved in using the DDC in a methodical and simple way (p. xii). He succeeds in reaching his goal, but sometimes at the expense of the reader’s ease in following the author in all the rules, special cases and exceptions that are explained or often simply presented in the form of examples.

The textbook is divided in three sections: 1. History (Chapters 1–2), 2. Introduction and Foundations (Chapters 3–4), and 3. Application (Chapters 5–14). Throughout the document, references are made to the print version of the 22nd edition, published in four volumes by OCLC in 2003.

Chapter 1 presents a brief history of the DDC. It is accomplished and informative, with appropriate emphasis given to a few significant events, such as the publication in 1958 of the 16th edition, which marked the beginning of a second life for the DDC (p. 6). Two useful tables are provided. Table 1 presents all editions of the DDC, with the date of publication, the total number of pages, the number of copies printed and the editor for each. A similar table presents the fourteen Abridged editions. Chapter 1 closes on a description of alternate versions/editions of the DDC. Surprisingly, nothing is said about the various language versions of a classification system that exists in more than 30 languages (http://www.oclc.org/us/en/dewey/about/translations/default.htm). Chapter 2, “Governance and Revision”, fully elucidates the critical process of revising and updating the scheme.

In chapters 3 and 4, readers are introduced to the foundations and basic structure of the DDC. While chapter 3 offers a very detailed presentation of the four-volume print version of the 22nd edition, the following chapter, “Basic Plan and Structure”, provides basic information about the system, assuming that the reader knows very little about it. Several references to facet theory and its application to the DDC are made—an appropriate reminder of Satija’s extended knowledge of Ranganathan’s work and the Colon Classification.

Chapters 5 to 7 are short but offer adequate introductions to the functions of subject analysis, location of class numbers, as well as application of tables and rules of precedence. Paragraphs are clearly identified, with significant and useful section titles. At this point, the reader—particularly the student—begins to perceive more clearly the complexity of the system. Starting in Chapter 6, numerous examples are provided to illustrate the various rules.

Satija devotes separate chapters to Tables 1, 2, 3, and 5, while Tables 4 and 6 are covered in a single
chapter. An introduction to each table emphasizes the changes that have occurred in the latest edition. Here again, many examples are provided. But as some sections are entirely made up of examples, without any introductory or concluding text and with a minimal explanation (e.g. pages 104, 106, 125, 136–144), readers are forced to figure out for themselves the exact way of reading or explaining the problem or the rule. Furthermore, references made to the volumes and the page numbers of the previous edition are useful only if one works with the original print version of the 22nd edition. At times, only a page number is supplied. On page 89, for example, one reads: “A brief paragraph of instructions (p. 215) precedes the enumeration of area number”—the reader must deduce that the page number refers to Volume 1.

Chapter 13 explains the complex process of multiple synthesis. If the examples provided appear useful at first, the explanations become at one point somewhat sketchy and increasingly difficult to follow. Novice users will undoubtedly have trouble with this one. Conversely, Chapter 14, “Using the Relative Index”, offers a clear and detailed description of this searching tool.

There is no concluding chapter with reference to future applications of the DDC. The appendices include a chronology of the DDC, a table of DDC editors, and a review tutorial with answers. However, the sixty questions only cover the history and foundations of the system. No practical exercises have been provided. Furthermore, only thirty-two terms are defined in the glossary. For further information on the DDC, a select bibliography lists 150 sources, mostly print documents. The short index is accurate and useful.

The document has been carefully prepared and edited. The information is presented in a sober but efficient manner. Relevant sources are suggested at the end of each chapter. There are very few typographical errors, but some mistakes should have been caught in the bibliography. For example, one reads Library Research & Techniques where he or she should read Library Resources & Technical Services. A few references also appear twice, the author’s name having been entered a first time under the surname and a second time under the first name. For example, Andrzej, D. and Durlík, A. are one and the same. The journal Libraries and Culture also appears under the title Librarian and Culture. The correct form of the author’s name is the second one; the correct form of the journal’s title is the first one.

M.P. Satija’s latest contribution to the small bank of textbooks available to classification instructors and learners is, without doubt, a good one. However, some parts of the document are not accessible to novices. These sections are too technical, stressing on the rare exceptions to the common rules of class number identification and building. It at times appears as if the author has reviewed each and every class number provided in the schedules! In this respect, the recently published Essential Dewey by John Bowman can be considered more accessible to true beginners.

Very few references are made to WebDewey and to the increasing flexibility and usefulness of the electronic version of the classification. One can’t help but wonder how and why the choice was made to present the DDC not as a system, but rather in reference to the four printed volumes only, and this without any discussion pertaining to its physical presentation.

References


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