

# Knowledge Organization

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Devoted to Concept Theory,  
Classification, Indexing, and  
Knowledge Representation



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# KNOWLEDGE ORGANIZATION

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Official Quarterly Journal of the International Society for Knowledge Organization ISSN 0943 - 7444  
 International Journal devoted to Concept Theory, Classification, Indexing and Knowledge Representation

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## Contents page

Fugmann, R. (1997). Bridging the Gap between Database Indexing and Book Indexing.

*Knowledge Organization*, 24(4), 205-212. 15 refs.

**ABSTRACT:** Traditionally, *database indexing* and *book indexing* have been looked upon as being quite distinct and have been kept apart in textbooks and teaching. The traditional borderline between both variations of indexing, however, should not conceal fundamental commonalities of the two approaches. For example, *thesaurus construction and usage*, quite common in databases, has hardly been encountered in book indexing so far. Database indexing, on the other hand, has hardly made use of *subheadings* of the syntax-displaying type, quite common in book indexing. Most database users also prefer *precombining vocabulary units* and reject *concept analysis*. However, insisting on precombining descriptors in a *large database vocabulary* may, in the long run, well be destructive to the quality of indexing and of the searches. A *complementary approach* is conceivable which provides both precombinations and analyzed subjects, both index language syntax and subheadings, and provides access to an information system via precombinations, without jeopardizing the manageability of the vocabulary. Such an approach causes considerable costs in input because it involves a great deal of intellectual work. On the other hand, much time and costs will be saved in the use of the system. In addition, such an approach would endow an information system with survival power. (Author)

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Maniez, J. (1997). Database Merging and the Compatibility of Indexing Languages.

*Knowledge Organization*, 24(4), 213-224, 10 refs

**ABSTRACT:** Compatibility is the paradise lost of information scientists, the dream of a universal communication between information languages. Paradoxically the information languages increase the difficulties of cooperation between the different information databases. This noxious side-effect has become flagrant for the latest decade since the shared cataloguing and the telecharging facilities have increased the exchanges. After defining the notion of information compatibility, the author shows that it meets the same care of semantic coherence as the information languages them-

selves. Then, relying on the lessons of linguistics and automatic translating, he describes two types of viable solutions: the harmonization of several information languages (an uneasy and costly processing); and the automatic harmonization of the indexing formulas through prefabricated concordance tables, an easier solution which can however be hampered by structural discrepancies. Last he sketches a critical view of the concept of switching language. (Author)

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Veltman, Kim H., (1997), Frontiers in Conceptual Navigation.

*Knowledge Organization*, 24(4), 225-245. 43 refs.

**ABSTRACT :** Recent advances in technology assume a separation of content and presentation with respect to data structures. In terms of access, however, there are important reasons for relating content and presentation (different views, perspectives). The paper outlines some fundamental concepts underlying a prototype for a System for Universal Media Searching (SUMS), namely, learning filters, and knowledge contexts, levels of knowledge, questions as strategy: purpose as orientation; media choices, quality, quantity, questions, space using maps and projections; multi-temporal views and integrating tools. It foresees how such a system, linked with the equivalent of a digital reference room, will provide the basis for a System for Universal Multimedia Access (SUMMA). The latter part of the paper addresses recent developments in three-dimensional interfaces. It claims that these are particularly suited for certain tasks such as visualising connections in conceptual spaces; seeing invisible differences as well as comprehension and prediction by seeing absence. It suggests also some ways in which two- and three-dimensional interfaces can be used in complementary ways. (This paper was prepared for a lecture at a recent meeting of the German Chapter of ISKO devoted to *Wissensorganisation mit Multimedialen Techniken [Knowledge Organization with Multimedia Techniques]*, (Berlin, October 1997), the proceedings of which will contain an abridged version.) (Author)

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## KNOWLEDGE ORGANIZATION

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*Manuscripts* should be submitted in English only to the editor-in-chief in two double-spaced copies and should be accompanied by an indicative abstract of 100 to 200 words. After manuscripts are accepted for publication in *Knowledge Organization*, they must be provided on a 3.5" diskette encoded in Word, WordPerfect, or ASCII text. Our preference is Word 6.0 (or later). Diskettes should not be sent until requested by the editor.

*Criteria for acceptance* will be appropriateness to the field of the journal (see Scope and Aims), taking into account the merit of the contents and presentation. The manuscript should be concise and should conform to professional standards of English usage and grammar. Manuscripts are received with the understanding that they have not been previously published, are not being submitted for publication elsewhere, and that if the work received official sponsorship, it has been duly released for publication. Submissions are refereed, and authors will usually be notified within 6 to 10 weeks. Unless specifically requested, manuscripts and illustrations will not be returned.

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*Reference citations within the text* should have the following form: (author, year). For example, (Jones, 1990). Specific page numbers are optional e.g. (Jones, 1990, p.100). A citation with two authors would read (Jones & Smith, 1990); three or more authors would be: (Jones et al., 1990). When the author is mentioned in the text, only the date and optional page number should appear in parenthesis – e.g. According to Jones (1990), ...

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Graesser, A., Person, N. & Huber, J. (1992). Mechanisms that generate questions. In T. W. Lauer, E. Peacock, & A. C. Graesser (Eds.). *Questions and Information Systems*. Hillsdale, NJ: Lawrence Erlbaum Associates. 167-187.

Sager, J.C. (1990). *A Practical Course in Terminology Processing*. Amsterdam: John Benjamins.

Sukiasyan, E. R. (1996). Change as a problem of classification system development. In R. Green (Ed.). *Knowledge Organization and Change: Proceedings of the 4<sup>th</sup> International ISKO Conference*. Frankfurt: Indeks Verlag. 119-122.

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## Scope

The more scientific data are generated in the impetuous present times, the more ordering energy needs to be expended to control these data in a retrievable fashion. With the abundance of knowledge now available the questions of new solutions to the ordering problem and thus of improved classification systems, methods and procedures have acquired unforeseen significance. For many years now they have been in the focus of interest of information scientists the world over.

Until recently, the special literature relevant to classification was published in piecemeal fashion, scattered over the numerous technical journals serving the experts of the various fields such as

philosophy and science of science  
science policy and science organization  
mathematics, statistics and computer science  
library and information science  
archivistics and museology  
journalism and communication science  
industrial products and commodity science  
terminology, lexicography and linguistics

Beginning 1974, KNOWLEDGE ORGANIZATION (formerly INTERNATIONAL CLASSIFICATION) has been serving as a common platform for the discussion of both theoretical background questions and practical application problems in many areas of concern. In each issue experts from many countries comment on questions of an adequate structuring and construction of ordering systems and on the problems of their use in opening the information contents of new literature, of data collections and survey, of tabular works and of other objects of scientific interest. Their contributions have been concerned with

- (1) clarifying the theoretical foundations (general ordering theory/science theoretical bases of classification, data analysis and reduction)
- (2) describing practical operations connected with indexing/ classification, as well as applications of classification systems and thesauri, manual and machine indexing
- (3) tracing the history of classification knowledge and methodology
- (4) discussing questions of education and training in classification
- (5) concerning themselves with the problems of terminology in general and with respect to special fields.

## Aims

Thus, KNOWLEDGE ORGANIZATION is meant to be a programme for the improvement of classification methods and processes, a forum for discussion for all those interested in the organization of knowledge on a universal or a subject-field scale, using concept-analytical and/or concept-synthetic approaches as well as numerical procedures and comprising also the intellectual and automatic compilation and use of classification systems and thesauri in all fields of knowledge, with special attention being given to the problems of terminology.

KNOWLEDGE ORGANIZATION publishes original articles, reports on conferences and similar communications, the Newsletters of the International Society for Knowledge Organization (ISKO News) and the Committee on Classification Research of the International Federation for Information and Documentation (FID/CR News) as well as book reviews, letters to the editor, and an extensive annotated bibliography of recent classification and indexing literature, covering some 500 items in each issue.

KNOWLEDGE ORGANIZATION should therefore be available at every university and research library of every country, at every information center, at colleges and schools of library and information science, in the hands of everybody interested in the fields mentioned above and thus also at every office for updating information on any topic related to the problems of order in our information-flooded times.

KNOWLEDGE ORGANIZATION was founded in 1973 by an international group of scholars with a consulting board of editors representing the world's regions, the special classification fields, and the subject areas involved. From 1974-1980 it was published by K.G. Saur Verlag, München. Back issues of 1978-1992 are available from ERGON-Verlag, too. (The 14 volumes of 1978-1992 are offered now at the highly reduced price of DM 200,-)

As of 1989, KNOWLEDGE ORGANIZATION has become the official organ of the INTERNATIONAL SOCIETY FOR KNOWLEDGE ORGANIZATION (ISKO) and is included for every ISKO-member, personal or institutional in the membership fee (US \$ 50/US \$ 100).

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