

# Knowledge Organization

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# KNOWLEDGE ORGANIZATION

# KO

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International Journal devoted to Concept Theory, Classification, Indexing and Knowledge Representation

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## Contents page

Claudio Gnoli. **Phylogenetic classification.** *Knowledge Organization*, 33(3) 138-152. 83 references.

**ABSTRACT:** One general principle in the construction of classification schemes is that of grouping phenomena to be classified according to their shared origin in evolution or history (*phylogenesis*). In general schemes, this idea has been applied by several classificationists in identifying a series of integrative levels, each originated from the previous ones, and using them as the main classes. In special schemes, common origin is a key principle in many domains: examples are given from the classification of climates, of organisms, and of musical instruments. Experience from these domains, however, suggests that using common origin alone, as done in cladistic taxonomy, can produce weird results, like having birds as a subclass of reptiles; while the most satisfying classifications use a well balanced mix of common origin and similarity. It is discussed how this could be applied to the development of a general classification of phenomena in an emergentist perspective, and how the resulting classification tree could be structured. Charles Bennett's notion of logical depth appears to be a promising conceptual tool for this purpose.

Mela Bosch. **Ontologies, Different Reasoning Strategies, Different Logics, Different Kinds of Knowledge Representation: Working Together.** *Knowledge Organization*, 33(3) 153-159. 13 references.

**ABSTRACT:** The recent experiences in the building, maintenance and reuse of ontologies has shown that the most efficient approach is the collaborative one. However, communication between collaborators such as IT professionals, librarians, web designers and subject matter experts is difficult and time consuming. This is because there are different reasoning strategies, different logics and different kinds of knowledge representation in the applications of Semantic Web. This article intends to be a reference scheme. It uses concise and simple explanations that can be used in common by specialists of different backgrounds working together in an application of Semantic Web.

Wang Zhonghong, Abdus Sattar Chaudhry, and Christopher Khoo. **Potential and Prospects of Taxonomies for**

**Content Organization.** *Knowledge Organization*, 33(3) 160-169. 30 references.

**ABSTRACT:** While taxonomies are being increasingly discussed in published and grey literature, the term taxonomy still seems to be stated quite loosely and obscurely. This paper aims at explaining and clarifying the concept of taxonomy in the context of information organization. To this end, the salient features of taxonomies are identified and their scope, nature, and role are further elaborated based on an extensive literature review. In the meantime, the connection and distinctions between taxonomies and classification schemes and thesauri are also identified, and the rationale that taxonomies are chosen as a viable knowledge organization system used in organization-wide websites to support browsing and aid navigation is clarified.

Andrei I. Kapterev. **Governing the Professional and Intellectual Potential of a Modern Organization: Socio-logic Approach.** *Knowledge Organization*, 33(3) 170-175. 22 references.

**ABSTRACT:** Governing the professional and intellectual potential is an interdisciplinary field of scientific research using a systematic process of developing innovation technologies for transforming individual knowledge and specialists' experience in such a way that would apply the knowledge and experience to the processes, services and products offered by an organization to reach its strategic goals. From the technological standpoint, governing the professional and intellectual potential represents modeling, forming, using and developing the corporate system of governing the professional and intellectual potential. We consider structuring knowledge using this model rather valuable during the stage of forming the governance system of professional and intellectual potential. Understanding, i.e., explicit definition of these factors, would allow for constant observation of the behavioral trends and for organizing the activity in a way conducive for influencing the favorable change of these factors. In addition, the presence of the critical management factor (CMF) system enables one to check the significance of any activity (i.e., any processes within a company) against these factors.

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Founded under the title *International Classification* in 1974 by Dr. Ingetraut Dahlberg, the founding president of ISKO. Dr. Dahlberg served as the journal's editor from 1974 to 1997, and as its publisher (Indeks Verlag of Frankfurt) from 1981 to 1997.

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*Manuscripts* should be submitted electronically (in Word, WordPerfect, or RTF format) in English only to the editor-in-chief and should be accompanied by an indicative abstract of 100 or 200 words. Submissions via email are preferred; submissions will also be accepted via post provided that submissions are accompanied by a 3.5" diskette encoded in Word, WordPerfect, or RTF format.

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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, but preferred when applicable, e.g. (Jones 1990, 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), ...

*References* should be listed alphabetically by author at the end of the article. Journal names should not be abbreviated. Multiple citations by the same author should be listed chronologically and should each spell out the author's name. Articles appearing in the same year should have the following format: Jones, Thomas 1990a ... , Jones, Thomas 1990b ...

Examples:

Dahlberg, I. 1978. A referent-oriented, analytical concept theory for INTERCONCEPT. *International Classification*, 5(3). 142-151.

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 is 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 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 in 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 a forum for all those interested in the organization of knowledge on a universal or a domain-specific scale, using concept-analytical or concept-synthetical approaches, as well as quantitative and qualitative methodologies. KNOWLEDGE ORGANIZATION also addresses 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, as well as book reviews, letters to the editor, and an extensive annotated bibliography of recent classification and indexing literature.

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.

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 \$ 55/US \$ 110).

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