

# Knowledge Organization

## International Journal

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

Archiv

Vol. 29, issue 2, 2002

ERGON-VERLAG

ISSN 0943-7444 Knowl.Org.

# KNOWLEDGE ORGANIZATION

# KO

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

Francis J. Devadason, Neelawat Intaraksa, Ponprapa Patamawongjariya, Kavita Desai. (2002). **Faceted Indexing Based System for Organizing and Accessing Internet Resources.** *Knowledge Organization*, 29(2). 61-77. 20 refs.

**ABSTRACT:** Organizing and providing access to the resources on the Internet has been a problem area in spite of the availability of sophisticated search engines and other software tools. There have been several attempts to organize the resources on the World Wide Web. Some of them have tried to use traditional library classification schemes such as the Library of Congress Classification, the Dewey Decimal Classification and others. However there is a need to assign proper subject headings to them and present them in a logical or hierarchical sequence to cater to the need for browsing. This paper attempts to describe an experimental system designed to organize and provide access to web documents using a faceted pre-coordinate indexing system based on the Deep Structure Indexing System (DSIS) derived from POPSI (Postulate based Permuted Subject Indexing) of Bhattacharyya, and the facet analysis and chain indexing system of Ranganathan. A prototype software system has been designed to create a database of records specifying Web documents according to the Dublin Core and to input a faceted subject heading according to DSIS. Synonymous terms are added to the standard terms in the heading using appropriate symbols. Once the data are entered along with a description and the URL of the web document, the record is stored in the system. More than one faceted subject heading can be assigned to a record depending on the content of the original document. The system stores the surrogates and keeps the faceted subject headings separately after establishing a link. The search is carried out on index entries derived from the faceted subject heading using the chain indexing technique. If a single term is input, the system searches for its presence in the faceted subject headings and displays the subject headings in a sorted sequence reflecting an organizing sequence. If the number of retrieved headings is too large (running into more than a page) the user has the option of entering another search term to be searched in combination. The system searches subject headings already retrieved and looks for those containing the second term. The retrieved faceted subject headings can be displayed and browsed. When the relevant subject heading is selected the system displays the records with their URLs. Using the URL, the original document on the web can be accessed. The prototype system developed in a Windows NT environment using

ASP and a web server is under rigorous testing. The database and index management routines need further development.

Maja Žumer, Gerhard J.A. Riesthuis. (2002). **Consequences of Implementing FRBR: Are We Ready to Open Pandora's Box?** *Knowledge Organization*, 29(2). 78-86. 24 refs.

**ABSTRACT:** The study *Functional Requirements for Bibliographic Records* (FRBR) was commissioned by IFLA and published in 1998. It defines the core functions of a catalogue (and bibliographic records) as a gateway to information. For that purpose an abstract entity-relationship model of a catalogue is proposed. The FRBR model is revolutionary. The (computer) catalogue is not seen as a sequence of bibliographic records and a replica of the traditional card catalogue, but rather as a network of connected entities, enabling the user to perform seamlessly all the necessary functions. So far there has been some theoretical discussion of the model and some limited experiments, but there is a lack of research in how to implement this theoretical model in practice, in new-generation catalogues. In this paper some reactions to the model are analysed. The main focus is on consequences of the model for the OPAC interface design, particularly the searching functionality and display of results.

Uri Miller, Ruth Teitelbaum. (2002). **Pre-Coordination and Post-Coordination: Past and Future** *Knowledge Organization*, 29(2). 87-93. 31 refs.

**ABSTRACT:** This article deals with the meaningful processing of information in relation to two systems of information processing: pre-coordination and post-coordination. The different approaches are discussed, with emphasis on the need for a controlled vocabulary in information retrieval. Assigned indexing, which employs a controlled vocabulary, is described in detail. Types of indexing language can be divided into two broad groups – those using pre-coordinated terms and those depending on post-coordination. They represent two different basic approaches in processing and information retrieval. The historical development of these two approaches is described, as well as the two tools that apply to these approaches: thesauri and subject headings.

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## KNOWLEDGE ORGANIZATION

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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 four copies are submitted or that submissions are accompanied by a 3.5" diskette encoded in Word, Wordperfect, or RTF format.

A separate title page should include the article title and the author's name, postal address, and E-mail address, if available. Only the title of the article should appear on the first page of the text. To protect anonymity, the author's name *should not* appear on the manuscript, and all references in the body of the text and in footnotes that might identify the author to the reviewer should be removed and cited on a separate page. Articles that do not conform to these specifications will be returned to authors.

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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, 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

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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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Printed in the Federal Republic of Germany  
by Offizin Hildburghausen GmbH Druckhaus.

**KO is published quarterly by ERGON-Verlag.**

**The price is € 89,50/ann. including airmail delivery.**

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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

## 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-synthetical 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.

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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