

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

Contents

Call for papers for special issue of Knowledge Organization: Domain Analytic Contributions to Knowledge Organization.	
Guest Editor: Birger Hjørland. Royal School of Library and Information Science. Copenhagen.....	61
Call for papers and conference announcement for ISKO-France '04: Conceptual Approaches in Knowledge Organization. Grenoble, France. July 3-4, 2003.....	62
Conference announcement for CAL '03 21st Century Learning Conference. Queen's University Belfast, Northern Ireland. April 8-10, 2003.....	63
Conference announcement for the 6th Conference of the ISKO Chapter: 4th International Colloquium on Library and Information Science. Salamanca, Spain. May 5-7, 2003	64
Erratum	64
Articles	
Devadason, F. J.; Intaraksa, Neelawat; Patamawongjariya, Ponprapa; and Desai, Kavita. Faceted Indexing Based System for Organizing and Accessing Internet Resources.....	65
Žumer, Maja and Reisthuis, Gerhard, J. A. Consequences of Implementing FRBR: Are We Ready to Open Pandora's Box?	78
Miller, Uri and Teitelbaum, Ruth. Pre-Coordination and Post-Coordination: Past and Future.	87

KO Reports

Williamson, Nancy. Challenges in Knowledge Representation and Organization for the 21st Century: Integration of Knowledge Across Boundaries; Seventh ISKO International Conference, Granada, Spain, 10-13 July 2002.....	94
--	----

Book Reviews

SCHMITZ-Esser, Winfried. <i>Expo-Info 2000: visuelles Besucherinformationssystem für Weltausstellungen</i> [Expo-Info 2000 : a visual information system for visitors of World Exhibitions]. Berlin, Germany : Springer, 2000. xii, 119 p. ISBN 3-540-67307-5.....	103
WRIGHT, Sue Ellen, and BUDIN, Gerhard, eds. <i>Handbook of Terminology Management : Vol.2 Applications-oriented Terminology Management</i> . Amsterdam, The Netherlands : John Benjamins, 2001. 549 p (pp. 371-920). ISBN 9-0272-2155-3.....	104
SMIRAGLIA, Richard P. <i>The nature of "a work": Implications for the organization of knowledge</i> . Lanham, MD : Scarecrow Press, 2001. ISBN 0-8103-4037-5.....	107
TAYLOR, Arlene G. <i>Wynar's Introduction to Cataloging and Classification</i> . 9th ed. Assisted by David P. Miller. Englewood, CO : Libraries Unlimited, 2000. xx, 552 p. ISBN 1-56308-857-6(pbk)....	109

Knowledge Organization Literature

29(2002)No.2.....	110
-------------------	-----

Personal Author Index

29(2002)	121
----------------	-----

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.

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

KNOWLEDGE ORGANIZATION

This journal is the organ of the INTERNATIONAL SOCIETY FOR KNOWLEDGE ORGANIZATION (General Secretariat: Dr. Gerhard RIESTHUIS (Literature Editor), Liendenhof 60, NL-1108 HB Amsterdam, Netherlands).

Editors

Dr. Hope A. OLSON (Editor-in-Chief), School of Library and Information Studies, 3-20 Rutherford South, University of Alberta, Edmonton, Alberta T6G 2J4, Canada. Email: ko@ualberta.ca

Dr. Michèle HUDON (Book Review Editor), School of Library and Information Science, University of Montréal, Québec, Canada

Prof. Dr. Jens-Erik MAI (Reports Editor), Information School, University of Washington, Mary Gates Hall, Box 352840, Seattle, WA 98195-2840, USA. Email: jemai@u.washington.edu

Dr. Gerhard RIESTHUIS (Literature Editor), Liendenhof 60, NL-1108 HB Amsterdam, Netherlands

Dr. Nancy WILLIAMSON (Classification Research News Editor), Faculty of Information Studies, University of Toronto, 140 St. George Street, Toronto, Ontario M5S 3G6 Canada

Hanne ALBRECHTSEN (Communications Editor), Risø National Laboratory, Roskilde, Denmark.

E-mail: hanne.albrechtsen@risoe.dk

Georgina R. Zaharia SARANCHUK (Editorial Assistant), School of Library and Information Studies, 3-20 Rutherford South, University of Alberta, Edmonton, Alberta T6G 2J4, Canada. Email: ko@ualberta.ca

Consulting Editors

Prof. Dr. Ulf G. BARANOW, Rua Ubaldino do Amaral 580, Apt. 51, BR-80060-190, Curitiba - PR, Brazil

Prof. Clare BEGHTOL, Faculty of Information Studies, University of Toronto, 140 St. George Street, Toronto, Ontario M5S 3G6, Canada

Dr. Gerhard BUDIN, Dept. of Philosophy of Science, University of Vienna, Sensengasse 8, A-1090 Wien, Austria

Mr. Christian GALINSKI, Director: Infoterm, Simmeringer Hauptstr. 24, A-1110 Wien, Austria

Dr. Francisco Javier GARCIA MARCO, Area de Biblioteconomía y Documentación, Facultad de Filosofía y Letras, Universidad de Zaragoza, E-50.009 Zaragoza, Spain

Dr. M. A. GOPINATH, DRTC, Indian Statistical Inst., 8th Mile, Mysore Road, R.V. College P.O., Bangalore-560059, India

Dr. Rebecca GREEN, College of Information Studies, Hornbake Bldg. (So. Wing), Room 4105, University of Maryland, College Park, MD 20742-4345

Dr. Norbert HENRICHES, Im Luftfeld 80, D-40489 Düsseldorf, Germany

Dr. Roland HJERPPE, Dept. of Computer and Information Science, Linköping University, S-58183 Linköping, Sweden

Dr. Barbara H. KWASNICK, School of Information Studies, Syracuse University, 4-206 Ctr. for Science & Tech., Syracuse, NY 13244-4100

Dr. Jacques MANIEZ, 61 Rue de la Corve, F-21000 Dijon, France

Dr. Ia C. MCILWAIN, Director: School of Library, Archive & Information Studies, University College London, Gower Street, London, WC1E 6BT, U.K.

Prof. Dr. Francis MIKSA, Graduate School of Library and Information Science, University of Texas at Austin, SZB 564, Austin, TX 78712-1276

Ms. Joan S. MITCHELL, Editor: Dewey Decimal Classification, Library of Congress, Washington, D.C. 20540-4330

Dr. Widad MUSTAFA el HADI, URF IDIST, Université Charles de Gaulle Lille 3, BP 149, 59653 Villeneuve D'Ascq, France

Dr. Giliola NEGRINI, Consiglio Nazionale della Ricerca, Ist. di Studi sulla Ricerca e Doc. Scientifica, Via Cesare De Lollis, 12, I-00185 Rome, Italy

Ms. Annelise Mark PEJTERSEN, Systems Analysis Dept., Risø National Laboratory, P.O. Box 49, DK-4000 Roskilde, Denmark

Dr. Stephen A. POLLITT, CeDAR Centre for Database Access Research, School of Computing & Mathematics, The University of Huddersfield, Queensgate, Huddersfield HD1 3DH, U.K.

Dr. M. P. SATIJA, Guru Nanak Dev University, School of Library and Information Science, Amritsar-143 005, India

Dr. Jos SCHREINEMAKERS, Erasmus University, Rotterdam, PO Box 1738, 3000 DR Rotterdam, Netherlands

Dr. Otto SECHSER, In der Ey 37, CH-8047 Zürich, Switzerland

Dr. Winfried SCHMITZ-ESSER, Rothenbaumchaussee 3, D - 20148 Hamburg, Germany

Dr. Dagobert SOERGEL, College of Information Studies, Hornbake Bldg. (So. Wing), Room 4105, University of Maryland, College Park, MD 20742

Dr. Eduard R. SUKIASYAN, Chief Editor of the Library-Bibliographical Classification, Russian State Library, 3 Vozdvizhenka Str., Moscow, 101000 Russia

Dr. Elaine SVENONIUS, Graduate School of Education and Information Studies, UCLA, 5380 ½ Village Green, Los Angeles, CA 90016

Dr. M.S. van der WALT, Department of Information Science, University of Stellenbosch, Private Bag X1, Stellenbosch 7602, South Africa

Prof. Dr. Harald ZIMMERMANN, Softex, Schmollerstrasse 31, D-66111 Saarbrücken, Germany

KO

KNOWLEDGE ORGANIZATION

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

Publisher

ERGON-Verlag, Grombühlstr. 7, GER-97080 Würzburg
Phone: +49 (931) 280084; FAX +49 (931) 282872
E-mail: ERGON-Verlag@t-online.de; http://www.ergon-verlag.de

Editor-in-chief (Editorial office)

Dr. Hope A. OLSON (Editor-in-Chief), Georgina R. Zaharia SARANCHUK (Editorial Assistant), School of Library and Information Studies, 3-20 Rutherford South, University of Alberta, Edmonton, Alberta T6G 2J4, Canada.
Fax +1 (780) 492-2430; Email: ko@ualberta.ca

Instructions for Authors

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.

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 as much as possible 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.

The text should be structured by numbered subheadings. It should contain an *Introduction*, giving an overview and stating the purpose, a *main body*, describing in sufficient detail the materials or methods used and the results or systems developed, and a *conclusion or summary*.

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

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, T. (1990a) ... , Jones, T. (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 4th International ISKO Conference*. Frankfurt: Indeks Verlag. 119-122.

Footnotes should be kept to a minimum. They should be indicated in the text with numbered superscripts, and the corresponding notes should be collected at the end of the article, before the *references*, under the heading *Notes*.

Illustrations should be kept to a necessary minimum and should be submitted electronically when possible. Photographs (including color and half-tone) should be scanned with a minimum resolution of 600 dpi and saved as tif files (Tagged Image File Format preferred). Tables and figures should be embedded within the document or, alternatively, saved as separate files with clear instructions indicating their placement in the text. Tables should contain a number and title at the top, and all columns and rows should have headings. All illustrations should be cited in the text as Figure 1, Figure 2, etc. or Table 1, Table 2, etc. Illustrations submitted in hard copy only should be marked to indicate their placement in the text.

Upon acceptance of a manuscript for publication, authors must provide a wallet-size photo and a one-paragraph biographical sketch. The photograph should be scanned with a minimum resolution of 600 dpi and saved as a tif file (Tagged Image File Format).

Advertising

Responsible for advertising: Dr. H.-J. Dietrich, ERGON-Verlag, Grombühlstr. 7, 97080 Würzburg (Germany).

© 2002 by ERGON-Verlag Dr. H.-J. Dietrich.

All Rights reserved.

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.

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

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-synthesical 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).

Rates: From 2001 on for 4 issues/ann. (including indexes) € 98,- (forwarding costs included). Membership rates see above. ERGON-Verlag, Grombühlstr. 7, GER-97080 Würzburg; Phone: +49 (931) 280084; FAX +49 (931) 282872; E-mail: ERGON-Verlag@t-online.de; http://www.ergon-verlag.de

The contents of this journal are indexed and abstracted in *Referativnyi Zhurnal Informatika* and in the following online databases: *Information Science Abstracts*, *INSPEC*, *Library and Information Science Abstracts* (*LISA*), *Library Literature*, *PASCAL* and *Sociological Abstracts*.