

# Knowledge Organization

## International Journal

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

Archiv

Vol. 31, issue 4, 2004

ERGON-VERLAG

ISSN 0943-7444 Knowl.Org [doi.org/10.5771/0943-7444-2004-4-I](https://doi.org/10.5771/0943-7444-2004-4-I)

Generiert durch IP '3.139.233.19', am 02.05.2024, 21:07:41.

Das Erstellen und Weitergeben von Kopien dieses PDFs ist nicht zulässig.

## 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

## Articles

Charaf, Inaam. Conceptualisation and Organization of Knowledge Between the 10th and 14th Centuries in Arabic Culture ..... 213

Turner, James M. and Emmanuël Colinet. Using Audio Description for Indexing Moving Images ..... 222

Moreira, Alexandra, Lídia Alvarenga, and Alcione de Paiva Oliveira.  
“Thesaurus” and “Ontology:” A Study of the Definitions Found in the Computer and Information Science Literature, by Means of an Analytical Synthetic Method ..... 231

Losee, Robert. A Performance Model of the Length and Number of Subject Headings and Index Phrases ..... 245

## Classification Research Issues

Williamson, Nancy .....252

## Book Reviews

*IFLA cataloguing principles: steps towards an international cataloguing code: report from the 1st IFLA Meeting of Experts on an International Cataloguing Code, Frankfurt, 2003.* Edited by Barbara B. Tillett, Renate Gömpel and Susanne Oehlschläger. München: K.G. Saur, 2004. 186 p. (IFLA Series on Bibliographic Control; vol. 26) ISBN 3-598-24275-1 .....255

BATLEY, Sue. *Classification in Theory and Practice.* Oxford, England: Chandos Press, 2005. 181 pp. ISBN 1-84334-083-6 .....257

BOWMAN, J.H. *Essential Dewey.* New York: Neal-Schuman, 2005. 150 p. ISBN 1-55570-544-8 .....259

## Knowledge Organization Literature

31 (2004) No.4 .....261

## Personal Author Index

31 (2004) No.4 .....270

## Contents page

Charaf, Inaam. **Conceptualisation and Organization of Knowledge Between the 10th and 14th Centuries in Arabic Culture.** *Knowledge Organization*, 31(4). 213-221. 14 refs.

**ABSTRACT:** I present a detailed philosophical study of three classification systems: Al-Farabi, Al-Ghazali and Ibn Khaldun. The primary aim of this study is to formulate the underlying philosophical basis of each classification and to relate this basis to certain principles contained in the Islamic revelation. I also give analytical treatment of the following questions: the major distinguishing features of each classification and the attitude of each thinker towards the philosophical and religious sciences and how they envisaged the distinction between the two fields.

Turner, James M. and Emmanuël Colinet. **Using Audio Description for Indexing Moving Images.** *Knowledge Organization*, 31(4). 222-230. 9 refs.

**ABSTRACT:** This paper includes some of the results of a study that looks at three types of text for automatically deriving shot-level indexing to moving images. Audio description is a voice added to the sound track of moving pictures to provide information for the visually impaired. We analyse two one-hour parts of a television production broadcast as a mini-series in 1997. We compare our results with those of a previous study, which identifies some of the characteristics of audio description and the associated moving image. We found close correspondence among some aspects studied and for other aspects much less correspondence, but for reasons we are able to explain. In addition, in the process of conducting the current study we further developed our methodology and now feel that it is a mature method for analysing audio description text as a source for generating indexing to the associated moving image.

Moreira, Alexandra, Lídia Alvarenga, and Alcione de Paiva Oliveira. **“Thesaurus” and “Ontology:” A Study of the Definitions Found in the Computer and Information Science Literature, by Means of an Analytical Synthetic Method.** *Knowledge Organization*, 31(4). 231-244. 44 refs.

**ABSTRACT:** This is a comparative analysis of the term ontology, used in the computer science domain, with the term thesaurus, used in the information science domain. The aim of the study is to establish the main convergence points of these two knowledge representation instruments and to point out their differences. In order to fulfill this goal an analytical-synthetic method was applied to extract the meaning underlying each of the selected definitions of the instruments. The definitions were obtained from texts well accepted by the research community from both areas. The definitions were applied to a KWIC system in order to rotate the terms that were examined qualitatively and quantitatively. We concluded that thesauri and ontologies operate at the same knowledge level, the epistemological level, in spite of different origins and purposes.

Losee, Robert. **A Performance Model of the Length and Number of Subject Headings and Index Phrases.** *Knowledge Organization*, 31(4). 245-251. 15 refs.

**ABSTRACT:** When assigning subject headings or index terms to a document, how many terms or phrases should be used to represent the document? The contribution of an indexing phrase to locating and ordering documents can be compared to the contribution of a full-text query to finding documents. The length and number of phrases needed to equal the contribution of a full-text query is the subject of this paper. The appropriate number of phrases is determined in part by the length of the phrases. We suggest several rules that may be used to determine how many subject headings should be assigned, given index phrase lengths, and provide a general model for this process. A difference between characteristics of indexing “hard” science and “social” science literature is suggested.

This contents page may be reproduced without charge.

# 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: H. Peter OHLY, Social Science Information Center, Lennestr. 30, D-53113 Bonn, Germany.

### Editors

Dr. Richard P. SMIRAGLIA (Editor-in-Chief), Palmer School of Library and Information Science, Long Island University, 720 Northern Blvd., Brookville NY 11548 USA.  
Email: Richard.Smiraglia@liu.edu

Dr. Clément ARSENAULT (Book Review Editor), École de bibliothéconomie et des sciences de l'information, Université de Montréal, C.P. 6128, succ. Centre-ville, Montréal (QC) H3C 3J7, Canada. Email: clement.arsenault@umontreal.ca

Dr. Gerhard RIESTHUIS (Literature Editor), Liendenhof 60, NL-1108 HB Amsterdam, Netherlands.  
Email: gerhard.riesthuis@hum.uva.nl

Dr. Nancy WILLIAMSON (Classification Research News Editor), Faculty of Information Studies, University of Toronto, 140 St. George Street, Toronto, Ontario M5S 3G6 Canada.  
Email: william@fis.utoronto.ca

Hanne ALBRECHTSEN (Communications Editor), Risø National Laboratory, Roskilde, Denmark.  
E-mail: hanne.albrechtsen@risoe.dk

Dawn E. GROSS (Editorial Assistant), Palmer School of Library and Information Science, Long Island University.

### Consulting Editors

Prof. Dr. Ulf G. BARANOW, Rua Ubaldino do Amaral 580, Apto. 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. Email: clare.beghtol@utoronto.ca

Dr. Gerhard BUDIN, Dept. of Philosophy of Science, University of Vienna, Sensengasse 8, A-1090 Wien, Austria.  
Email: gerhard.budin@univie.ac.at

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

Dr. Francisco Javier GARCÍA MARCO, Area de Biblioteconomía y Documentación, Facultad de Filosofía y Letras, Universidad de Zaragoza, E-50.009 Zaragoza, Spain. Email: jgarcia@unizar.es

Dr. M.A. GOPINATH, 7604 Sandy Lake Ct., Raleigh, NC-27613, USA, (919) 788-9099 voice. Email: yadugirig@yahoo.com

Dr. Rebecca GREEN, College of Information Studies, Hornbake Bldg. (So. Wing), Room 4105, University of Maryland, College Park, MD 20742-4345 USA. Email: rgreen@umd.edu

Dr. Norbert HENRICHS, 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. KWASNIK, Professor, School of Information Studies, Syracuse University, Syracuse, NY 13244 USA, (315) 443-4547 voice, (315) 443-4506 fax. Email: bkwasnik@syr.edu

Dr. Ia MCILWAINE, Director, School of Library, Archive & Information Studies, University College London, Gower Street, London WC1E 6BT U.K. Email: i.mcilwaine@ucl.ac.uk

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 in Chief, Dewey Decimal Classification, OCLC Online Computer Library Center, Inc., 6565 Frantz Road, Dublin, OH 43017-3395 USA.  
Email: joan\_mitchell@oclc.org

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

Dr. Hope A. OLSON, School of Information Studies, 522 Bolton Hall, University of Wisconsin-Milwaukee, Milwaukee, WI 53201 USA. Email: holson@uwm.edu

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

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

Dr. J.F. (Jos) SCHREINEMAKERS, Section Business Informatics, School of Computer Science, Faculty of Sciences, Vrije Universiteit Amsterdam, The Netherlands. Email: jos@cs.vu.nl

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, Editor-in-chief, Library Bibliographical Classification (LBC), National Classification System of Russia, Russian State Library. Email: sukias@rsl.ru.

Dr. Martin van der WALT, Department of Information Science, University of Stellenbosch, Private Bag X1, Stellenbosch 7602, South Africa. Email: msvdw@sun.ac.za

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: [service@ergon-verlag.de](mailto:service@ergon-verlag.de); <http://www.ergon-verlag.de>

## Editor-in-chief (Editorial office)

Dr. Richard P. SMIRAGLIA (Editor-in-Chief), Palmer School of Library and Information Science, Long Island University, 720 Northern Blvd., Brookville NY 11548 USA.  
Email: [Richard.Smiraglia@liu.edu](mailto:Richard.Smiraglia@liu.edu)

## 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 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 4<sup>th</sup> 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).

©2004 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 € 103,00/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 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-synthetic 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, 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 2004 on for 4 issues/ann. (including indexes) € 103,00 (forwarding costs included). Membership rates see above.

ERGON-Verlag, Grombühlstr. 7, GER-97080 Würzburg;  
 Phone: +49 (931) 280084; FAX +49 (931) 282872; E-mail: service@ergon-verlag.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*, *Sociological Abstracts*, and *Web Science & Social Sciences Citation Index*.