

# Knowledge Organization

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# KNOWLEDGE ORGANIZATION

# KO

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Barite, M. G. (2000). **The notion of “category”: its implications in subject analysis and in the construction and evaluation of indexing languages.** *Knowledge Organization*, 27(1/2). 4-10. 11 refs.

**ABSTRACT:** The notion of category, from Aristotle and Kant to the present time, has been used as a basic intellectual tool for the analysis of the existence and changeableness of things. Ranganathan was the first to extrapolate the concept into the Theory of Classification, placing it as an essential axis for the logical organization of knowledge and the construction of indexing languages. This paper proposes a conceptual and methodological reexamination of the notion of category from a functional and instrumental perspective, and tries to clarify the essential characters of categories in that context, and their present implications regarding the construction and evaluation of indexing languages.

Julián, V., Carrascosa, C., Soler, J. (2000). **A Multiagent System Architecture for Retrieving and Showing Information.** *Knowledge Organization*, 27(1/2). 11-16. 14 refs.

**ABSTRACT:** Over the last few years the use of the agent/multi-agent paradigm has grown sharply. This paradigm has been applied to different fields including control processes, mobile robots, and information retrieval. In this paper, we present a system architecture based on the agent and multi-agent paradigm that allows us to retrieve and manage any kind of information from the Internet. We present our architecture as a generic and open system architecture. One of its main features is the agents' independence from the network's dynamic. We explain in detail what has already been done in our architecture as well as our future plans.

Vallejo, D. B., David A. A. (2000). **Processing the User Model in IRS** *Knowledge Organization*, 27(1/2). 17-26. 9 refs.

**ABSTRACT:** Our hypothesis is that when a user employs an IRS, he or she has an objective to achieve. This objective concerns the user's information need. In order to achieve this objective, the user generally does some activities using the IRS. The IRS proposes to the user solutions in response to the queries formulated by the user. The main task of an IRS is to provide the user with solutions that are relevant to his infor-

mation need. This is termed personalization of information. The main axis of our study is how to personalize the system's response according to the user's objective.

We propose the use of a user model for personalizing the system's response. In our approach, the user model defines what to represent for each user. The activities of the user during the use of an IRS are recorded based on the user model. The analysis and synthesis of these activities are used to provide the user with more relevant solutions according to his objective.

Three different applications have been developed to validate our approach of personalizing the system's response and based on an architecture that we defined for a cooperative information retrieval. The three applications are METIORE\_STREEMS, METIORE\_LORIA and METIORE\_REVUES. METIORE\_STREEMS is an IRS for managing multimedia information on trees authorized for reforestation by the European Union (EU). The project was sponsored under the EU project LEONARDO. The second application, METIORE\_LORIA is used for managing the publications of the computer science laboratory research center, LORIA, Nancy, France. The third application METIORE\_REVUES is used for the access and analysis of a journal called Relations Publics Information.

Pathak, L. P (2000). **Concept-Term Relationship and a Classified Schedule of Isolates for the term ‘Concept’.** *Knowledge Organization*, 27(1/2).27-34. 13 refs.

**ABSTRACT:** Draws attention to the efforts to define the terms ‘concept’ and ‘term’ and suggests a schedule of isolates for the term ‘concept’ under eight headings:- 0. Concept; 1. Theoretical aspects; 2. Learning theory and Psychological aspects; 3. Origin, evolution, formation, construction; 4. Semantic aspects; 5. Terms and Terminology; 6. Usage and discipline-specific applications; and 7. Concepts and ISAR systems. The schedule also includes about 150 aspects/isolate terms related to ‘concept’ along with the name of the authors who have used them. The schedule is intended to help in identifying the various aspects of a concept with the help of the terms used for them. These aspects may guide to some extent, in dissecting and seeing the social science concepts from various point of views.

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Bador, P., Rey, J. (2000). **Description of a professional activity. Modelling of the activity linked with the completion of a pharmacy thesis related to its terminology environment. I. Description, analysis and activity modelling.** *Knowledge Organization*, 27(1/2). 345-43. 12 refs.

**ABSTRACT:** In this paper, made up of parts I and II, we investigate the complex relationships between knowledge, information and activity in order to study how a system of activity assistance can help the actor to solve his information problems.

Through the example of the completion of a pharmacy thesis, we have tried, in part I, to describe, schematize and model the successive phases that make up the whole of this activity. Our method of observation and analysis combined the observation of two students preparing their pharmacy theses, the reading of five theses and the reading of six books. We thus propose in a table form, a modelling outline that presents the sequential succession of the ten operational phases describing the completion of a pharmacy thesis following a chronological order:

(1) Subject definition, (2) Documentary research, (3) Documents analysis, (4) Conceiving of the experimental strategy, (5) Experimentation, (6) Results interpretation, (7) Writing of the thesis, (8) Administrative procedures, (9) Preparation of the viva, (10) Viva.

The table also presents the succession of the structural, operational, material and human elements: Referents of the activity, Subject of the activity, Location of the activity, Identification of the operations, Handled objects, and Actors.

We have refined the activity analysis by drawing up a structured list, showing the organization of the terms related to the different operational phases. This work is presented in part II.

Bador, P., Rey, J. (2000). **Description of a professional activity. Modelling of the activity linked with the completion of a pharmacy thesis related to its terminology environment. II. Terminology organization of the activity.** *Knowledge Organization*, 27(1/2). 44-54. 13 refs.

**ABSTRACT:** Following the modelling of the activity related to the completion of a pharmacy thesis, as presented in part I, we have completed the activity analysis by drawing up a structured word list to show the terminological organization around the ten operational phases. Indeed, it seemed obvious to us that the reasoning at the root of any activity is based on words used to describe it. This terminology inventory which we called Structured Terminology Environment (STE), together with the modelling diagram, could eventually be directly used during the conceiving of a software tool specific to the studied professional activity.

The STE is a thesaurus of 565 words selected on the basis of a corpus stemming from five pharmacy theses and six books, where we put the significant terms which represent the actors and actions we observed during the ten phases, as well as the handled tools. Once the terms were shared out among the ten basic operations, we structured the terminology by grouping the concepts of a same nature so that the sub-categories show a certain homogeneity around the action. We used the following basic relationships: generic/specific relationships, whole/part relationships and finally, we completed the categorization with the help of classes induced by facets (process, phenomenon, properties, material or object, tool or equipment and operating conditions.)

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

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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-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. (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 \$ 55/US \$ 110).

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