



**KNOWLEDGE ORGANIZATION**

**INTERNATIONAL CLASSIFICATION**

formerly

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

**Special Issue**

**Papers and Summaries  
of the  
First Russian Regional ISKO Conference  
Moscow, May 10-14, 1993  
on  
Knowledge Organization:  
Problems and Tendencies**

INDEKS Verlag, Frankfurt  
ISSN 0943 - 7444 Knowl.Org.  
Vol. 20 (1993) No. 4

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## KNOWLEDGE ORGANIZATION

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

The journal is the organ of the INTERNATIONAL SOCIETY FOR KNOWLEDGE ORGANIZATION (General Secretariat: Woogstr. 36a, D-6000 Frankfurt 50)

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*Issue frequency:* 4x/ann. *Annual subscription rates:* Institutions per volume DM 97.-, Individuals per volume 20% less, if directly ordered from INDEKS Verlag. Single issues: DM 28.- Back issues available, ask for special offer. Subscription included in membership fee for members of the International Society for Knowledge Organization (ISKO). MwSt (domestic only) and postage are not included; for Air Mail delivery an additional DM 4.- per issue is required.

*Advertising rates:* Advertising rate card No.3. Advertising fact sheet with details of mechanical requirements and closing date available upon request.

*Publisher:* INDEKS Verlag, Woogstr.36a, D-60431 Frankfurt, Tel.069-52 36 90; FAX 069-52 05 66.

Bank Account Nos: INDEKS Verlag, Post giro-Konto Frankfurt No. 151208-608 (BLZ 500 10060). Frankfurter Sparkasse No. 852082 (BLZ 500 502 01)

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## Contents page

**Vol.20(1993)No.4**

**Sukiasyan, E.: Knowledge organization in Russia: problem-related and historical aspects.**

Knowl.Org. 20(1993)No.4, p. 189-191

Reviews the contribution by Russian researchers and specialists to the organization of knowledge, which for a number of reasons have remained unknown outside Russia. Looks into the main directions of classification practice in Russia in the 20th century. Analyzes the level of research of foreign professional experience and the state of bibliographical research concerning the problem of knowledge organization. (Author)

**Sokolov, A.V.: Public knowledge as a mosaic of competing and cooperating systems.**

Knowl.Org.20(1993)No.4, p. 193

Public knowledge in each historical period represents an inimitable, contradictory and stochastic mosaic of competing and mutually complementary (epistemological) systems. The ordering of the global and universal base of human knowledge should be founded not on the classification of sciences, but on the classification of public mentalities, which give rise to a historically stipulated semantic mosaic. (Author)

**Boloshin, I.A., Herzenstein, M.E.: Information physics. Hopes and weak points.**

Knowl.Org. 20(1993)No.4, p. 194

In the last few years a number of works, such as the monograph by T.Stonier "Information and the internal structure of the universe. An exploration into information physics", appeared. In these works information is regarded as a property of the Universe, which is as realistic as matter and energy. Special attention is given to particles of information - the infons.

The paper offers a critical analysis of selected parts of this work and shows that some of them contradict the basic physical laws. It is also shown that information does not need any special media, such as the infons. (Authors)

**Krushanov, A.A.: The picture of the world and knowledge organization.**

Knowl.Org.20(1993)No.4, p. 192

Work in the field of knowledge organization is based on a very rough understanding of a general structure and dynamics of the world. For the development of such understanding it is worthwhile to separate "universal" and "specified" knowledge and then to construct a system of universal criteria for "normalizing" a massive of the specified knowledge as a whole. (Author)

**Zhuravlev, V.F.: Organization of substantive scientific knowledge.**

Knowl.Org. 20(1993)No.4, p. 195-196

Discussion of ontological and logical structures of scientific concepts and descriptions, and of the respective relationships between units of knowledge on such levels as classification and category systems, the system of division of theory, theory, scientific field, applied, scientific, general scientific and philosophical knowledge and the system of science as a whole.

The author also looks at methodological and methodical use of the concept of substantive scientific knowledge in the practice of standardization of substantive scientific vocabulary for the improvement of the quality of selection of specific substantive units of scientific knowledge in a certain scientific field, their explication and systematization. (Author)

**Baranov, V.: Library systematology.**

Knowl.Org. 20(1993)No.4, p. 197

The purpose of the article is to present the main points on the science or the construction, development, use and maintenance of library classification systems. Problems of structure of library classification, as of a specific kind of activity, the nature of the document and classes of documents are discussed. (Author)

**Dvorkina, M.: The library environment as a form of knowledge organization.**

Knowl.Org. 20(1993)No.4, p. 198

Defines the concept "library environment", substantiates its potentials as a form of knowledge organization, and describes methods of supporting users' access to knowledge in the library environment. (Author)

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Melent'eva, J.: **The librarian as the organizer of information and knowledge of the reader**

Knowl.Org. 20(1993)No.4, p. 199

The present paper substantiates the necessity of comprehending the function of the librarian as that of an organizer of information and of reader's knowledge, which is today formed in conditions of information saturation of society, which has appeared as a logical continuation of such traditionally recognized functions of the library as storage and collection of information. (Author)

Shindryaeva, N.: **Knowledge organization as a problem of bibliographic tool structure.**

Knowl.Org. 20(1993)No.4, p. 200

At present the problem of knowledge organization into bibliographic tools must be examined in connection with the parallel existence of bibliographic information in traditional and machine-readable forms. There are two approaches to knowledge organization in traditional bibliographic tools: a formal approach (alphabetical, chronological groupings of the material) and a subject approach (systematic, thematic, subject groupings). Bibliographic databases at the same time combine special features of several traditional bibliographic tools by way of record grouping; they meet users' needs in knowledge organization better than the traditional ones. (Author)

Antopolsky, A.B.: **Governmental information resources in Russia: Problems of effective use.**

Knowl.Org. 20(1993)No.4, p. 202

In order to carry out a governmental policy in the field of creation and use of databases a special organization has been created: the Center for Scientific Research and Development "Informregister". The Center performs the registration of databases created in Russia, supplies free access to information resources, coordinates legal, linguistic and methodological problems of databanks and databases, conducts research in the field of standardization, certification and testing of information products, and maintains the Computer Directory of Russian Databases, using for this purpose a formal language for database description which pays special attention to the contents and thematics of information products. (Author)

Gorshkov, V.V., Lejchik, V.M.: **The problem of the compilation and implementation of terminological dictionaries of a new type.**

Knowl.Org. 20(1993)No.4, p. 203

An original conception by the authors for making terminological dictionaries closely approximate knowledge bases and basing them on achievement of computer lexicology is expounded. A typeset book dictionary with any assigned versions of arranging the terminological data may be obtained on the basis of a computer dictionary. (Authors)

Bakulov, A.D.: **Electronic terminological thesaurus-type vocabularies in computerization of education in the humanities.**

Knowl.Org. 20(1993)No.4, p. 204

The structure of electronic terminological (encyclopedic) thesaurus-type vocabularies in the field of social sciences is discussed. They constitute very useful instruments for the organization of knowledge in the social sciences and the humanities. (Author)

Belyakov, A.: **Non-parametrical data analysis in the organization of integrated information systems.**

Knowl.Org. 20(1993)No.4, p. 205

The transfer of data in information complexes encounters the problem of coordinated distribution of the information flows among specialized databases. It is possible to realize such a harmonization on the level of the users' interface with the help of methods of cluster and statistical analysis (Author)

Gamsahourdia, E., Kuznetsova, T.: **Retrieval support in the field of automatics and remote control.**

Knowl.Org. 20(1993)No.4, p. 206

The paper deals with the systematization of information in the database "Automatics and Remote Control", generated by the All-Russian Institute for Scientific and Technical Information (VINITI). Documents were analyzed according to the type of publication sources, by countries, languages and subjects. (Authors)

Lavrenova, O.: **Knowledge organization levels for computerized information systems.**

Knowl.Org. 20(1993)No.4, p. 207

The work represents an attempt to organize concepts used in the field of the development of linguistic software for information retrieval systems, including OPACs. Four levels of knowledge organization are suggested. Each level requires a specific model of knowledge and a specific terminology system. The problems under review are connected with the explicit presentation of knowledge contained in speech statements (texts) and with the preliminary system of knowledge, which helps their comprehension by man or by a system. (Author)

Efremenkova, V.M., Milovidon, N.: **The data structure of the VINITI "Computer Networks" information file.**

Knowl.Org. 20(1993)No.4, p. 208-209

Presents an attempt of scientometric analysis of information, which is contained in databases produced by the All-Russian Institute of Scientific and Technical Information (VINITI). The "computer networks" area is analyzed and a new classification structure is described. (Authors)

Dahlberg, I.: **Knowledge organization: Its scope and possibilities.**

Knowl.Org. 20(1993)No.4, p. 211-222

Sketch of historical development of knowledge organization and presentation of its scope as shown by the contents of the literature service, now called *Knowledge Organization Literature* (formerly *Classification Literature*) in the renamed journal KNOWLEDGE ORGANIZATION. The scheme is explained and shown on its three levels as well as its correlation to a universal classification system of knowledge fields, the *Information Coding Classification*. The possibilities of Knowledge Organization as a help for everybody, especially also students and above all students of education, and a help for political, industrial and social leaders are discussed. 10 measures for consideration and activation are listed. (Author)