

INTERNATIONAL CLASSIFICATION

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Editors/Herausgeber:

Dr. phil Ingeltraut Dahlberg, D-6 Frankfurt 50,
 Woogstr. 36a, BRD
 Prof. Dr. med. Dr. phil Alwin Diemer, Philosophisches Institut der Universität Düsseldorf, D-4 Düsseldorf 1, Universitätsstr. 1, BRD
 Prof. Jean M. Perreault, Director of the University Library, University of Alabama, P.O.B. 1247 Huntsville, Alabama 35807, USA
 Prof. Arashiripal Neelameghan, Documentation Research and Training Centre (DRTC), 112 Cross Road 11, Malleswaram Bangalore-560003, India
 co-sponsored by FID/CR (Fédération Internationale de Documentation, Committee on Classification Research), address see Prof. A. Neelameghan and by the International Federation of Library Associations (IFLA): International Office for UDC, Director: Mrs. D. Anderson; c/o The British Library, Ref. Div., London WC1B 3DG, England

Consulting Editors/Redaktionsbeirat:

Prof. Pauline Atherton, School of Library Science, Syracuse University, Syracuse, N. Y., 13210 USA
 Dr. A. I. Chernyj, VINITI, Moscow A-219, Baltijskaja ul. 14, USSR
 Dipl. Math. Hermann Fangmeyer, Euratom CCR C. E. T. I. S. (European Scientific Information Processing Centre), I-21020 Ispra (Varese) Italy
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Dr. Friedrich Lang, IBM, A-1040 Wien, Margarethenstr. 3/4, Austria
 Yukio Nakamura, Authorized Consulting Engineer, 14-8 Nisikata-1 Bunkyo-Ku, Tokyo 113, Japan
 Dr. Eugen Scibor, Institut Informacji Naukowej, Technicznej i Ekonomicznej (IINTEI), Al. Niepodległości 188, Warszawa, Poland
 Prof. Dr. Dagohert Soergel, School of Library and Information Services, University of Maryland, College Park, Md., 20742 USA
 Prof. Dr. Rolfert R. Sokal, State University of New York, Stony Brook, New York 11794, USA
 Prof. Bryan C. Vickery, School of Library, Archive and Information Studies, University College, Gower Street, London WC1, England
 Prof. Dr. Eugen Wüster, A 3250 Wiuseburg, Austria
 in collaboration with/in Zusammenarbeit mit:
 Forschungsabteilung Information und Dokumentation des Philosophischen Instituts der Universität Düsseldorf, D-4 Düsseldorf, Universitätsstr. 1, BRD.
 Prof. Dr. phil Norbert Henrichs

Authors of this issue

Dr. H. G. Small, Institute for Scientific Information, 325 Chestnut Street, Philadelphia, Pa. 19106, USA
 Dr. N. A. Stokolova, c/o Institute for Scientific Information, 325 Chestnut Street, Philadelphia, Pa. 19106, USA
 Priv. Dzt. Dr. W.-W. Höpker, Pathologisches Institut der Universität, Westring 17, 44 Münster, BRD
 Prof. J. B. Friis-Hansen, Danmarks Biblioteksskole, Birketinget 6, 2300 Copenhagen S, Denmark

Mr. M. Weitemeyer, The Royal Library, Christians Brygge 8, 1219 Copenhagen K, Denmark
 Dr. U. Fellmann, Hochschulbibliothek der T. H. Aachen, Templergraben 61, 5100 Aachen, BRD
 Ms. M. Krommer-Benz, Infoterm, Österr. Normungsinstitut, Postfach 130, 1021 Wien 2, Austria
 Mr. H. Felber, Infoterm, Österr. Normungsinstitut, Postfach 130, 1021 Wien 2, Austria
 Fr. Doz. G. Heinrich, Bibliothekar-Lehrinstitut, Universitätstr. 33, 5000 Köln 41, BRD
 Ms. E. de Andrade Oliveira, c/o IBICIT, ave. General Justo 171, Rio de Janeiro, Brasil
 Prof. Dr. F. Vogel, Institut für Statistik und Ökonometrie, Universität Kiel, Olshausenstr. 40-60, 2300 Kiel, BRD
 Prof. Hans Wellisch, College of Library and Information Services, University of Maryland, College Park 20742, Md. USA
 Prof. Jason Farradane, School of Library and Information Science, The University of Western Ontario, London N6A 5B9, Canada
 Dipl. Phys. S. Reball, Forschungsinstitut Manfred von Ardenne, Zepelinstr. 7, 8051 Dresden, DDR
 Prof. Dr. R. Kocourek, Department of French, Dalhousie University, Halifax, N. S., Canada
 Ms. G. Lambert, Bibliothèque de l'Université de Rouen, Bd Maurice-de-Brogie, 76 Mont-Saint-Aignan, France
 Mr. R. Agte, FOLGRA, Brunnerstr. 2, 8000 München 13, BRD
 Dr. H.-R. Spiegel, Stifterverband für die Deutsche Wissenschaft, Brucker Holt 56, 4300 Essen-Bredeney, BRD

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Small, H. G.: Structural dynamics of scientific literature.

In: Intern. Classificat. 3 (1976) No. 2, p. 67–74

A methodology is described for the structural analysis of scientific literature using the frequency with which items have been cited together (cocitation) as the measure of association between highly cited documents. A clustering procedure applied to these data results in the formation of groups of documents identifiable as research specialties. The principal concern of the paper is to analyze patterns of change in these structures from year to year, using data from the 1973 and 1974 *Science Citation Index*. The rate of change of clusters and the document turnover in clusters suggest that scientific research fronts are changing very rapidly. Change in the relationships among specialties is also observed by comparing configurations of clusters obtained by multi-dimensional scaling. By rotation of successive M-D-SCAL plots to a least squares congruence for corresponding clusters, it is possible to show how the clusters have "moved" relative to one another from one year to the next. (Author)

Stokolova, N. A.: Syntactic tools and semantic power of information languages. Pt. II of 'Elements of a semantic theory of information retrieval'.

In: Intern. Classificat. 3 (1976) No. 2, p. 75–81

Different kinds of syntactic tools of information languages (IL) in use, considered as meaning-distinguishing tools, are described as simplified forms of some initial IL grammar tools called 'standard phrases' which are n-place relational predicates of a special kind. A quantitative evaluation is attempted of the effects which the idiosyncracies of the syntactic tools of IL's have on their semantic power. (Author)

Höpker, W.-W.: Struktur und Kompatibilität des Thesaurus der Medizin. (Structure and compatibility of the Thesaurus of Medicine) (In German).

In: Intern. Classificat. 3 (1976) No. 2, p. 81–84

The medical thesaurus described is an international, compatible thesaurus in the German language the structure of which is based upon both a hierarchical classification and a variable classification of facets. Both classification principles are shown by three digit letters and figures. The thesaurus is compatible with the Clinical Key of Diagnosis (KDS), the International Classification of Diseases (E) (ICD/E), and the Systematized Nomenclature of Pathology (SNOP). Its volume comprises 22,000 different terms. (Author)

Dahlberg, I.: Classification theory, yesterday and today.

In: Intern. Classificat. 3 (1976) No. 2, p. 85–90

Until very recently, classification theory was held to be nothing but an expressed or unconscious knowledge framed in intuitively given reasons for the subdivision and arrangement of any universe. Today, after clarification of the elements of classification systems as well as of the basis of concept relationships it is possible to apply a number of principles in the evaluation of existing systems as well as in the construction of new ones and by this achieving relatively predictable and repeatable results. (Author)

Friis-Hansen, J. B.: Library classification systems in Denmark.

In: Intern. Classificat. 3 (1976) No. 2, p. 91–93

Report about the development of the classification system for public libraries in Denmark, the "Danish Dewey" and its five editions since its first one in 1915, as well as brief outline of more recent developments concerning subject cataloguing and cooperation between the Danish public libraries and the research libraries. I. C.

Weitemeyer, M.: Which way to "Shared Classification"? A Danish view.

In: Intern. Classificat. 3 (1976) No. 2, p. 93–96

Report on the results of an investigation to clarify 1) which classification systems are in use in other countries than Denmark meeting some preestablished criteria and 2) how much of the Danish classification data is preclassified on available magnetic tapes and in which classification system. Data for the use of the systems are shown as well as the percentages for language distribution of foreign literature in Danish research libraries. Discussion of new trends which may lead to use of a rough classification supplemented with subject headings. I. C.

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Körner, S.: **Classification theory.**

In: Intern. Classificat. 3(1976) No. 1, p. 3–6, 13 refs.

Some theory of classification underlies most practical activities, whether individual or social. It is involved in most attempts to understand the structure of reality on a metaphysical level and it is presupposed in the formulation of scientific laws. The logical and material principles of classification are covered as well as various general problems and criteria of classification. Differing classification principles in particular domains such as the natural sciences and medicine and in information are discussed as well as the place and role of classification in scientific method, its relation to and dependence on theory, scientific nomenclature and the philosophical issues through the heritage of Plato and Aristotle. (I. C.)

Chiapetti, F. s., Serrai, A.: **DEWEY, die Klassifikationen und das semantische Universum.**

(DEWEY, classifications schemes and the semantic universe)
(In German)

In: Intern. Classificat. 3(1976) No. 1, p. 7–11, 11 refs.

Some general remarks on the classification of Melvil Dewey are presented for the centennial of its first publication in 1876. Similarities with the methods worked out by G. Schott in 1664 and with the principles of modern science of science are indicated. The measurable parameters which individuate the Dewey Decimal and the Universal Decimal Classification in the poly-dimensional semantic space are illustrated: monodimensional extension of the DC/UDC and decimal utilization density (DUD). The DUD of class 54 (chemistry) is calculated and is compared with the DUD of class 159.9 (psychology) being much smaller (1/6). Report of work towards reconciliation of the UDC with thesauri (semantic correlation of concept spaces) and exemplification of a thesaurus-UDC (different from a UDC-thesaurus) is given in the field of philosophy. (Authors)

Comaromi, J. P.: **Conception and development of the Dewey Decimal Classification.**

In: Intern. Classificat. 3(1976) No. 1, p. 11–15, 9 refs.

Suggestions and origins of the structure and notation of the DDC which most probably can be traced back to the catalog of the St. Louis Public School Library and its author W. T. Harris whose classification principles were based on the philosophy of F. Bacon and G. W. F. Hegel. Description of the specialities in the first and second edition of the DDC of 1885 (the relative index, auxiliary tables faceting, and simplified spelling). Modernization of the system in the last quarter century by the publisher, Forest Press and the editor, B. A. Custer. References to translated versions of the DDC in Note 9. (I. C.)

Subramanyam, K.: **Seminal mnemonics in classification.**

In: Intern. Classificat. 3(1976) No. 1, p. 16–18, 8 refs.

The basic idea underlying seminal mnemonics is that concepts of objects or phenomena which are apparently unrelated at the phenomenal level, may be seen to be related to each other at a deeper level of perception. Seminal mnemonics consists of assigning the same notational digits to such "seminally equivalent" concepts, regardless of their verbal denotation or class context. But the perception of seminal equivalence of concepts is a difficult process, and demands a high degree of intuitive ability in the classificationist. In this paper an attempt is made to explain the theoretical basis of seminal mnemonics and to examine its use in classification. (Author)

Reball, S.: **Semantischer Bereich und Sachverhaltsbeschreibung von Dokumenteninhalten.** (Semantic field and subject description of document contents.) (In German)

In: Intern. Classificat. 3(1976) No. 1, p. 18–22, 10 refs.

The description of a document and its contents may be done either in an integrating mode by assigning it as a whole to a comprehensive subject field or in a mode distinguishing between the individual information items contained in a document. In either case the indications gained about the document contents may be used as access points in storage and retrieval processes as well as for other purposes. Differences and "over-lappings" of both methods are discussed; a model for the explanation of the relevant cases of indexing languages is presented considering also the relations to the concepts of subject- and form-oriented indexing. (Author, transl.)

Hölzl, J.: **Versuche zur Erstellung eines Warenthesaurus.**

(Attempts towards the construction of a commodity thesaurus.)

In: Intern. Classificat. 3(1976) No. 1, p. 23–32, 17 refs.

Four empirically generated commodity classifications were used in the attempt to construct five draft thesauri on three hierarchical levels. These drafts refer (1) to a 'general commodity thesaurus' (Annex 1), (2) to partial thesauri concerning the commodity groups 'food' and 'machinery-equipment' respectively and (3) to the article groups 'dietetic food' and 'lathes', (Annex 2, 3). These five partial thesauri should be tested in practical use as well as according to their scientific objectives. The drafts are meant as first steps to be followed by the elaboration of similar partial thesauri based on the application of other empirically generated classification schemes of general (international) or specific (industrial) importance. (Author)