UDC 025.4(05)

Vol. 3 (1976) No. 2

INTERNATIONAL CLASSIFICATION

Journal on Theory and Practice of Universal and Special Classification Systems and Thesauri

Zeitschrift zur Theorie und Praxis universaler und spezieller Klassifikationssysteme und Thesauri

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(Direktor: Prof. Dr. N. Henrichs)

Verlag Dokumentation, Publishers, München

ISSN 0340-0050 – Intern. Classificat. 3(1976) No. 2, p. 65–134 (München, Nov. 1976)

https://doi.org/10.5771/0943-7444-1976-2-l https://www.inlibra.com/de/page/agb - Open Access - (cc) BY

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UDC 025.4 (05)

INTERNATIONAL CLASSIFICATION

Journal on Theory and Practice of Universal and Special Classification Systems and Thesauri

Zeitschrift zur Theorie und Praxis universaler und spezieller Klassifikationssysteme und Thesauri

Editorial Office/Redaktion:
c/o Dr. I. Dahlberg, D-6 Frankfurt 50 Woogstr. 36a, Tel.: (0611) 52 36 90

Issue frequency/Erscheinungsweise:
2 x/ann.

Publisher/Verlag:
Verlag Dokumentation Saur KG, P.O.B. 711009, Pössenbacher Str. 2, D-8000 München 71, Bundesrepublik Deutschland, Tel.: (089) 798901, Telex: 5212067 saur d

Annual Subscription Rates/Abonnement:
DM 36,–. For members of national or international classification societies or groups DM 27,–/Für Mitglieder nationaler oder internationaler Klassifikationsgesellschaften oder -gremien DM 27,–
Single issue/Einzelheft: DM 20,–

Advertising prices/Anzeigenpreisliste 1/74

Bankverbindungen:
Postscheckkonto München 2061 41-804; Bayer. Hypotheken- und Wechselbank, München, Kto. Nr. 3 388 662

Printed by/Druck:
Hain-Druck KG, D-6554 Meisenheim/Glan

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Verlag Dokumentation, Publishers

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https://doi.org/10.5771/0943-7444-1976-2-1 https://www.inlibra.com/de/page/agb - Open Access - (cc) BY

UDC 025.4 (05)

INTERNATIONAL CLASSIFICATION Vol. 3 (1976) No. 2, p. 65–134, Nov. 1976

Journal on Theory and Practice of Universal and Special Classification Systems and Thesauri
Zeitschrift zur Theorie und Praxis universaler und spezieller Klassifikationssysteme und Thesauri

Publisher: Verlag Dokumentation Saur KG, P.O.Box, Pössenbacher Str. 2, D-8000 München 71, BRD
Tel.: (089) 798901, Telex 5212067 saur d
Editorial offices: c/o Dr. I. Dahlberg, Woogstr. 36a, D-6000 Frankfurt 50, BRD, Tel.: (0611) 52 36 90
Issue frequency/ Erscheinungsweise: 2/ann.; Subscription/Preis: DM 36,–/ann.

Contents page / Inhaltsfahne

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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 multidimensional 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 quantiative 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 als 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.

https://doi.org/10.5771/0943-7444-1976-2-l https://www.inlibra.com/de/page/agb - Open Access - (cc) BY

UDC 025.4 (05)

INTERNATIONAL CLASSIFICATION Vol. 3 (1976) No. 1, p. 1–64, May 1976

Journal on Theory and Practice of Universal and Special Classification Systems and Thesauri
Zeitschrift zur Theorie und Praxis universaler und spezieller Klassifikationssysteme und Thesauri

Publisher: Verlag Dokumentation Saur KG, P.O.Box, Pössenbacher Str. 2, D–8000 München 71, BRD
Tel.: (089) 798901, Telex 521 2067 saur d
Editorial offices: c/o Dr. I. Dahlberg, Woogstr. 36a, D–6000 Frankfurt 50, BRD, Tel.: (0611) 52 36 90
Issue frequency/ Erscheinungsweise: 2/ann.; Subscription/Preis: DM 36,–/ann.

Contents page / Inhaltsfahne

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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 polydimensional 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 "overlappings" 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)

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