

INTERNATIONAL

IC

CLASSIFICATION

Devoted to Concept Theory
Systematic Terminology &
Organization of Knowledge

Contents

Human Intelligence as a Precondition for the
Machine Processing of Knowledge

Relationships in Thesauri: Some Critical Remarks

Term and Reference Structure in Computerized
Deep Structure Indexing System

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I.C. Vol. 15 (1988) Nr. 3

Mater. E.: **Human intelligence as a precondition for the machine processing of knowledge.**

Int. Classif. 15 (1988) No. 3, p. 125-132, 24 refs.

As long as basic tasks of scientific information such as content analysis have not been theoretically analyzed by man, computers cannot be expected to supply really useable practical results. Inferential processes, too, presuppose that of the three basic categories, 'source, processing and target data', two data-types are known so that the third one may be arrived at by inference. This is demonstrated in the light of such fundamental questions as document- vs. problem-oriented content analysis, selection or abstraction, recall vs. precision rates, the relationships existing between main contents, essential contents, new elements and user needs, as well as those between document vs. fact retrieval systems. The tasks of the immediate future are measured against present-day computer capabilities. (Author)

Manicz, J.: **Relationship in thesauri: Some critical remarks.**

Int. Classif. 15 (1988) No. 3, p. 133-138, 19 refs.

After reviewing some fundamental distinctions in relationships (paradigmatic/syntagmatic, interconceptual/structural) the author proposes a functional approach for investigating the relationships in thesauri. The comparison between three closely related types of semantic fields (lexical, conceptual, thesaural) shows the specific function of relationships in all of these intellectual tools.

In information retrieval the two main functions are location of relevant concepts and search of exhaustivity. A clear distinction of these aims can contribute to solving the difficult problem of the choice of 'related terms'. It is suggested that their usefulness relies upon empirical rather than upon semantic proximity. Some practical propositions are made for the choice and display of relationships in thesauri. (Author)

Biswas, S.C., Smith, R.: **Term and cross reference structure in computerized deep structure indexing system.** Int. Classif. 15 (1988) No. 3, p. 139-144, 30 refs.

In 1964, Ranganathan manifested a novel approach to alphabetic subject indexing based on his idea of Facet Analysis in conjunction with the General Theory of Classification. Since then, research carried out at the Documentation Research and Training Centre, Bangalore, has led to three distinct but interrelated contributions - a General Theory of Subject Indexing Language (SIL); an indexing language called Postulate-based Permuted Subject Indexing (POPSI), abstracted from the General Theory of SIL; and a faceted hierachic scheme of terms with vocabulary control features, called Classaurus, also designed on the basis of the General Theory of SIL. Attempts were also carried out to use modern technology such as computers, to enforce a rigorous definition on the system. The most recent version of computerised POPSI is known as Deep Structure Indexing System (DSIS). Following the publication of the FID/CR Report entitled "Computerized Deep Structure Indexing System", a research project entitled 'Applicability and efficiency of deep structure based Subject Indexing Languages (SILs): PRECIS vs. DSIS' was undertaken at DLIS, Loughborough University, in 1986. Part of this project has been to write a software for DSIS, using a microcomputer. A representative sample of 600 documents (equally halved between macro- and micro-documents), chosen from three different social science subject fields, have been used as the test data.

In continuation of an earlier critical discussion on the computerized Deep Structure Indexing System (DSIS), this paper presents some more of the same, concentrating on its term structure and cross reference entry structure. (Authors)

Einem Teil der Ausgabe liegt eine Werbung des INDEKS Verlags bei.

INTERNATIONAL CLASSIFICATION



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 and commodity classification
terminology, lexicography, linguistics

Beginning 1974 **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 surveys, 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 analyses and reduction)
- (2) describing practical operations connected with numerical taxonomy/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, **INTERNATIONAL CLASSIFICATION** 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.

INTERNATIONAL CLASSIFICATION publishes original articles, reports on conferences and similar communications, the Newsletters of FID/CR (Committee on Classification Research of the International Federation for Documentation), and COCTA (Committee on Conceptual and Terminological Analysis), book reviews, letters to the editor, and an extensive annotated bibliography of recent classification and indexing literature, covering between 400 and 500 items in each issue.

INTERNATIONAL CLASSIFICATION 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.

INTERNATIONAL CLASSIFICATION 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 **IC** was published by K.G. Saur Verlag, München. Back issues of 1978-1985 are available from INDEKS Verlag, too. (The 7 volumes of 1978-1984 are offered now at the highly reduced price of DM 250.-.)

Rates: For 3 issues/ann. (including indexes every three years): Institutions DM 84.-, Individuals (20%), members of classification societies & groups (-30%), members of Gesellschaft für Klassifikation (-40%) + postage. For air-mail delivery add DM 4.- per issue.

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References should be listed at the end of the paper with the numbers in brackets referring to such numbers in brackets within the text part.

Additional notes should be indicated in the text by lifted single numbers (e.g. text) and equally collected with their texts at the end of the paper under the heading Notes.

Journal References should contain the names and initials of all authors, full title of the publication, abbreviation of the journal according to the ISO Standard No.4, volume number, year of publication in brackets, issue number and first and last page numbers. Monograph References should give the name(s) of the author(s), full title, edition, place of publication, publisher, year and number of pages.

Examples:

Fugmann, R.: The glamour and the misery of the thesaurus approach. In: Int. Classif. 1(1974)No.2, p.76-86, 20 refs.

Sartori, G., Riggs, F.W., Teune, H.: Tower of Babel. On the definition and analysis of concepts in the social sciences. Pittsburgh, Pa.: Int. Studies Assoc. 1975. 107 p. = Int. Studies Occ. Paper No.6.

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