

IC

CLASSIFICATION

INTERNATIONAL

Devoted to Concept Theory  
Systematic Terminology &  
Organization of Knowledge

**Contents**

**The Vocabulary Switching System.  
Description of Evaluation Studies**

**The Search for Generalized Information.  
Treatise IX on Retrieval System Theory**

**Vital Statistics on Abstracting and Indexing  
Revisited**

**Terminology and Artificial Intelligence**

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## INTERNATIONAL CLASSIFICATION

Devoted to Concept Theory, Systematic Terminology and Organization of Knowledge

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I.C. Vol. 12 (1985) No. 1

Niehoff, R., Mack, G.: **The Vocabulary Switching System. Description of evaluation studies.**  
Int. Classif. 12 (1985) No. 1, p. 2-6.

The Vocabulary Switching System (VSS) is presented as an experimental system designed to enhance search strategies and ultimately retrieval performance for those who use online bibliographic data bases. It contains 15 indexing and retrieval vocabularies from 12 different suppliers. It is a stand-alone, on-line, data base containing the subject descriptors and all the syndetic relationships found in the 15 vocabularies. Its major fields (modules) are: Physical Sciences, Life Sciences, Social Sciences and Business Module. The overview of VSS shows its structure and explains its types of files. The several types of evaluations conducted with VSS are as follows: (1) Evaluation of switching strategies and modules; (2) Formal evaluation involving end users, intermediaries, VSS, and publicly available data bases; (3) Informal evaluation involving information brokers, librarians, information science and library school graduate students, and data base vendor staff. The results of these evaluations are summarized.

Fugmann, R., Isenberg, M., Winter, J.H.: **Das Suchen nach verallgemeinerter Information.** (The search for generalized information. Treatise IX on Retrieval System Theory.)  
(In German). Int. Classif. 12 (1985) No. 1, p. 7-10, 4 refs.

When using a mechanized information system, one always runs the risk of phrasing a query too specifically. If a search concept is contained in a stored text in only a slightly generalized variation, then in the traditional Boole'ean search logic this concept will not be retrieved as a response to the query. This is particularly detrimental when the failure to satisfy a search parameter would, in the eyes of the searcher, be more than offset by the occurrence of another important and perhaps unexpected concept in the stored text.

In an earlier publication on this topic we described the device of "reverse retrieval". It would permit the retrieval of generalized information with conventional search techniques. This device, however, would be relatively expensive if several descriptors of the query and of a text in the store are to be compared in the mechanized matching process.

We now describe a device which makes it possible to retrieve generalized information of the aforementioned kind in a simpler and more versatile manner. It promises to be particularly effective in indexing languages with well developed hierarchies. During "hierarchical weighting" the machine program could assess the degree of generalization in which a search concept occurs in a stored text. It could also be made apparent in the printout of the responses which and how many search concepts occur in a stored text in only a generalized form. Depending on the degree of generalization which one is willing to tolerate for a response to a certain search concept, and depending on for how many and for which concepts one is willing to accept generalization or even entire absence, one could make one's subjective selection from a weighted arrangement of the search responses.

(Authors)

Wellisch, H.H.: **Vital statistics on abstracting and indexing revisited.**  
Int. Classif. 12 (1985) No. 1, p. 11-16, 3 refs.

The second volume of **Indexing and abstracting: an international bibliography**, covering the period 1977-81 is analyzed and in part compared with the previous volume (ca. 1850-1976). The work lists 1426 items in 26 languages for the five-year period and over 200 earlier items not included in the previous volume. Compared with the previous five-year period, the number of items increased by 79%, especially those in non-English languages; Russian and Japanese items show the highest increase, accounting for 12% and almost 4% of the total, respectively. The top producers of A&I literature are English, Russian, German and Japanese authors. Three quarters of all items are journal articles and conference papers, one fifth are books or reports.

A total of 251 journals published 943 articles, and 34% of these were in 8 core journals (6 English, 1 German, 1 Russian). Conference proceedings yielded 166 papers. Automatic indexing showed a 10% decrease in English items but a steep rise in items written in other languages, especially on linguistic methods of automation. Some older topics declined in importance but new terms from Artificial Intelligence to Word processors now appear in the subject index.

Nedobity, W.: **Terminology and artificial intelligence.**  
Int. Classif. 12 (1985) No. 1, p. 17-19, 9 refs.

Artificial intelligence research pursues the aim of providing the necessary tools for the creation of knowledge based systems, such as expert systems which offer immediate access to expertise and other cognitive capabilities stored in machines. Such systems usually have a high storage capacity for general background knowledge. Besides the surface structure of facts there is a deep structure of concepts which provide access to the entire system. This means that terminological principles have to be observed. Furthermore terminologists also draw great benefit from AI research when building up terminological data banks. They can utilize intelligent user interfaces to represent complete concept systems and to facilitate browsing in such a bank. A new generation of interactive software is introduced in this article which can be easily tailored to terminological needs. (Author)

# 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.

## INSTRUCTIONS TO AUTHORS

Manuscripts may be submitted in either English, German or French to the editor-in-chief in two sets (the original and one copy) typed in double space, comprising between 1500 to 3000 words. They should be accompanied by an English indicative abstract of 100-200 words.

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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<sup>1</sup>) and equally collected with their texts at the end of the paper under the heading Notes.

## 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), Infoterm and COCTA (Committee on Conceptual and Terminological Analysis), book reviews, letters to the editor and an extensive annotated bibliography of recent classification literature, covering between 300 to 400 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 I.C. was published by K.G.Saur Verlag, München. Back issues of 1974-1980 are now available from the new publisher.

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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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