

IC

CLASSIFICATION

INTERNATIONAL

Devoted to Concept Theory  
Systematic Terminology &  
Organization of Knowledge

Contents

A Procedure for Comparing Documentation  
language Applications: the Transformed  
Zipf Curve

Models and Techniques of Cluster Analysis  
Based on Scalar Product Relations

The Complementarity of Natural and Indexing  
Languages

A Descriptor Bank of Social Science Terms

A Study of Specialized Terminology: the  
Problem of Technical Terms

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# Contents

## Articles

- H.P. Ohly: A procedure for comparing documentation language applications: the transformed Zipf curve . . . . . 125
- W. Hartmann: Models and techniques of cluster analysis based on scalar product relations (In German) . . . . . 129
- R. Fugmann: The complementarity of natural and indexing languages . . . . . 140
- P.J. Whitelock: A descriptor bank of social science terms . . . . . 145
- T. Miyajima: A study of specialized terminology: the problem of technical terms . . . . . 152

## FID/CR News 6

- 4th International Study Conference on Classification Research. Conclusions and Recommendations . . . . . 155
- FID/CR Session at the Hong Kong FID Congress . . . . . 157
- IFLA Section on Classification and Subject Cataloguing . . . . . 157
- ASIS/SIG/CR Highlights from the Annual Report 81/82 . . . . . 157
- U.K.: CRG Meeting 239 . . . . . 158
- Research Projects . . . . . 158

## Infoterm News

- Report on the 4th Int. Study Conf. on Classif. Res. and 6th Ann. Conf. of the German Soc. for Classif. Terminology training for language mediators . . . . . 159
- An information pool of terminology theses and dissertations . . . . . 160
- Forthcoming meetings . . . . . 161

## Cocta News

- The Rio panels on technology . . . . . 162
- The Mexico panels on concepts and methodology . . . . . 163
- Future planning . . . . . 164

## Book Reviews

- Ambrosi, K.: Aggregation and identification in numerical taxonomy (in German) (Bock, in Engl.) . . . . . 165
- Neelameghan, A. (Ed.) Ordering systems for global information networks. Bombay 1975. Bangalore 1979 (H. Beck) . . . . . 165

## Obituary

- Jesse Hauk Shera, Dec. 8, 1903-March 8, 1982 . . . . . 170

- Classification Literature 9(1982)No.3 . . . . . 171

## Cumulated Index to Vols. 7-9

- A. Alphabetical Index . . . . . 181
- B. Form and Subject Index . . . . . 182

## INTERNATIONAL CLASSIFICATION

Devoted to Concept Theory, Systematic Terminology and Organization of Knowledge

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## Contents page

I.C. Vol. 9 (1982) No. 3

Ohly, H.P.: A procedure for comparing documentation language applications: the transformed Zipf curve.

In: Int. Classif. 9 (1982) No. 3, p. 125-128, 3 refs.

A common procedure for describing the word concentration of texts is presented by the ZIPF curve. Interpretation difficulties arise, however, at least where documentation language applications are compared. This paper presents a transformation consisting of a percentage-taking and a compression or stretching of the values of the ZIPF curve. Using three selected documentation languages as examples it is shown that the transformed ZIPF curve permits a differentiated comparison of concentrations.

(Author)

Hartmann, W.: Modelle und Verfahren der Clusteranalyse auf der Basis von Skalarprodukt-Relationen (Models and Techniques of cluster analysis based on scalar product relations)

In: Int. Classif. 9 (1982) No. 3, p. 129-139, 11 refs.

This contribution consists of two main parts. In the first part three different models of cluster analysis are presented based on scalar product relations. In the second part different methods and algorithms are presented for the numerical treatment of these three scalar product models.

(Author)

Whitelock, P.J.: A descriptor bank of social science terms.

In: Int. Classif. 9 (1982) No. 3, p. 145-151, 14 refs.

This article presents proposals for the organization and creation of a Descriptor Bank of terms used in Social Science Thesauri. The introduction places the present study in its context as one stage of a long-term project directed toward the creation of an Integrated Thesaurus for the Social Sciences. Subsequent sections describe the content and layout of Descriptor Bank entries, the record formats used in existing thesauri, and the software necessary for the creation of the Descriptor Bank and its subsequent use as a tool in the development of the Integrated Thesaurus. Finally, estimates of the human and machine resources necessary are presented.

(Author)

Fugmann, R.: The complementarity of natural and indexing languages. In: Int. Classif. 9 (1982) No. 3, p. 140-144, 33 refs.

It is a prerequisite of any successful literature search that one must be able to reconstruct or *predict* which modes of expression have been used in the search file to express the concepts or statements of interest. It is these expressions which must be looked up in an index or phrased as search parameters for mechanized retrieval.

With regard to *general concepts* the natural-language modes of expression, as used by the authors of documents, lack this predictability. It is inherent in any controlled indexing language or classification that it establishes representational predictability and, hence, prevents serious loss of relevant information, which would otherwise occur in retrieval. Sufficiently high retrieval precision can be attained through correspondingly large representational fidelity of the indexing language or classification. This requires well-balanced cooperation between vocabulary and grammar in these languages.

It is typical of *individual concepts*, on the other hand, that they are represented with good predictability and perfect fidelity even in the natural language of the author. Therefore, their translation into an indexing language is often superfluous.

Ambiguous "author-lingual" modes of expression should be preserved in the search file, too, although they may have already been represented there through an attempted indexing-language term.

(Author)

Miyajima, T.: A study of specialized terminology: the problem of technical terms.

In: Int. Classif. 9 (1982) No. 3, p. 152-154

Digest of a report describing a set of terminological studies mostly concerned with the comparison of Japanese with English, German, French, Russian and Chinese terms. The terminology in enterprises was also investigated as well as the sentence structures and the changes in the terminologies of some fields. A German version of this report is being prepared for publication.

(I.C.)

# 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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