INTERNATIONAL CLASSIFICATION

Devoted to Concept Theory Systematic Terminology & Organization of Knowledge

Contents

On the Invariance of Metrics on IR^n under Certain Families of Transformations of IR^n

Observations on Standards and Guidelines Concerning Thesaurus Construction

Integration of Thesauri in the Social Sciences

Toward Establishment of Compatibility Between Indexing Languages

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I.C. Vol. 8 (1981) No. 2

Dobbener, R.: Zur Skalen- und Translationsinvarianz von Metriken. (On the invariance of metrics $\mathbb{R}^n$ under certain families of transformations of $\mathbb{R}^n$) (In German)
In: Intern. Classificat. 8 (1981) No. 2, p. 64–68, 4 refs.

A problem of special interest in the field of cluster analysis is the characterisation of the metrics on $\mathbb{R}^n$ which are invariant under certain groups of transformation of $\mathbb{R}^n$. If all variables under consideration are measured on an intervall scale it is appropriate to use metrics which are invariant under the group of transformations generated by the diagonal n × n-matrices and the translations of $\mathbb{R}^n$. The characterisation of these metrics leads to a frustrating result: This article proofs that any metric invariant under this group of transformations treats the intervall variables as classificatory variables. In case of ratio variables one can restrict one's attention to $\mathbb{R}^{n+}$ and the group of positive diagonal-matrix-transformations of $\mathbb{R}^n$. The result is better now: A logarithm-like mapping of $\mathbb{R}^{n+}$ to $\mathbb{R}^n$ makes it possible to identify these metrics with the (well known translation-invariant metrics on $\mathbb{R}^n$. (Author)

Somers, H. L.: Observations on standards and guidelines concerning thesaurus construction.
In: Int. Classif. 8 (1981) No. 2, p. 69–74, 13 refs.

An attempt is made to compare the existing standards and guidelines for thesaurus construction and development, focussing particularly on the ISO, BSI standards as well as on the guidelines suggested by Aitchison and Gilchrist, and UNISIST. The different facets/aspects considered are: linguistic aspects of thesauri; formal requirements suggested by the standards/guidelines with special emphasis on problems associated with compound terms, homographs, forms of terms, etc.; semantic relationships between terms – synonymy, BT/NT, and associativity; problems peculiar to multilingual thesauri, especially the problem of inexact equivalence between terms; and presentation and arrangement of terms in a thesaurus. (acc. to Author)

Aitchison: J.: Integration of thesauri in the social sciences.
In: Intern. Classif. 8 (1981) No. 2, p. 75–85, 18 refs.

The paper discusses the objectives, characteristics and compilation of the proposed Integrated Thesaurus of the Social Sciences. The Integrated Thesaurus is not intended to supplant well-established thesauri, but to act as a master reference tool, which could serve as an aid in searching across data bases or as a switching mechanism. The first step in compilation should be the merging of terms to form a Descriptor Bank. This can reveal both matches and inconsistencies, but is limited by its verbal and alphabetical approach. To compare the merged terms at the concept level analysis in sub-fields is proposed within a classification framework, preferably one with a faceted structure, such as the second edition of the Bliss Bibliographic Classification. The classification would serve as the master against which the terms from the merged information languages, arranged in a compatibility matrix, would be compared. The master classification would be modified during interaction with the matrix terms, and emerge as the Integrated Thesaurus in a format similar to that of the BSI ROOT Thesaurus, having a detailed classified display and full alphabetical section. The compatibility data could be displayed either in the classified or alphabetical section. An example is worked out in the sub-field of Unemployment using terms from 5 thesauri and the UDC. Finally consideration is given to multilingual implications, testing and updating. (Author)

Dahlberg, I.: Toward establishment of compatibility between indexing languages
In: Int. Classif. 8 (1981) No. 2, p. 86–91, 31 refs.

Outlines previous work done in the field of compatibility between indexing languages (IL), and describes the scope, limitations and advantages of establishing compatibility between IL. Suggests methods for verbal comparisons between IL as well as generation of an alphabetical comparison matrix M1. Conceptual comparisons, however, demand a conceptual reorganization of M1 into a compability matrix M2 with its two alternatives, namely a system-related matrix M3 and a hierarchical matrix M4. In conclusion, the use of a compatibility matrix and organizational problems are described. (Author)

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INTERNATIONAL CLASSIFICATION

IC

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

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- mathematics, statistics, and computer science
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- archivistics and museology
- journalism and communication science
- industrial and commodity classification
- terminology, lexicography, linguistics

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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 knwoledge 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.

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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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