

INTERNATIONAL

IC

CLASSIFICATION

Devoted to Concept Theory  
Systematic Terminology &  
Organization of Knowledge

**Contents**

**Computerized Deep Structure Indexing  
System – A Critical Appraisal**

**Colon Classification Edition 7 –  
An Appraisal**

**Revising the Dewey Decimal Classification**

**The Theory/Concept/Indicator Problem:  
An Epistemological Note for COCTA**

INDEKS - Verlag, Frankfurt  
ISSN 0340-0050 Int.Class.  
Vol. 15 (1988) No. 1

# Contents

## Editorial

- Classification and Structure ..... 1  
(References on p. 20)

## Articles

- Biwas, S.C., Smith, F.: Computerized Deep Structure Indexing System –  
A critical appraisal ..... 2  
Dhyani, P.: Colon Classification Edition 7 – An appraisal ..... 13  
Comaromi, J.P., Satija, M.P.: Revising the Dewey Decimal Classification ..... 17  
Lane, J.E.: The theory/concept/indicator problem: An epistemological note  
for COCTA ..... 21

## Reports and Communications

- Association for Terminology and Knowledge Transfer (12) – Colloque sur  
l'Histoire de la Terminologie (12) – Association for Computational Linguistics.  
Second Conference on Applied Natural Language Processing ..... 20

## FID/CR News 22

- N.J. Williamson: Greetings from the Chairperson – 44th FID Conference and  
Congress – FRG: Classification and Order. 12th Annual Conference of Gesell-  
schaft für Klassifikation – U.K. CRG 263 and 264 – Education. A new classifica-  
tion scheme – USA: ASIS/SIG/CR – Classification Theory in the Computer Age.  
Interdisciplinary Perspectives ..... 27

## Classification and Indexing Research

- Current Bibliography of Projects. Indexes (1982–1987) ..... 28

## Infoterm News

- International Congress on Terminology and Knowledge Engineering –  
Computer-Aided Terminology and Machine-Aided Translation, a User-Group  
Meeting, Bad Homburg 1987 – Lecture visit to Ireland, Dublin, 2–4 Nov. 1987  
– International Congress "Communication and Cognition – Applied  
Epistemology", Gent, Belgium, 6–10 Dec. 1987 – Meetings 1988 –  
New Publications – Hidden Glossaries ..... 35

## COCTA News

- ..... 36

## Book Reviews

- Austin, D.: PRECIS: A manual of concept analysis and subject indexing,  
2nd ed. (H. Beck) ..... 37  
Dykstra, M.: PRECIS: A primer (H. Schnell) ..... 38  
Wynar, B.S.: Introduction to Cataloging and Classification (M.P. Satija) ..... 39  
Satija, M.P., Comaromi, J.P.: Introduction to the practice of the  
Dewey Decimal Classification (H. Wellisch) ..... 40  
Prytherch, R.: Harrod's Librarians' Glossary of Terms (E. Sauppe) ..... 41  
Panyr, J.: Automatic classification and information retrieval (D. Soergel) ..... 42  
Capurro, R.: Hermeneutics of special-subject information (M. Buscher) ..... 43  
Ballmer, T.T., Brennenstuhl, W.: German verbs (E. Mater) ..... 44  
Nalimov, V.V.: Space, time, and life. The probabilistic pathways of evolution  
(H. Löckenhoff) ..... 44

- Classification Literature 15 (1988) No. 1 ..... 47

## INTERNATIONAL CLASSIFICATION

Devoted to Concept Theory, Systematic Terminology and Organization of Knowledge

### Editors

Dr. phil. Ingetraut Dahlberg, D-6000 Frankfurt 50, Woogstr. 36a, Editor-in-chief

Prof. Francis Miksa, Graduate School of Library and Information Science, University of Texas at Austin, Austin, TX, 78712–1276, USA

Prof. Jean M. Perreault, University Library, University of Alabama, P.O.B. 2600 Huntsville, Alabama 35807, USA

Prof. Arashanipalai Neelameghan, 70/3 4th Main Road, Bangalore 560055, India

co-sponsored by

– FID/CR (Federation Internationale de Documentation, Committee on Classification Research, address Prof. Nancy Williamson, Faculty of Library and Information Science, University of Toronto, 140 St. George Str., Toronto, Ont., M5S 1A1, Canada

### Consulting Editors

Mrs. Jean Aitchison, 12, Sollershott West, Letchworth, Herts., SG6 3PX, England

Prof. Asterio T. Campos, Departamento de Biblioteconomia, Universidade de Brasilia, Brasilia DF, Brazil

Dr. A.I. Chernyi, VINITI, Moscow A-219 Baltyjskaja ul. 14, USSR

Dipl. Math. Hermann Fangmeyer, Euratom CCR C.E.T.I.S. (European Scientific Information Processing Centre), I-21020 Ispra, Italy

Dipl. Volksw. Otto Gekeler, Burgunderweg 9, D-7900 Ulm

Prof. Eric de Grolier, Conseil International des Sciences, I, rue Miollis, F-75 Paris 15e, France

Prof. Dr. Norbert Henrichs, Forschungsabt. Inform. u. Dokum. des Philosophischen Instituts der Universität Düsseldorf, D-4000 Düsseldorf, Universitätsstr. 1, FRG

Yukio Nakamura, Authorized Consulting Engineer, 14–8 Nisikata–I Bunkyo-Ku, Tokyo 113, Japan

Prof. Dr. F.W. Riggs, Department of Political Science, Univ. of Hawaii at Manoa, Honolulu, HI, 96822, USA

Mr. Mohinder Partap Satija, Department of Library and Information Science, Guru Nanak Dev University, Amritsar-143005, India

Dr. Eugen Scibor, Institut Informacji Naukowej. Technicznej i Ekonomicznej (IINTE), Ul. Zurawia 3/5, 00-926 Warszawa, Poland

Prof. Alfredo Serrai, Università degli Studi, via Stazione S. Pietro 22, Roma, Italy

Prof. Dr. Dagobert Soergel, School of Library and Information Services, University of Maryland, College Park, MD., 20742, USA

Prof. Dr. Robert R. Sokal, State University of New York, Stony Brook, New York 11794, USA

Gesellschaft für Klassifikation e.V. represented by Dr. Robert Fugmann, Alte Poststraße 13, D-6270 Idstein, FRG

Infoterm, c/o öster. Normungsinstitut, Postfach 130, A-1021 Wien

*Editors:* Dr. I. Dahlberg, Frankfurt; Prof. F. Miksa, Austin, TX; Prof. A. Neelameghan, Bangalore, India; Prof. J.M. Perreault, Huntsville, Ala., USA; co-sponsored by FID/CR

*Editorial Office:* c/o Dr. I. Dahlberg, Woogstr. 36a, D-6000 Frankfurt 50, Tel. 069/523690

*Issue frequency:* 3 x/ann. *Annual subscription rates:* Institution per volume DM 84,-; Individuals per volume DM 67,20; Single issues: DM 28,-, Backissues, hard copy, per issue DM 18,-, microfiche, per issue DM 6,- (1974-1977). Institutions will be billed. Individuals must prepay. For Air Mail delivery an additional DM 4,- per issue. Postage and Mwst (domestic only) is not included.

*Advertising rates:* Advertising rate card No. 1. Advertising fact sheet with details of mechanical requirements and closing dates available upon request.

*Publisher:* INDEKS Verlag, Woogstr. 36a, D-6000 Frankfurt 50, Tel. 069/523690

*Bank Account Nos.:* INDEKS Verlag, Post giro-Konto Frankfurt, No. 151208-608; Frankfurter Sparkasse von 1822, No. 852082 (BLZ 50050201)

All rights reserved. Printed in the Federal Republic of Germany 1988 by Druckerei H. Guntrum II KG, Postfach 180, D-6407 Schlitz

## Contents page

I.C. Vol. 15 (1988) No. 1

**Biswas, S.C., Smith, F.: Computerized deep structure indexing system – A critical appraisal.**

In: Int. Classif. 15 (1988) No. 1, p. 2–12, 41 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 hierarchic 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. This paper presents some of the drawbacks of the system which surfaced during the study. Although, no remedial measures being proposed at the moment, it is hoped that future modifications, if any, will try to alleviate these bottlenecks. (Authors)

**Comaromi, J.P., Satija, M.P.: Revising the Dewey Decimal Classification.**

In: Int. Classif. 15 (1988) No. 1, p. 17–20, 2 refs.

Revision of the DDC is based on the growth or recasting of knowledge that is revealed in a decade of publishing. Revision takes place at the Library of Congress and is guided by several professional committees and the advice of experts. *Decimal Classification Additions, Notes and Decisions (DC&N)* conveys revisions of a minor nature between editions. Separate publications, such as for 004–006 Data Processing and Computer Science, make extensive revisions available between editions. (Author)

**Lane, J.-E.: The theory/concept/indicator problem: An epistemological note for COCTA.**

In: Int. Classif. 15 (1988) No. 1, p. 21–24, 18 refs.

Social science knowledge has two basic modes: theory or concepts on the one hand and data or indicators on the other hand. How do we strike a balance between the two? The positivist philosophy of science overemphasized the empirical element whereas the new theory of science outlined by the adherents of Kuhn and Feyerabend state too strong a case for theory (theoreticism). It is equally wrong to reduce concepts to data as it is to reduce data to theory. Concepts and indicators should be stated in two different languages so that we may strike a balance between the two. Theory without data is empty and data without theory is blind. (Author)

**Dhyani, P.: Colon Classification Edition 7 – An appraisal.**

In: Int. Classif. 15 (1988) No. 1, p. 13–16

Describes the new features of Edition 7. States the plus points and weaknesses of this edition. Pinpoints the modifications and changes made in the Edition as against Edition 6. (Author)

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.

## 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.

Criteria for acceptance will be appropriateness to the field of the journal (see Scope and Aims), taking into account the merit of the content and presentation. Papers are accepted with the understanding that they have not been published, submitted or accepted for publication elsewhere and that, if the work received official sponsorship, it has been duly released for publication. Authors will usually be notified within 6 to 10 weeks. Unless specifically requested, manuscripts or illustrations will not be returned.

The text of the papers should be structured by subheadings; it should contain (a) an introduction, stating the purpose, (b) a description of materials and methods in sufficient detail, (c) information on results or systems developed and (d) a conclusion with a discussion and/or summarization.

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 FIO/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.

INDEKS Verlag, Woogstr. 36a, D-6000 Frankfurt 50.

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.

Illustrations should be restricted to necessary minimum.

Graphs and Diagrams should be supplied as black and white drawings suitable to reproduction. Half-tone illustrations should be sharp, well-contrasted glossy prints. Illustrations should be numbered tightly with soft pencil on the back. Numbered legends should be attached on a separate sheet.

Tables should be typed double-spaced on a separate sheet, contain a number and a title at the top and be cited in the text. Each column should have a heading.

Authors shall receive 25 reprints of their papers free of charge. Additional reprints may be ordered.

Corrections in galley proof exceeding 10% of the typesetting costs will be charged to the author.