Classification System for Knowledge Organization Literature

The *Classification System for Knowledge Organization Literature* is originally compiled by Dr. Ingetraut Dahlberg for the "Classification Literature" section of the Journal *International Classification* which was started with the first issue of the journal in 1974. The last time this classification was published by Dr. Dahlberg – with an introduction – was in *Knowledge Organization* 20(1993)4, p. 211-222. Many classes of this classification can be subdivided according to scientific disciplines or subject fields. For this subdivision the *Information Coding Classification,* also compiled by Dr. Ingetraut Dahlberg, is used. The *ICC* was published in *International Classification and Indexing Bibliography: Vol. 1 Classification Systems and Thesauri, 1950-1982. – Frankfurt/Main : Indeks Verlag, 1982. – p. 107-139.* The classes subdivided with the *ICC* are marked with a *. In most cases the codes of the *ICC* are combined with the codes of the classification for Knowledge Organization with a -, but in the classes 5 and 6 the subdivision is direct. Examples: 048-51/4 *Thesauri for the medical sciences*, but 651/4 *Literature about Thesauri for the medical sciences.*

Here the *Classification System for Knowledge Organization Literature* is printed as it is used by the present Literature editor of *Knowledge Organization,* including some small changes made with a view of changes in the literature in the field of knowledge organization.

An outline of the ICC is added.

0 FORM DIVISION

01 Bibliographies in Classification and Indexing
011 General Bibliographies
012 Current Bibliographies
013 Bibliography of Classification Systems and Thesauri
014 Bibliography of Universal Classification Systems
015 Recurring Bibliographies and Holding Lists
016 Bibliography of Special Classification and Indexing Fields
017 Bibliography of Special Indexing Systems
018 * Bibliography of Classification Systems and Thesauri in Subject Fields
019 Bibliography of the Works of Persons

02 Literature Reviews in Knowledge Organization
021 General Review Articles
025 Recurring Reviews
026 Reviews in Special Knowledge Organization Fields
028 * Reviews of Classification and Indexing in Subject Fields

03 Glossaries, Vocabularies, Terminologies in Knowledge Organization
031 General Glossaries in Knowledge Organization
032 Glossaries Containing Knowledge Organization Sections
033 Free
034 Terminology of Universal Systems
035 Free
036 Terms and Glossaries in Special Knowledge Organization Fields
037 Terminology of Special Classification and Indexing Systems
038 Terms and Glossaries in Knowledge Organization Application Fields
039 Free

04 Universal Classification Systems
041 Library Classifications Systems
042 Universal Decimal Classification.
042.1 Universal Decimal Classification. Complete Editions
042.2 Universal Decimal Classification. Medium Editions. Standard Editions
042.3 Universal Decimal Classification. Short Editions
042.5 Universal Decimal Classification. Extensions and Corrections
043 Dewey Decimal Classifications
044 Library of Congress Classification
044.8 Library of Congress Subject Headings
045 Bliss Bibliographic Classification
046 Ranganathan's Colon Classification
047 Library Bibliographical Classification. BBK
048 Other Universal Classification Systems and Thesauri
048-1 * Classification Systems and Thesauri in Logic, Mathematics and other Formal Sciences
048-2 * Classification Systems and Thesauri in Physics, Chemistry, Electronics, Energy
048-3 * Classification Systems and Thesauri in Astronomy, Geosciences, Geography, Mining
048-4 * Classification Systems and Thesauri in Biological, Veterinary Science, Agriculture, Food Sciences, Ecology
048-5 * Classification Systems and Thesauri in Human Biology, Medicine, Psychology, Education, Labour, Sports, Household

048-6 * Classification Systems and Thesauri in the Sociology, Politics, Social Policy, Law, Area Planning, Military Science, History
048-7 * Classification Systems and Thesauri in Economy, Management Science, Mechanical Engineering, Building, Transport
048-8 * Classification Systems and Thesauri in Science of Science, Information Science, Computer Science, Communication Science, Semiotics
048-9 * Classification Systems and Thesauri in Language, Literature, Music, Arts, Philosophy, Religion

05 **Periodicals and Serials in Knowledge Organization**
051 Knowledge Organization Journals
052 Knowledge Organization Newsletters, Bulletins
053 Serials in Knowledge Organization
054 Periodicals and Serials for Universal Classification Systems and Thesauri
055 Periodicals on Special Classification Systems and Thesauri
056 Periodicals on Special Knowledge Organization Fields
057 Periodicals With Bearings on Knowledge Organization
058 * Knowledge Organization Periodicals in Special Subject Fields

06 **Conference Reports and Proceedings**
(Listed According to Year, Month and Day(S): 06.93-11-18/19

07 **Textbooks in Knowledge Organization**
Subdivision According to the Outline Notation, for Example:
07.1 Textbooks on theoretical Foundations of Knowledge Organization
07.21 Textbooks on General Questions of Knowledge Organization
07.23 Textbooks on the Construction of Classification Systems and Thesauri
07.25 Textbooks on Numerical Taxonomy
07.3 Textbooks on Classing and Indexing
07.34 Textbooks on Automatic Classing and Indexing
07.41 Textbooks on Library Classification
07.75 Textbooks on Information Retrieval
07.77 Textbooks for Terminology
07.81 Textbooks on Applied Indexing
07.85 Textbooks on Book Indexing

08 **Other Monographs in Knowledge Organization**
Subdivisions as under 07, for Example:
08.21 Monographs on General Questions of Knowledge Organization
08.92 Festschriften for Persons in Knowledge Organization

09 **Standards and Guidelines in Knowledge Organization**
Subdivisions as under 07, for Example:
09.01 Bibliographies of Standards and Guidelines
09.12 Standards on Concepts and Concept Systems
09.23 Standards for Construction of Classification Systems and Thesauri
09.38 Standards for Indexes

1 THEORETICAL FOUNDATIONS AND GENERAL PROBLEMS

11 **Order and Knowledge Organization**
111 Knowledge Organization in General. Classification and Indexing theory in General
112 Structures in General
113 General Activities in Knowledge Organization
114 Universal Order
115 General Order of Objects, Object Orientation
116 General Order of Subjects
117 Object Orientation
118 * Problems of Order in Application Fields
119 Role and Significance of Knowledge Organization

12 **Conceptology in Knowledge Organization**
121 Logical and Philosophical Bases of Concepts
122 theory of Concepts. Knowledge Structure
123 Concept Construction, Definitions
124 Conceptual Models for Knowledge Representation
125 Basic Concepts, Categories
126 Kinds of Concepts
127 Quality Data
128 * Concepts of Certain Subject Fields
129 Concept Documentation

13 **Mathematics in Knowledge Organization**
131 Mathematical theory of Knowledge Organization. Fuzzy Sets. Formal Representation of Concepts
132 Algebraic Methods of Knowledge Organization
133 Formalisation and Mathematical Models
134 Geometrical Methods
135 Graph-theoretical Methods
136 Distribution theory and Frequency Studies
137 Numbers in Knowledge Organization
138 * Mathematical Methods in Subject Fields
139 Mathematical Methods for Certain Purposes

14 **Systems theory in Knowledge Organization**
141 Systems Principles
142 Typology of Systems
143 Systems Analysis and Description
144 Systems Approach, Knowledge Analysis
145 Decision Support Systems
146 Level theory, Integrative Levels
147 Neural Networks
148 Systems in Specific Fields of Knowledge
149 Information Management. Knowledge Management

15 **Psychology and Knowledge Organization**
151 Psychological Basis of Knowledge Organization
152 Thought and Memory
153 Intellectual Work
154 Concept Formation (Non-Scientific)
155 Psychology of Knowledge Organization Processes
156 Cognition and New Knowledge. Knowledge Acquisition
157 Computerisation of Thought Processes, Knowledge-Based Systems
158 * Psychology of Knowledge Organization in Special Subject Fields
159 Free

16 **Science and Knowledge Organization**
161 General Problems
162 Structure and Interrelationship of Science
163 Science Methodology
164 Development of Knowledge and Science
165 Control of Knowledge, Growth, Knowledge Systems
166 Structure of Scientific Literature
167 Contribution of Knowledge Organization to Science Development
168 Development of Fields of Knowledge
169 Documentation of Scientific Progress

17 **Problems in Knowledge Organization**
171 Knowledge Organization/Classification Problems in General
172 Problems from Classification Systems
173 Methodological Problems
174 Organisational Problems
175 Problems of Choice of Classification Systems
176 Problems from New Methods, e.g. Pattern Recognition
177 Problems from New Technology
178 * Knowledge Organization Problems in Subject Fields. Domain Classification
179 Trends and Future Tasks in Knowledge Organization

18 **Classification and Indexing Research**
181 General Problems
182 State-Of-the-Art of Classification and Indexing Research in General
183 Research on Classification and Indexing Methods and Techniques
184 Research on Classification Systems
185 Areas for Research, Proposals
186 Research on New Topics in Classification
187 Influence from Outside on Classification and Indexing Research
188 * Classification and Indexing Research in Special Subject Fields
189 Classification and Indexing Research in Certain Countries and Institutions

19 **History of Knowledge Organization**
191 History of Knowledge and Library Classification
192 History of Construction of Classification Systems
193 History of Indexing and Subject Cataloguing
194 History of Certain Classification Systems
195 History of Construction of Thesauri
196 History of Subjects Related to Knowledge Organization
197 Free
198 * History of Knowledge Organization in Special Subject Fields
199 History of Knowledge Organization in Certain Countries and Institutions

2 **Classification Systems and Thesauri, Structure and Construction**

21 **General Questions of Classification Systems and Thesauri. Information Languages in General**
211 theory of Classification Systems and Thesauri
212 Typology and Characteristics of Classification Systems and Thesauri
213 Management of Classification Systems and Thesauri, Incl. Computerisation
214 Thesauri in General, Definition, Etc. Ontologies
215 Characteristics and Kinds of Thesauri
216 thesaurus Systems, Integrated Thesauri
217 Role and Function of Classification Systems and Thesauri
218 Use of Classification Systems and Thesauri in Special Environments, e.g. in National Bibliographies
219 Comparisons between Classification Systems and Thesauri

22 **Structure and Elements of Classification Systems and Thesauri**
221 Conceptual Structures of Classification Systems
222 Components of Classification Systems and Thesauri in General
223 Vocabulary Selection and Extraction
224 Hierarchy and Hierarchical Levels. Polyhierarchical Relations
225 Facets. Faceted Classification. Faceted Thesauri
226 Descriptors, Keywords, Subject Headings: Properties and Functions
227 Compound Descriptors, Descriptor Combinations. Strings of Descriptors
228 * Descriptors in Certain Subject Fields
229 Representation Form of Descriptors. Graphical Form of Classification Systems and Thesauri

23 **Construction of Classification Systems and Thesauri**
231 Preconditions for Construction
232 Design Principles for Classification Systems
233 Methodology for Classification Systems Construction
234 Linguistic Support of Descriptor Languages

235 Construction of Thesauri in General
236 Construction of Thesauri for Special Purposes
237 Computer Supported Construction of Classification Systems and Thesauri
(for Programs see 275/277)
238 Classification Systems and Thesauri Construction in Different Natural Languages
(in Subject Fields see 5-6)
239 Evaluation of thesaurus Construction Work

24 **Relationships**
241 General and theoretical Problems of Relationships
242 Paradigmatic Relationships
(for Hierarchical Relations see 224)
243 Syntagmatic Relationships
244 Descriptor Relationships
245 Roles and Links
246 Weights
247 Relational Data Files
248 * Relations in Special Subject Fields
249 Representation of Relationships

25 **Numerical Taxonomy**
251 General and theoretical Problems
252 Cluster Analysis
253 Classification Procedures
254 Hierarchy in Numerical Taxonomy
255 Pattern Recognition
256 Place-Related Numerical Taxonomy
257 Time-Related Numerical Taxonomy
258 * Application of Numerical Taxonomy in Special Subject Fields
259 Evaluation of Numerical Taxonomy Procedures

26 **Notation. Codes**
261 General Problems of Notations
262 Notational Systems
263 Code and Notation Development, Construction and Manipulation
264 Characteristics of Codes
265 Book Numbers, Call Numbers
266 Class Numbers, Notation of Classification Systems and Thesauri
267 Number Systems and Codes for Special Purposes
268 * Notation and Codes in Certain Subject Fields
269 Evaluation of Notations and Codes

27 **Maintenance, Updating and Storage of Classification Systems and Thesauri**
271 Revision Principles
272 Maintenance of Classification Systems and Thesauri
273 Methods of Revision and Updating
274 Revision of Classification Systems and Thesauri in General
275 Computer Programs for Classifications
276 Computer Programs for Thesauri
277 Updating, Maintenance Programs
278 Storage Problems of Classification Systems and Thesauri
279 Free

28 **Compatibility and Concordances between Indexing Languages**
281 Objectives and Nature of Systems Compatibility
282 Intermediate Languages
283 Compatibility in Classing and Indexing
284 Establishment of Concordances
285 Correlative Indexes. Mapping
286 Systems Reconciliation, e.g. between Classification Systems and Thesauri, Linking Terms
287 Organised Compilation of Compatible Classification Systems and Thesauri, Integration
288 * Compatibility in Subject Areas
289 Evaluation of Compatibility

29 **Evaluation of Classification Systems and Thesauri**
291 Principles for Evaluating Classification Systems and Thesauri
292 Comparison of Classification Systems among each other
293 Testing and Evaluating the Validity of One Or More Classification Systems and Thesauri
294 Natural Versus Controlled Languages
295 Comparative Analysis of Classification Systems and Thesauri
296 Descriptor Languages Versus Classification Systems
297 Evaluation of Patent Classification Systems
298 * Evaluation of Classification Systems and Thesauri in Certain Subject Fields
299 Free

3 METHODOLOGY OF CLASSING AND INDEXING

31 **Theory of Classing and Indexing. (Methodology).**
311 Principles of Classing and Indexing
312 Methodology of Classing
313 Methodology of Indexing
314 Indexing Errors, Constraints
315 Indexing Characteristics (Depth, Intensity, Objectivity, Etc.)
316 Indexing on Different Levels of Abstraction
317 Author and Editor Indexing
318 Special Purpose Indexing
319 Free

32 **Subject Analysis**
321 General Problems of "Aboutness". Relevance
322 Data Analysis and Interpretation
323 Subject/Information/Knowledge Analysis
324 Contents Analysis - Text Analysis (Sociology)
325 Facet Analysis
326 Abstracting
327 Preparation of Information for Machine Handling
328 * Subject Analysis in Certain Fields
329 Comparative Analysis of Data and Subjects

33 **Classing and Indexing Techniques**
331 Classification and Indexing in General
332 Classing Methods and Techniques
333 Indexing Methods (Not Mentioned under 334/337 Or 34)
334 Co-Ordinate Indexing
335 Phrase Indexing (in General)
336 Chain Indexing
337 PRECIS Indexing
338 Other Phrase Indexing Methods By Name
339 Free

34 **Classing and Indexing (See also 81)**
341 theory of (Automatic) Classification and Indexing
342 Term Values, Discrimination, Precision, Etc.
343 General, Linguistic and Statistical Methods
344 Semi-Automatic Methods and Computer-Assisted Indexing. Automatic Indexing, e.g. Semantic Indexing
345 Permutation Indexing
346 thesaurus-Based Automatic Indexing
347 Automatic Online Indexing
348 Automatic Classification. Automated Categorisation
349 Evaluation of Automatic Indexing

35 **Manual and Automatic Order Techniques**
351 General and theoretical Problems
352 Mathematical Basis of File Organization
353 Generation of Clustered Files. Merging of Files. Consolidation of Files. Recognition of Similar Records
354 Manual Ordering, Shelving
355 File Ordering/Organization
356 Hypermedia, Hypertext, Etc.
357 Document Structuring, SGML, Hytime, DSSSL, HTML, XML, Etc. Mark-Up Languages
358 * File Organization in Subject Fields
359 Evaluation of Manual and Automatic Ordering

36 **Coding**
361 General and theoretical Problems
362 Coding Systems
363 Coding Methods
364 Encoding of Index Entries. Triads
365 Encoding of Catalogue Data. Cutter Numbers
366 Encoding of Text and Data
367 Coding of Techno-Economic Data
368 * Coding in Certain Subject Fields
369 Coding in Bibliographic Records

37 **Reclassification**
371 General and theoretical Problems
372 Parameters of Reclassification
373 Organization of Reclassification
374 Administrative Viewpoints
375 Reclassification to LCC
376 Conversion to LBC / BBK
377 Other Reclassification Projects
378 * Reclassification in Subject Areas
379 Free

38 **Index Generation and Programs**
(See also under 85)
381 General and theoretical Problems of Index Generation
382 Special Kinds of Indexes
383 Manual and Computerised Methods for Index Preparation
384 Programs for Index Preparation, General
385 Index Generation Programming Systems
386 Index Generation Programs, By Name
387 Programs for other Activities in Classification and Indexing
388 * Index Generation in Subject Fields
389 Representation Form of Indexes

39 **Evaluation of Classing and Indexing**
391 Problems and Principles of Indexing Evaluation
392 Evaluation Criteria: Consistency, Functional Efficiency, Etc. Recall and Precision
393 Methods of Evaluation
394 Evaluation of a Single Classification Systems Application
395 Evaluation of a Single Indexing System
396 Comparative Studies of Subject Indexing Systems, Incl. thesaurus *Vs* Free Indexing
397 Comparative Studies of Classification Systems *Vs* Indexing Systems
398 * Comparative Studies of Indexing in Subject Fields
399 Comparison of Certain Indexes

4 **On Universal Classification Systems and Thesauri**

41 **On Universal Classification Systems and Thesauri in General**
411 Library Classification in General.
412 Surveys on Existing Universal Systems
413 Standards for Classifications and Thesauri
414 theory and Problems of Library Classification
415 Specifications for a New Universal Classification System Or thesaurus
416 Free
417 Problems from Comparative Studies of Universal Classification Systems
418 Special Topics Treated in Universal Classification Systems
419 Trends in the Development of Universal Classification Systems

42 **On the Universal Decimal Classification**

43 **On the Dewey Decimal Classification**

44 **On the Library of Congress Classification**
448 **On the Library of Congress Subject Headings**

45 **On the Bliss Bibliographic Classification**

46 **On the Colon Classification**

47 **On the Library Bibliographical Classification**

48 * **On other Universal Classification Systems and Thesauri**

481 * On Proposals for Universal Classification Systems and Thesauri

482 * On Classification Systems for General Purposes

483 * On Thesauri and other Devices for General Purposes

484 * On Classification Systems and Thesauri for Archives

485 * On Classification Systems and Thesauri for Libraries, Including Public Libraries. Sears' List of Subject Headings

486 * On Classification Systems and Thesauri for Documentation and Information Services

487 * On Classification Systems and Thesauri for Patents and Standards (Subdivide By Country Codes)

488 * On Classification Systems and Thesauri for Research and Terminology

489 * On Classification Systems for other Special Purposes (Children, School and Youth Libraries, Public Offices, State Documents, Etc.)

49 Free

5 * ON SPECIAL OBJECTS CLASSIFICATIONS (TAXONOMIES)

51 * **On Taxonomies in Logic, Mathematics and other Formal Sciences**

52 * **On Taxonomies in Physics, Chemistry, Electronics, Energy**

53 * **On Taxonomies in Astronomy, Geosciences, Geography, Mining**

54 * **On Taxonomies in Bio Biological, Veterinary Science, Agriculture, Food Sciences, Ecology**

55 * **On Taxonomies in Human Biology, Medicine, Psychology, Education, Labour, Sports, Household**

56 * **On Taxonomies in Sociology, Politics, Social Policy, Law, Area Planning, Military Science, History**

57 * **On Taxonomies in Economy, Management Science, Mechanical Engineering, Building, Transport**

58 * **On Taxonomies in Science of Science, Information Science, Computer Science, Communication Science, Semiotics**

59 * **On Taxonomies in Language, Literature, Music, Arts, Philosophy, Religion**

6 * ON SPECIAL SUBJECTS CLASSIFICATIONS AND THESAURI

61 * **On Classification Systems and Thesauri in Logic, Mathematics and other Formal Sciences**

62 * **On Classification Systems and Thesauri in Physics, Chemistry, Electronics, Energy**

63 * **On Classification Systems and Thesauri in Astronomy, Geosciences, Geography, Mining**

64 * **On Classification Systems and Thesauri in Biological, Veterinary Science, Agriculture, Food Sciences, Ecology**

65 * **On Classification Systems and Thesauri in Human Biology, Medicine, Psychology, Education, Labour, Sports, Household**

66 * **On Classification Systems and Thesauri in Sociology, Politics, Social Policy, Law, Area Planning, Military Science, History**

67 * **On Classification Systems and Thesauri in Economy, Management Science, Mechanical Engineering, Building, Transport**

68 * **On Classification Systems and Thesauri in Science of Science, Information Science, Computer Science, Communication Science, Semiotics**

69 * **On Classification Systems and Thesauri in Language, Literature, Music, Arts, Philosophy, Religion**

7 KNOWLEDGE REPRESENTATION BY LANGUAGE AND TERMINOLOGY

71 **General Problems of Natural Language in Relation to Knowledge Organization**

711 Linguistics and Knowledge Organization

712 Natural Language and Metalanguage

713 Mathematical and Computational Linguistics, General

714 Semiotics

715 Formalisation of Natural Language. Artificial Intelligence. Expert Systems in General

716 Problems of Structure

717 Language Universals

718 Problems of Different Natural Languages

719 **Free**

72 **Semantics**

721 General Problems of Semantics

722 Word and Sentence Meaning

723 Semantic Analysis

724 On Synonyms and other Ambiguities

725 Semantic Networks and Associations

726 Semantics of Texts and Languages

727 Semantics of Data Bases, Memory Systems

728 * Semantics in Subject Fields

729 Free

73 **Automatic Language Processing**
731 General and theoretical Problems
732 On Language Items for Processing. Natural Query Systems
733 Methods and Procedures of Natural Language Processing, Parsing, Word Allocation, Co-Occurrences, Etc.
734 Computer Programs for Automatic Language Processing
735 Word Truncation, Root, Stem Procedures, N-Grams
736 File, Text Compression. Automatic Abstracting
737 Automatic Analysis of Special Natural Languages
738 * Automatic Analysis in Subject Fields
739 Spoken Document Retrieval. Speech Recognition

74 **Grammar Problems**
741 General and theoretical Problems of Grammar
742 Grammars
743 Syntactic Analysis and their Algorithms
744 Grammatical Forms, e.g. of Keywords, Terms, Words
745 Special Grammatical Problems, e.g. Frames
746 Generation of Phrases, Syntax Structures
747 Syntax of Special Natural Languages
748 * Syntax in Special Subject Fields
749 Free

75 **On-Line Retrieval Systems and Technologies**
751 General and theoretical Problems. Searching in General. Information Retrieval in General
752 Dialogue Systems. Interactive Catalogues. On-Line Catalogues. OPAC's
753 On-Line Access, Query Optimisation, Navigation, Query Expansion, Full Text Searching, Free Text Searching
754 Programs for On-Line Queries, e.g. for Ranking
755 Problems of On-Line Systems. Types of Searches, e.g. Boolean Searches, Structured Searches, Probabilistic Searches
756 Classification and thesaurus-Based Access
757 Expert Systems in Searching. Search Engines. Intelligent Agents. Routing. SDI. Data Mining. Data Fusion. Collection Fusion. Current Awareness Services
758 * On-Line Systems in Subject Fields. Information Systems in Subject Fields
759 Evaluation of On-Line Information Retrieval Systems and Techniques

76 **Lexicon/Dictionary Problems**
761 General and theoretical Problems
762 Dictionary Structures
763 Construction and Updating of Dictionaries
764 Kinds of Dictionaries, Except the Following
765 Automatic, Monolingual Dictionaries
766 Automatic, Multilingual Dictionaries
767 Data Bases in Dictionary Form
768 * Dictionaries in Subject Fields
769 Free

77 **Problems of Terminology**
771 General and theoretical Problems
772 Form and Designation of Terms and Names

773 Terminological Work
773.4 Computer Programs for Terminological Work
774 Term Systems and Terminological Systems
775 Classification and Terminology
776 Terminological Databanks
777 Country and Language-Oriented Terminological Work
778 Special Language Research
779 Contrastive Terminology

78 * **Subject-Oriented Terminology Work**
78-1 * Terminology Work in Logic, Mathematics and other Formal Sciences
78-2 * Terminological Work in Physics, Chemistry, Electronics, Energy
78-3 * Terminological Work in Astronomy, Geosciences, Geography, Mining
78-4 * Terminological Work in Biological, Veterinary Science, Agriculture, Food Sciences, Ecology
78-5 * Terminological Work in Human Biology, Medicine, Psychology, Education, Labour, Sports, Household
78-6 * Terminological Work in Sociology, Politics, Social Policy, Law, Area Planning, Military Science, History
78-7 * Terminological Work in Economy, Management Science, Mechanical Engineering, Building, Transport
78-8 * Terminological Work in Science of Science, Information Science, Computer Science, Communication Science, Semiotics
78-9 * Terminological Work in Language, Literature, Music, Arts, Philosophy, Religion

79 **Problems of Multilingual and Cross-Language Systems and Translation**
791 General and theoretical Problems
792 Aspects and Models of Translations
793 Automatic and Computer-Aided Translation
794 Translation of Classification Systems and Thesauri
795 Bilingual Classification Systems and Thesauri
796 Multilingual Classification Systems and Thesauri
797 Indexing, Multilingual Systems. Cross-Language Information Retrieval
798 * Translation Problems in Subject Fields
799 Interlinguistics and Translation

8 APPLIED CLASSING AND INDEXING

81 **General Problems, Catalogues, Guidelines, Rules, Indexes (See also 34)**
811 General Problems of Indexes and Indexers.

Subject Indexing in General. Consistency
812 Alphabetical and Classed Subject Catalogues
813 Establishment and Maintenance of Subject Catalogues.
814 Manuals, Rules, Codes for Subject Catalogues
815 Index Specifications
816 Rules for Good Subject Catalogues and Indexes
817 Editing and Printing of Indexes
818 Subject Indexes and Catalogues in Certain Institutions and Countries
819 Representation Forms of Classification and Indexing

82 Data Classing and Indexing
820 Data Classing and Indexing in General
82-1 * Data Classing and Indexing in Logic, Mathematics and other Formal Sciences
82-2 * Data Classing and Indexing in Physics, Chemistry, Electronics, Energy
82-3 * Data Classing and Indexing in Astronomy, Geosciences, Geography, Mining
82-4 * Data Classing and Indexing in Biological, Veterinary Science, Agriculture, Food Sciences, Ecology
82-5 * Data Classing and Indexing in Human Biology, Medicine, Psychology, Education, Labour, Sports, Household
82-6 * Data Classing and Indexing in Sociology, Politics, Social Policy, Law, Area Planning, Military Science, History
82-7 * Data Classing and Indexing in Economy, Management Science, Mechanical Engineering, Building, Transport
82-8 * Data Classing and Indexing in Science of Science, Information Science, Computer Science, Communication Science, Semiotics
82-9 * Data Classing and Indexing in Language, Literature, Music, Arts, Philosophy, Religion

83 Title Classing and Indexing. Derived Indexing
831 General Problems
832 Information Value of Titles
833 Methodology of Title and Sentence Classing and Indexing
834 Use of Tables of Contents
835 Free
836 Information Value of Terms from Abstracts Or Text.
837 Free
838 * Title Indexes in Subject Fields
839 Title Indexing in Special Institutions

84 Primary Literature Classification and Indexing (Except 85)
841 Classification and Indexing of Current Research and Research Reports
842 Classification and Indexing of Patents, Standards and Similar Documents
843 Classification and Indexing of Biographies
844 Classification and Indexing of News and Newspapers Inclusive Prestel/Viewdata, Etc.
845 Classification and Indexing of Journals and Serials
846 Classification and Indexing of theses and Dissertations
847 Classification and Indexing of Archival Materials
848 * Classification and Indexing of Field-Oriented Primary Documents. Record Management
849 Classification and Indexing of other Kinds of Primary Documents, Including Software

85 (Back of the) Book Classification and Indexing
See also 38
851 General Problems
852 Term Or Topic for Entries
853 Methodology of Book Indexing
854 Characteristics of Book Indexing
855 Indexing of Journals
856 Index Generation of Special Books, e.g. Proceedings
857 Computerised Book Indexing
858 * Book Indexing in Subject Fields
859 Evaluation of Book Indexing

86 Secondary Literature Classification and Indexing
861 Classification and Indexing of Encyclopaedias, Manuals, Dictionaries
862 Classification and Indexing of Bibliographies
863 Classification and Indexing of Abstracts and Abstracting Journals
864 Citation Indexing
865 Classification and Indexing of Library Catalogues
866 Establishment of Indexes to Classification Systems in General
867 Establishment of Indexes to Universal Classification Systems
868 Establishment of Indexes to Special Classification Systems
869 Classification and Indexing of other Secondary Literature

87 Classification and Indexing of Non-Book Materials
871 General Problems, e.g. of Shape. Classification and Indexing of Images in General. Multimedia. Audio-Visual Media
872 Picture Classification and Indexing, Including Photographs.
873 Microform Classification and Indexing
874 Slides Classification and Indexing
875 Video Tape and Film Classification and Indexing
876 Cartographic Classification and Indexing. Geographical Classification and Indexing.
877 Classification and Indexing of Phonographic Records. Music Scores. Music Instruments
878 Classification and Indexing of Museum Objects
879 Classification and Indexing of other Non-Book Materials, e.g. CD-ROMS, Internet, E-

Mail, Electronic Documents

88 * **Classification and Indexing in Subject Fields (Manual and With Computers)**

88-1 * Classification and Indexing in Logic, Mathematics and other Formal Sciences

88-2 * Classification and Indexing in Physics, Chemistry, Electronics, Energy

88-3 * Classification and Indexing in Astronomy, Geosciences, Geography, Mining

88-4 * Classification and Indexing in Biology, Veterinary Science, Agriculture, Food Sciences, Ecology

88-5 * Classification and Indexing in Human Biology, Medicine, Psychology, Education, Labour, Sports, Household

88-6 * Classification and Indexing in Sociology, Politics, Social Policy, Law, Area Planning, Military Science, History

88-7 * Classification and Indexing in Economy, Management Science, Mechanical Engineering, Building, Transport

88-8 * Classification and Indexing in Science of Science, Information Science, Computer Science, Communication Science, Semiotics

88-9 * Classification and Indexing in Language, Literature, Music, Arts, Philosophy, Religion

89 **Classification and Indexing in Certain Languages**
Subdivide By Language Code

9 KNOWLEDGE ORGANIZATION ENVIRONMENT

91 **Professional and Organisational Problems in General and in Institutions**

911 General Problems, e.g. Sociological Aspects

912 Professional Questions, e.g. Image, New Professions

913 Work Descriptions, Etc.

914 Workstations

915 Ergonomic Factors in Knowledge Organization

916 Organization of Work

917 Transfer of Data, e.g. CD-ROMS - Other Databases. Linking of Databases. Consolidation.

918 Problems Concerning the Internet. Metadata

919 MARC Format for Classification Data. Classification Data in MARC

92 **Persons and Institutions in Knowledge Organization**

921 Free

922 Historical Persons

923 Comparison of Persons

924 Contemporaries

925 Societies, Research Groups,

926 International Societies and Groups

927 International Institutions

928 Free

929 Awards in Classification and Indexing

93 **Organization of Classification and Indexing on a National and International Level. Shared Classification Indexing. Centralised Classification and Indexing**

931 General Principles. Shared Indexing in General

932 International Co-Operation and Systems

933 International Activities.

934 Activities in Europe (Subdivide By Country Code)

935 Activities in Asia

936 Activities in Africa

937 Activities in America

938 Free

939 Free

94 **Bibliographic Control. Bibliographic Records**

941 Bibliographic Control. Bibliography As Discipline

942 Cataloguing and Indexing in General

943 Archival Description. EAD

944 Bibliographic Records. Functions of Catalogues and Bibliographical Databases. Functional Requirements for Bibliographic Records

945 Record Structure. MARC, MARC21, UNIMARC

946 Bibliographic Description. Formal Cataloguing. Cataloguing Rules. ISBD

947 Interface for Bibliographic Records. Displays for Bibliographic Or Archival Records

948 Standard Numbers. ISBD. ISSN. ISMN. ISAN

949 Free

95 **Education and Training in Knowledge Organization**

951 General Problems

952 Subject, Curricula and Training Programmes

953 Methodology of Teaching Knowledge Organization

954 Side Effects of Teaching Knowledge Organization

955 Teaching Aids

956 Educational Requirements

957 Education and Training in Particular Countries

958 * Teaching of Subject-Oriented Classification and Indexing Systems

959 User Instruction. Teaching of End-Users

96 **Policy and Legal Questions**
(e.g. Copyright of Classification Systems, Copyright of Computer Programs in Classification and Indexing)

97 **Economics in Knowledge Organization**

971 General Aspects, e.g. Financing

972 Free

973 Economising Knowledge Organization Work

974 Free

975 Economic Aspects in Classification Systems Construction

976	Economic Aspects in Cataloguing
977	Economic Aspects in Classification and Indexing
978	Economic Aspects of Publishing Classification Systems
979	Free
98	**User Studies** (Application of Systems see 218)
981	Studies of Users, Readers in General. Information Literacy
982	Requirements of Classification and Indexing Users (User Interfaces, User Feedback, Search Term Selection)
983	Use of Certain Classification and Indexing Practices
984	Use of Classification Systems
985	Use of Thesauri
986	Use of Subject Catalogues
987	Use of Indexing Systems and Methods
988	Use of Indexes
989	Use of Classification Systems and Thesauri in Certain Institutions
99	**Standardisation in Knowledge Organization Work**
991	General Problems
992	Standardisation of Terms and Characteristics
993	Standardisation in Shelving and Organizing Materials
994	Standardisation of Classification Systems
995	Standardisation of Thesauri
996	Standardisation of Subject Catalogues
997	Standardisation in Indexing
998	Authority Files. Standardisation of Personal Names. Authority Files for Indexing
999	Free

Outline of the Information Coding Classification

0	**General Form Concepts**
01	Theories, Principles
02	Objects, Parts
03	Activities
04	Properties, Attributes
05	Persons
06	Institutions
07	Technical Production
08	Applications, Determination
09	Synthesis, Distribution
1	**Form and Structure Area**
11	Logic
12	Mathematics
13	Statistics
14	Systemology
15	Organization of Science and Technology
16	Metrology
17	Cybernetics (Control, Automat)
18	Standardization
19	Testing and Checking
2	**Energy and Matter Area**
21	Mechanics
22	Physics and Matter
23	General and Technical Physics
24	Electronics
25	Physical Chemistry
26	Pure Chemistry
27	Chemical Technology and Engineering
28	Energy Science and Technology
29	Electrical Engineering
3	**Cosmo- and Geo-Area**
31	Astronomy and Astrophysics
32	Astronautics and Space Research
33	Basic Geosciences
34	Atmospheric Science. Meteorology
35	Hydrospheric and Oceanological Science
36	Geological Sciences
37	Mining
38	Materials Science and Metallurgy
39	Geography
4	**Bio-Area**
41	Basic Biological Sciences
42	Microbiology and Cultivation
43	Plant Biology and Cultivation
44	Animal Biology and Breeding
45	Veterinary Science
46	Agriculture and Horticulture
47	Forestry and Wood Science and Technology
48	Food Sciences and Technology
49	Ecology and Environmental Science and Technology
5	**Human Area**
51	Human Biology
52	Health and Theoretical Medicine
53	Pathology and Special Medicine
54	Clinical Medicine and Nature Cure
55	Psychology
56	Education
57	Profession, Labour, Leisure
58	Sports and Games
59	Household and Home Life
6	**Socio-Area**
61	Sociology
62	State and Politics
63	Public Administration
64	Money and Finances
65	Social Aid, Social Politics
66	Law
67	Area Planning and Urbanism
68	Military Science and Technology

69	History
7	**Economy and Technological Production Area**
71	General economics and National Economy
72	Management of Enterprises
73	Technology and Engineering in general
74	Mechanical Engineering
75	Building
76	Commodity Science and Technology
77	Vehicle Science and Technology
78	Transport Technology and Services
79	Service Economics
8	**Science and Information Area**
81	Science of Science
82	Information Sciences
83	Computer Science and Technology
84	Information in general
85	Communication Science and Technology
86	Mass Communication
87	Printing and Publishing
88	Communication Engineering
89	Semiotics
9	**Humanities and Culture Area**
91	Language
92	Literature and Philology
93	Music
94	Fine Arts
95	Performing Arts. Theatre
96	Culture Science (Ethnology, etc.)
97	Philosophy
98	Non-Christian Religion and Secret Teaching
99	Christian Religion and Theology