## 0 Form Divisions

### 01 Bibliographies

**5112 Bibliography of United Nations Thesauri, Classifications, Nomenclatures.** Geneva: Inter-Organization Board for Information Systems 1979. 252 p.
This "bibliography" presents some 100 lists and systems (descriptor lists, thesauri, classification schemes etc.) in a formal way, giving the title, agency, department, type of tool, publication state, availability, fields covered, user, the use made of and the languages. Additional information is given in each case concerning the preparation, presentation, content and – if applicable, additional comments. The only index given is by responsible agency. The arrangement is according to broad subject areas, as e.g. agriculture, industry, population etc. The document has been produced as a joint effort of the organizations of the United Nations family by the Inter-Organization Board for Information Systems, Palais des Nations, CH–1211 Geneva 10.

**5113 Gilbert, V.: A list of thesauri and subject headings held in the Aslib library.** In: Aslib Proc. 31 (1979) No. 6, p. 264–274.
The list covers 154 lists and thesauri published since 1970. Arrangement is in the order of the UDC, however, without giving the UDC notation. It was recommended that the Aslib Library should serve as a clearinghouse for all thesauri produced in the United Kingdom.

### 02 Literature Reviews

**5114 Chung-Shu Yang: Design and evaluation of file structures.** In: Annual Rev. Inform. Sci. & Technol. 13 (1978) p. 125–143, 97 refs.

**5115 Jones, Marilyn H.: Year's Work in Cataloging and Classification: 1978.** In: Library Resources & Techn. Services 23 (1979) No. 3, p. 246–288, 354 refs.
Four pages and about 50 citations are dealing with classification in this very comprehensive report (p. 270–274), rendering a detailed survey on the happenings in our field in 1978.

### 03 Dictionaries, Terminologies

**5116 Boutin-Quesnel, R., Belanger, N. et al.: Vocabulaire systématique de la terminologie** (Systematic vocabulary of terminology). Montreal: Office de la Langue Française 1979. 87 p.

**5117 Rey-Debove, J.: Lexique. Sémiotique.** Semiotics Lexicon (In French) Paris: Presses Universitaires de France 1979. 156 p., ISBN 2-13-036116-1.
Alphabetical lexicon of semiotic terms and the definitions of their concepts.

**5118 Rouette, L.: Begriffliche Festlegungen über Datenstrukturen und Speicherorganisationen** (Conceptual definitions on data structures and storage organization). (In German). In: DIN-Mitt. 58 (1979) No. 10, p. 595–602.
Report on the results of a DIN Working Group in order to solicit the critical judgment of the professional world.

### 04 Classification Systems and Thesauri

**5119 Broad Terms for United Nations Programmes and Activities.** Geneva: Inter-Organization Board for Information Systems of the UN 1979. 187 p.

**5120 Macrothesaurus des Sciences et des Techniques.** (In French). Paris: Bureau National de l'Information Scientifique et Technique (BNIST) 1978. 633 p. (in three volumes).
Vol 1 presents the terms in a hierarchical display, Vols. 2 and 3 in alphabetical order.

**5121 Canadian Subject Headings.** Ottawa: National Library of Canada 1979. ISBN 0-660-10148.
The list was prepared for libraries with a Canadian collection. There is an English to French and French to English index added.

**5122 Haycock, K., Isberg, L. (Comps.): Sears List of Subject Headings: Canadian Companion.** New York: The H. W. Wilson Co. 1978. VII, 50 p., ISBN 0-8242-0629-0.
This is no substitute for the Sears List, it contains only the subject headings of Canadian references. The cataloguer must still consult "Sears".

**5123 DEWEY Decimal Classification and Relative Index.** Devised by Melvil Dewey. Ed. 19, ed. under the direction of B. A. Custer. Vol. 1: Introduction. Tables, Vol. 2: Schedules, Vol. 3: Index. Albany, N.Y.: Forest Press 1979. LXXXVIII, 482 p. + VIII, 1574 p. + XIII, 1217 p., $ 90.–
Vol. 1 contains a Foreword by J. A. Humphry, the Executive Director of Forest Press, a Preface by the Chairman of the Decimal Classification Editorial Policy Committee, Dr. J. P. Comaromi and an Editor's Introduction by B. A. Custer summarizing the changes and the revisions. There is no copy of the introduction by Melvil Dewey as in the earlier editions. A glossary of the classification terms as well as an index to the Editor's introduction and glossary is provided too.

**5124 U.S. Library of Congress. Subject Cataloging Divs.: Classification: Class P: Subclasses PN, PR, PZ, 2nd ed.** Washington, D.C.: Library of Congress 1978.

**5125 Hill, D.: The Picture File.** A manual and a curriculum-related subject heading list. 2nd ed. rev. & enl. Hamden, Conn.: Linnet Books 1978. 183 p., ISBN 0-208-01745-3

**5126 Thesaurus for the theory of formal and algebraic groups and its implementation on an ES computer.** (In Russian). Kiev: Akad. Nauk USSR, Inst. Kibernet. 1978: 39 p. (Preprint No. 27).

**5127 INIS Thesaurus.** Wien: Intern. Atomic Energy Agency 1979. 742 p., ISBN 92-0-178579-8, IAEA-INIS-13 (Rev. 17), öS 500.–

**5128 Golubeva, N. E. et al.: Thesaurus of organic compound classes.** (In Russian). Moskva: VINITI 1978. 94 p.
The thesaurus consists of the following parts: introduction, a lexico-semantic list of descriptors and non-descriptors, a generic index of descriptors in genus-species relationship and structural fragments of organic compound classes.

**5129 Thesaurus Elektrotechnik.** (Thesaurus for electrical engineering terms. (In German). 4th ed. Offenbach, DE: Zentralstelle Dokumentation Elektrotechnik im Fachinformationszentrum Technik (ZDE) 1978. 473 p.
This edition contains approx. 7310 concepts and 9460 terms in alphabetical order. Construction and structure of the thesaurus have been determined by the ZDE-thesaurus guidelines, and the DIN 1463. The thesaurus software used is from IDC (Intern. Dokumentationsgesellschaft Chemie).

**5130 KWOC List of Petroleum Abstracts' Exploration & Production Thesaurus and seldom-used descriptors**

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from the Supplementary Word List. 7th ed. Tulsa: The University of Tulsa 1978. 59 p.
A quick reference guide to multi-word descriptors with one word in common. The KWOC (Keyword out of context) list consists of two columns, one containing the individual words, the other the context of this individual word.

5131 Geowissenschaften Thesaurus — Deutsch, Französisch, Englisch (Thesaurus of the geosciences, German, French, English). De-Geographie. Hannover: Bundesanstalt für Geowissenschaften und Rohstoffe 1979. 32 p.
This part 2 contains the geographical terms in systematic order for use in literature documentation and information.

5132 Tesauro de Terminos de la Integración Subregional Andina. 2nd ed. (Thesaurus of terms on the integration of the Andes Subregion). (In Spanish). Lima: Biblioteca de la Junta del Acuerdo de Cartagena 1979. 257 p.
Contains 1350 descriptors in 206 semantic fields and 380 non-descriptors.

5133 Zeller, B.: Systematik der Organismenwelt und ihre Anwendung in Information und Dokumentation der Phytomedizin. (Systematics of the world of organisms and its application in phytomedical documentation and information.) (In German). Berlin: Technische Universität, FB Intern. Agrarentwicklung 1979. 568 p., 240 refs. = Dissertation.
The organisms are divided into five big groups. The criteria for subdivision as well as the technique of system numbers are described. The system was constructed with computer assistance.

5134 Hoyle, N., Kaiden, Ph., Lewis. D., Dahlquist, J. (Comps).: Indexing terms for physical education and allied fields. Albany, N.Y.: Marathon Press 1978. V, 288 p.
Contains more than 3000 indexing terms derived from a development of subject headings for "Physical Education/Sports Index".

5135 Child Abuse and Neglect Thesaurus. Washington: National Center on Child Abuse and Neglect 1978. VIII, 110 p. (DHEW Publ.-OHDS-78-30146)

5136 Schema generale di classificazione della guirisprudenza della Corte dei Conti. (General classification scheme for law of the Corte dei Conti.) (In Italian). ITA, Roma: Corte Suprema di Cassazione. C.E.D. 1979, VI, 63 p.
The structure of the scheme is based on the principles of the UDC.

5137 Grinev, S. V. et al.: Information retrieval thesaurus for construction and architecture. Fasc. 7: Graphic diagrams of generic relationships among descriptors. (In Russian). Moskva: Central'nyj inst. naučnoj inform. po stroitel'stvu i architekture 1978. 325 p.
All the 273 groups of descriptors are arranged in increasing order of codes and presented as graphic diagrams indicating the hierarchic and associative links of concepts.

5138 Vjazovetskaja, V. A. et al: Information retrieval thesaurus for building and architecture. An alphabetical list of descriptors and non-descriptors. (In Russian). Moskva: Central'nyj Inst. Naučn. Inform. po Stroitel'stvu i Architekture 1978. 192 p.

5139 Information retrieval thesaurus on the economics of shipbuilding and related industries. Russian—German. Leningrad: Central'nyj Naučno-Issledovatel'skij Inst. "Rumb" 1978. 86 p.

5140 Nikitina, S. E.: A thesaurus of theoretical and applied linguistics. Automatic text processing. (In Russian). Moskva: Nauka 1978. 375 p., 24 refs.
The dictionary is an attempt to develop an information thesaurus with differentiated semantic relations between descriptors. It

includes morphologic, syntactic and semantic terms occurring in linguistic works oriented at automatic processing of written texts (altogether some 2000 lexical units). The introduction describes the system of regular semantic relations among linguistic terms, including 27 types and the methods of creating lexical entries.
(Author, abbr.)

5141 Sardar, Ziauddin: Islam: Outline of a classification scheme. London: C. Bingley 1979. 81 p., ISBN 0-85157-285-5.
Presentation of a model scheme on Islam for consideration and criticism. The scheme is based on Ranganathan's Colon Classification principles.

## 06 Conference Reports, Proceedings

5142 Ellen, R. F., Reason, D. (Eds.): Classifications in their social context. London—New York—San Francisco: Academic Press 1979. XII, 262 p., ISBN 0-12-237160-7, $ 30.— = Language Thought and Culture: Advances in the Study of Cognition.
Papers of a two-day seminar on "Systems of Classification and the Anthropology of Knowledge" held at the University of Kent at Canterbury, June 1977. For the French participants this meeting was a sequel to the 1973 seminar on "Méthodes d'enquête ethnologiques sur la conceptualisation et la classification des objects et phénomenes naturels", organized by J. Barrau and M. Godelieur. One paper (R. Bulmer) was added, another one was omitted and printed elsewhere (5143 Coxon, A. P. M., Jones, C. L.: Images and predication: the use of subjective occupational hierarchies. In Quality and Quantity 13 (1979) No. 2, p. 121—140). The papers have each been revised. An index (names and subjects) was added. 5144 Ellen, R.: Introductory essay (on variability, arbitrariness, inclusiveness, anomaly, structural complexity, terminology, nomenclature and taxonomy as well as integration in semantic fields). 5145 Kesby, J. D.: The Rangi classification of animals and plants. 5146 Bulmer, R.: Mystical and mundane in Kalam classification of birds. 5147 C. Friedberg: Socially significant plant species and their taxonomic position among the Bunaq of Central Timor. 5148 Hunn, E.: The abominations of Leviticus revisited. A commentary on anomaly in symbolic anthropology. 5149 Morris, B.: Symbolism and ideology. Thoughts around Navaho taxonomy and symbolism. 5150 Barrau, J.: Coping with exotic plants in folk taxonomies. 5151 Peeters, A.: Nomenclature and classification in Rumphius's Herbarium Amboinense. 5152 Dolby, R.G.A: Classification of the sciences. The nineteenth century tradition. 5153 Bousfield, J.: The world scen as a colour chart. 5154 Reason, D.: Classification, time and the organization of production.

5155 Dahlberg, W.: Kooperation in der Klassification. Bericht über die 2. Fachtagung der Gesellschaft für Klassifikation, Frankfurt-Höchst, 6.—7. 4. 1978. (Cooperation in Classification. Report on the 2nd Conference of the Society for Classification.) (In German). In: Sprache u. Datenverarb. 2 (1978) No. 1, p. 78—81.

5156 Theoretical Problems of Informatics: New Trends in Informatics and its Terminology. Moskva: Committee "Research on the Theoretical Basis of Information" (FID/RI); Committee "Terminology of Information and Documentation" (FID/DT), VINITI 1979, 144 p. = FID Publ. 568.
Of the 13 papers presented and discussed during a joint meeting of the two FID Committees mentioned on 16—18 May 1978 in Moscow there are 5 papers of possible interest to classification and terminology groups, namely: 5157 Rozsa, G.: Interdisciplinary researches and information syntheses. 5158 Šrejder, Ja. A.: The intuitive and logical components in the creative process in science and technology. 5159 Gorkova, V. I.: A model for analysing terminological systems aimed at defining their structure. 5160 Beling, G. et al: Recent experiences in terminological work in the Federal Republic of Germany. 5161 Hlavata, E.: Research in informatics terminology in Czechoslovakia: state of the art and future prospects.

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5162 **Round-table Discussion "Les problèmes du découpage en terminologe"** (Segmentation problems in terminology.) (In German. Transl. H. Felber). Montréal, Aug. 26, 1978. In: COMTERM (1979) No. 2, p. 14–27
The discussion was chaired by G. Rondeau; papers and comments (two for each paper) are summarized in German. The papers: 5163 Auger, P.: La syntagmatique terminologique, typologie des syntagmes et limite des modèles en structure complexe (Terminological formation of word groups, typology of word groups and limitations of models with a complex structure). 5164 Droze, L.: Non-Term and Term. 5165 Dubuc, R.: Unité terminologique versus unité lexicographique. (Terminological unity versus lexicographical unity.) 5166 Goffin, R. D., Le découpage du terme à des fins lexicographiques: critères formels, sémantiques et "contrastifs". (Segmentation of terms for lexicographical aims: formal, semantic and "contrastive" criteria.) 5167 Vinay, J.-P.: Problèmes de découpage du terme (Problems of term segmentation).

5168 Rondeau, G. (Ed.): **Table ronde sur les problèmes du découpage du terme.** (Round Table on segmentation problems in terminology.) Montréal: Office de la Langue Française 1979. 213 p.
Contains the papers of this round table which took place on Aug. 26, 1978. The abstracts are listed in number 5162 of this issue.

5169 MacCafferty, M., Gray, K. (Eds.): **The analysis of meaning. Informatics 5.** Proc. Conf. Aslib Informatics Group and the BCS Inform. Retrieval Specialist Group, 26–28 March 1979, The Queen's College, Oxford. London: Aslib 1979. VIII, 302 p., ISBN 0-85142-125-3
Contains the 27 papers of this conference without discussions but with a masterpiece of an introduction by Margaret Masterman. The papers are grouped as follows: (1) Semiotics and general semantics, (2) Linguistic semantics, (3) Applied semantics: artificial intelligence systems, (4) Applied semantics: information retrieval systems. (For a report on that conference see I.C. 79-2, p. 118–119.) The Papers: 5170 Sloman, A.: The primacy on non-communicative language. 5171 Cain, A. J.: Taxonomic methods in biology. 5172 Best, P. J.: Data interpretation using an elliptical display. 5173 Parker-Rhodes, A. F.: Information processing – restricted or elaborated? 5174 Marsden, B.: False tautologies, unthinkable worlds and their imposssible mental objects. 5175 Knowles, F. E.: Recent Soviet work on computer techniques for representing natural language meaning. 5176 Somers, R. L., Johnson, R. L.: PTOSYS: an interactive system for "understanding" texts using a dynamic strategy for creating and updating dictionary entries. 5177 Galloway, P.: Yngve's depth hypothesis and the structure of narrative: the example of detective fiction. 5178 Williams, P. W.: The use of computer language principles to clarify the meaning of written English. 5179 Spector, A. M.: Some problems in the analysis of multi-segment texts. 5180 Wilks, Y.: A brief examination of procedural semantics. 5181 Hollnagel, E.: The relation between intention, meaning and action. 5182 Kostrewski, B.: Structural considerations for the derivation of application linked reference languages for medical information systems. 5183 Bell, C., Jones, K. P.: Back-of-the-book indexing: a case for the application of artificial intelligence. 5184 Januszewicz, M.: Analysis by meaning. 5185 Zarri, G. P.: Artificial intelligence and information retrieval: a look at the RESEDA Project. 5186 Verdier, V.: The use of translation categories in the PRECIS/Translingual project. 5187 Sparck Jones, K.: Problems in the representation of meaning in information retrieval 5188 Robertson, S. E.: Between aboutness and meaning. 5189 Gardin, J.-C.: On the relation between question-answering systems and various theoretical approaches to the analysis of text. 5190 Noerr, P. L.: Information navigation. 5191 Brooks, H., Oddy, R. N., Belkin, N. J.: Representing and classifying anomalous states of knowledge. 5192 Pigott, I. M.: Theoretical options and practical limitations of using semantics to solve problems of natural language analysis and machine translation. 5193 Hanford, K. V., Brown, D. J. H., Black, W. J.: EDOR: an interactive system for document retrieval. 5194 Buchanan, J. M., Robins, P. XC., Wyatt, B. K.: Perspectives on a polluted world: tools and procedures for information management. 5195 Goshawke, W.: Number language and information retrieval. 5196 Lubbock, G.: Meaning in IR: the problem behind the problem.

5197 Dahlberg, W.: **Classification and Cognition. Report on the Third Annual Conference of the Gesellschaft für Klassifikation e.V.** In: Intern. Classificat. 6 (1979) No. 3, p. 177–178, 4 refs.

5198 Kirchner, W. P., Stage, E.: **"Technical Information Systems Terminology and Controlled Vocabularies".** (Report on an International Symposium at the Bundesforschungsanstalt für Forst- und Holzwirtschaft, Hamburg.) (In German). In: Mitt. Ges. Bibl.wes. u. Dok. d. Landbaues (1979) No. 28, p. 58–69
The symposium took place on May 15–18, 1979 and comprised some 45 participants of 13 countries. The 20 papers presented are outlined. They are available in a single volume. Interested persons may turn to the following address: Wiss. Oberrat S. Schrader, BFA f. Forst- u. Holzwirtschaft, Leuschnerstr. 91, D–2000 Hamburg 80.

5199 Dahlberg, I.: **Classification topics at 1979 ASIS Conference.** In: Intern. Classificat. 6 (1979) No. 3, p.179
Reports on the relevant papers and the results of the meetings of the Special Interest Group on Classification Research of the American Society for Information Science (ASIS-SIG/CR), Minneapolis, Minn., Oct. 14–18, 1979.

5200 Institut für Informationswissenschaft, Erfindungswesen und Recht: **XI. Kolloquium über Information und Dokumentation vom 14.–16. Nov. 1979. Themenkreis I:** Theorie und Praxis des Informationsaustausches. (In German). Ilmenau: INER 1979. 277 p. = Dokumentation/Information H. 45
One of the four sections of this conference was devoted to theory and practice of information exchange and includes a number of papers and considerations devoted to problems of classification and indexing, such as the following: 5201 Mater, E.: Gegenwärtige und zukünftige Ausgaben beim Informationsaustausch durch Magnetbanddienste. 5202 Pšeničnaja, L. E.: Dialog in Informationsrecherchesystemen. 5203 Mildner, H.: Zum Einsatz der natürlichen Fachsprache bei der Informationsrecherche. 5204 Neubert, G.: Technische Fachsprachen in der wissenschaftlichen Information. 5205 Dietze, J.: Probleme der rechnergestützten Klassifizierung (Clusteranalyse).5206 Springl, W.: Entwicklung eines mehrsprachiigen Thesaurus (Kurzfassung). 5207 Rudnicki, P.: Die Anwendung der Sprache MIZAR für die wissenschaftliche Information. 5208a Feitscher, W.: Quantifizierung qualitativer Merkmale. 5208b Scheller, B.: Extraktion faktographischer Angaben. 5209 Bekisz, St.: Das Klassiflzieren von Dokumenten auf der Grundlage der bibliographischen Analysen.

## 07 Textbooks

5210 Buchanan, B.: **Theory of library classification.** London: C. Bingley; München–New York–Paris: K. G. Saur 1979. 141 p., ISBN 0-85157-270-7
Based on the content of the classification sections of the two-year course in indexing given at the School of Librarianship, Loughborough Technical College.

5212 Elrod, J. M.: **Classification.** 2nd ed. Metuchen, N.J.: Scarecrow Press 1978. VIII, 79 p. = Modern Library Practices Series, 3. ISBN 0-8108-1094-8

5213 Svenonius, E.: **Book review of K. G. B. Bakewell: Classification and Indexing Practice.** Hamden, Conn.: Linnet Books; London: C. Bingley 1978. In: Libr. Quarterly 49 (1979) No. 4, p. 463–465

## 09 Standards, guidelines

5214 Alsheimer, R.: **Der Bremer Schlagwortindex. Regeln, Datenerfassung, Datenverarbeitung.** (The Subject Headings Index of the Bremen University Library. Rules, Input, Date Processing). (In German). Bremen: Universität Bremen 1978. II, 24 p.

5215 BS 5723: 1979. **Guidelines for the establishment and development of monolingual thesauri.** London: British Standards Institution 1979. 36 p., £ 8,–

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# 1 Theoretical Foundations of Classification

## 12 Conceptual Basis of Classification

See also 5208

5216 Balzer, W., Kamlah, A. (Eds.): **Aspekte der physikalischen Begriffsbildung** (Aspects of physical concept formation) (In German). Theoretische Begriffe und operationale Definitionen. Braunschweig/Wiesbaden: Friedr. Vieweg & Sohn 1979. 255 p.
12 Papers of a colloquy held at Osnabrück, fall 1977 on (1) the logical aspect of concept formation, (2) the methodological one, (3) the special concepts of space and time, (4) the special concepts of mechanics. 5217 Balzer, W.: Logische versus physikalische Definitionen in der physikalischen Begriffsbildung. 5218 Heidelberger, M.: Über eine Methode der Bestimmung theoretischer Terme. 5219 Majer, U.: Sind "physikalische Begriffe definierbar"? 5220 Janich, P.: Physikalische Begriffsbildung gegen das "Prinzip der methodischen Ordnung". 5221 Ludwig, G.: Axiomatische Basis und physikalische Begriffe. 5222 Düsberg, K. J.: Zur Zeitmessung. 5223 Mainzer K.: Stetigkeit und Vollständigkeit in der Goemetrie. 5224 Pfarr, J.: Zur Eindeutigkeit der Zeit in der Protophysik. 5225 Schmidt, H.-J.: Zur Charakterisierung des euklidischen Raumes durch Gebiete und Transporte. 5226 Kamlah, A.: Die Bedeutung des d'Alembertschen Prinzips für die Definition des Kraftbegriffs. 5227 Mayr, D.: Zur Strukturart der allgemein-nichtrelativistischen Punktmechanik. 5228 Tetens, H.: Der Status des Massen- und Kraftbegriffes in einer technik-orientierten Interpretation der klassischen Mechanik.

5229 Haman, P.: **The attributive and occasional nature of the predicate of technical informatics.** (In Czech). In: Knižn. a ved. inform. 10 (1978) No. 5, p. 209–213
Elementary information as the smallest semantic unit of information has the structure "concept–concept". Depending on whether or not the content of the second concept is included in the content of the first concept, one may discriminate between information with a definitive predicate and information with an occasional predicate. These two kinds of information can be discriminated by features of their having an excessive nature, of their being characterised with quantors, and by their communication function. (Orig. abstr., mod.)

5230 Laine, H., Maanavilja, O., Peltola, E.: **Grammatical data base model.** In: Inform. Systems 4 (1979) No.4, p. 257–267
A model for describing the data base at the conceptual (logical) level is presented. The philosophy underlying the model is based on the concepts of entity, descriptor, property association and relationship. The model includes a temporal dimension as a fundamental component. Both the data base and its logical schema are related to time. The logical schema, which also contains the constraints for the integrity of the data base, is regarded as a data base itself. A data base is regarded as a collection of statements in a specific Assertion Expression Language. The grammar of this language and the role of the logical schema as part of this grammar are discussed. (Author)

5231. Nowakowska, M.: **Fuzzy concepts: Their structure and problems of measurement.** In: Communication & Cognition 12 (1979) No. 3/4, p. 321–330, 8 refs.
This paper deals with the problem of measurement of fuzzy concepts, that is, of an empirical access to the membership functions of fuzzy sets representing concepts. Two classes of concepts are considered. Firstly, the analysis concerns the concepts which possess a certain internal structure (as is the case for most concepts in the social sciences, especially those on a higher level of generality). A formalism is introduced to describe the structure of such concepts, and it is shown how the theory of psychological tests provides the methodology of construction of measurement tools. Secondly, the analysis concerns fuzzy concepts connected with classification schemes, especially such

schemes for which it is meaningless to speak of the notion of the true category of an object, and error in classification. (Author)

5232 Schwarz, D. S.: **Naming and referring. The semantics and pragmatics of singular terms.** Berlin–New York: W. de Gruyter 1979. 196 p., ISBN 3-11-007610-1, DM 72,–
The chapters are concerned with the framework theory of referring, strong and week referring theories, causal theory; a part 2 is concerned with relational attitudes in which the richness condition is introduced, formulated and pragmatically presented. Part 3 theorizes on proper names and treats indexicals and rigid designation. Concludingly the consequences are summarized.

5233 Šerov, I. E.: **Some problems of investigating the object of scientific cognition.** (In Russian). In: Metodol. Voprosy Nauki (1978) No. 7, p. 49–60, 18 refs.

## 15 Psychology and Epistemology of Classification

See also 5420

5234 Broadbent, D. E., Broadbent, M. H. P.: **The allocation of descriptor terms by individuals in a simulated retrieval system.** In: Ergonomics 21 (1978) No. 5, p.343
The results suggest that it is helpful to allow people to classify materials for their own use, that they should benefit from a suggested artificial retrieval device making this possible, and that no great practical problem would arise from the number of terms they would use. (Author, abbr.)

5235 Šmelev, A. G.: **Comparing two models of semantic memory.** In: Vestnik MGU. Psichologija (1978) No.2, p. 37–46 (In Russian) 11 refs.
Description of the results of three experiments comparatively assessing the validity of the cluster and coordinate models of a semantic memory. It is concluded that the cluster models of semantic memory are far more valid than the coordinate ones.

## 16 Development of Science and Classification

5236 Birjukov, B. V., Vorobjev, G. G.: **A thesaurus approach to communication processes and documentary information.** (In Czech). In: Teor. rozvoje vedy 2 (1978) No. 2, p. 69–82

5237 Vjazovkin, V. S.: **On higher forms of classifying natural scientific knowledge.** (In Russian). In; Metodol. Voprosy Nauki (1978) No. 7, p. 39–49, 13 refs.

5238 Whitley, R. D.: **The fragmentation of the sciences: Remarks on the decline of university disciplines as units of knowledge production and evaluation.** In: Communication & Cognition 12 (1979) No. 3/4, p. 363–370, 7 refs.

## 17 Classification Problems

5239 Egorov, Ju. N., Tarail, L. A.: **Interrelation between library classification and classified catalogue from the standpoint of simulation theory.** (In Russian). In: Sist. i. predm. katalogi nauč. bibliotek. Moskva 1978, p. 72–79, 5 refs.

5240 Karlgren, H.: **Viewdata – something to be crazy about?** In: Intern. Classificat. 6 (1979) No. 3, p. 172–176
Information retrieval via an (almost) ordinary home television set as public utility opens up fascinating perspectives. But is it really such a long step forward? The technology is essentially conservative. What makes Viewdata so attractive? Does it, in fact, possess any distinctively innovative traits at all? Is the achievement instead the absence of complications, a T-Ford solution where an established technology is given large-scale low-cost application, now? The author concludes that for better of for worse, Viewdata can make an important impact on technical and social development and well deserves keen attention from information scientists as well as from economists and politicians. (Author)

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5241 Schleichert, H.: **Gong Sun Long.** Ein antiker sprachtheoretischer Text aus China. (An antike linguistic text from China). (In German). In: Conceptus 13 (1979) No. 32, p. 3—22, 16 refs.
The text fragment from the 3rd century before Christ, here for the first time published in German translation treats questions of class logic, the relation between designation and designated, identity and difference, the relation between properties and carrier of properties and finally the proper designating.

5242 Stevenson, G.: **Andreas Schleiermacher's Bibliographic Classification and its relationship to the Dewey Decimal and Library of Congress Classifications.** Urbana, Ill.: University of Illinois Graduate School of Library Science 1978. = Occasional Paper No. 136

## 2. Structure & Construction of CS

### 21 General Questions of Structure

5243 Jabrzemska, E.: **Information on the state of work of the thesauri in the frame of SINTO.** (In Polish). In: Aktual. Probl. Inform. Dok. 23 (1978) No. 6, p. 16—21
On the basis of data collected in the files of the IINTE the existing thesauri are analysed as well as the ones being elaborated also according to the way in which they are used.

5244 Lacroix, M., Pirotte, A.: **Domain-oriented relational languages.** In: Proc. 3rd Conf. on very large Data Bases. Tokyo, Oct. 6—8, 1977. New York: IEEE; **New York: ACM 1977. p. 370—378.**
Rev. in: Computing Reviews 20 (1979) No. 9, p. 383 by D.Lomet.

5245 Probst, M. A.: **Towards a theory of thesauri.** (In Russian). In: Problm. Struktur. Lingv. 1976. Moskva 1978. p. 288—296

5246 Probst, M. A.: **Thesauri in informatics.** ((n Russian). In: Naučno-techn. inform. Ser. 2 (1979) No. 9, p. 14—20, 29 refs.
A thesaurus is considered as a definite structured system of semantic units with a developed set of relations determined in this set of units. Questions of correlations between a thesaurus and different classifications, as well as between different branch thesauri are clarified. The conneections of texts with the problems of thesaurus construction are investigated. (Author, mod.)

5247 Schreiber, H.: **Entwurf einer geschlossenen IRS-Theorie.** (Design of a conclusive theory of information retrieval languages). (In German). In: Dokumentation/Information (1978) No. 41, Pt. I, p. 144—155, 2 refs.
In realizing a gap between the empirical data and abstract theories of IR languages the author looks at such characteristics as the accuracy of indexing and the distribution of descriptor use rate in relation to collection size, thesaurus size and a number of queries. The relationships found are described using the mathematical apparatus of probability and game theories.

5248 Trub, V. M.: **A description language for documents and queries.** (In Russian). Kiev: Inst. Kibernet. AN USSR 1977. 21 p. (Preprint No. 85)
Discussion of the structure of document and query search expressions and their indexing depth.

### 22 Elements and Special Structures of CS

See also 5275

5249 Elrod, J. M.: **Choice of subject headings.** 2nd ed. Metuchen, N.Y.: Scarecrow Press 1978. VIII, 49 p. = Modern Library Practices Series 5. ISBN 0-8108-1087-5

5250 Hess, C. F., Brodda, K.: **On the optimum choice**

of categories for the classification of biomedical data patterns. In: Meth. Inform. Med. 18 (1979) No. 4, p. 222—227

5252 Preschel B. M.: **Encyclopedia article titles as thesauri terms in indexing.** In: Information Age in Perspective. Amer. Soc. Inform. Sci. Ann. Meet. Vol. 41 (1978). White Plains, N.Y.: Knowledge Industry Publ. 1978. p. 264—266

5253 Steinweg, H.: **Specificity in subject headings.** In: Libr. Resources & Techn. Services 23 (1979) No. 1, p. 55—68
The Library of Congress Subject Headings lack specificity which could be improved by using additional adjectives, or other additional information.

5254 Schock, R.: **On classifications and hierarchies.** In: Z. allg. Wissenschaftstheorie 10 (1979) No. 1, p. 98—106, 7 refs.
The nature and functions of classifications are first discussed and the differences between natural and artificial classifications are explicated. It is shown that borderline-case type problems result not from classifications, but from extending them to wider domains. Some methods of solving such problems are considered. The differences between monothetic and polythetic classifications are also taken up. A new treatment of trees as relations and their levels is developed. Certain kinds of hierarchies such as the classificatory, the inclusional, and the structural are then characterized by means of the tree concept. (Author)

5255 Studer, P. A.: **Classification as a general systems construct. III: The significance of hierarchical structure.** In: Information Age in Perspective. Amer. Soc. Inform. Sci. Ann. Meeting Vol 41 (1978). White Plains, N.Y.: Knowledge Industry Publ. 1978. p. 337—340, 24 refs.

### 23 Construction of CS

See also 5215

5256 Craven, T. C.: **A NEPHIS thesaurus for computer generation of permuted cross references.** In: Information Age in Perspective. Amer. Soc. Inform. Sci. Annual Meeting Vol. 41 (1978) White Plains, N.Y.: Knowledge Industry Publ. 1978. p. 79—82, 4 refs.

5257 Lang, F. H.: **Die maschinelle Generierung von Begriffssystemen.** (Machine generation of conceptual systems). (In German). In: Papers of the 12th Intern. Linguistics Conference, Wien 1977. p. 160
Words and word combinations are names of concepts. Thinking is a continuous process of establishing links among concepts. Along with logical relations between concepts there also exist formal relations between names (e.g., synonyma) as well as between names and their grammatical characteristics (e.g., gender, flexion, etc.). All these links and relations can be reduced to the following relation types: symmetrical, inversive and transitive, which constitute an algorithmic base with a classical hierarchical organisation. The latter, if supplemented with sufficiently rich associative correspondencies, can be utilised in an algorithm for machine generation of conceptual and lexical systems. This alrorithm provides for consecutive, exact and exhaustive program operation, flexible development and expansion, as well as for the optimal economic performance (the output information comprises up to 30% of the input one). The algorithm was implemented in the program "Thesaurus and Linguistic Integrated System", used world-wide. (Author)

5258 McNeill, J.: **Structural value: a concept used in the construction of taxonomic classifications.** In: Taxon 28 (1979) No. 5/6, p. 481—504

5259 Mildner, H.: **Zur Entwicklung von Informationsrecherchesprachen (IRSP) für Dokumenten-Informationsrecherchesysteme im ISWTI.** (Development of IR languages for document retrieval systems in the ISTIS.) (In German). In: Dokumentation/Information (1978) No. 4, Pt.2, p. 33—42, 10 refs.

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5260 Schwartz, C., Noreault, T.: **Human-assisted thesaurus generation: a first step.** In: Information Age in Perspective. Amer. Soc. Inform. Sci. Ann. Meeting Vol. 41 (1978). White Plains, N.Y.: Knowledge Industry Publ. 1978. p. 291—294, 3 refs.
Description of experiences made with a data-base of Inspec of 7000 documents of one number of Physics Abstracts.

5261 Sokolov, A. V.: **Some problems in the type design of IR thesauri.** (In Russian). In: Struktur i. Prikl. Lingv. (1978) No. 1, p. 172—181, 6 refs.
The type design should be such that it allows for compatibility among different thesauri. An IR thesaurus "plot" is introduced to mean the scheme of facets and lexical blocks, representing the thesaurus contents.

## 24 Relationships

See also 5256, 5387

5262 Busch, J.: **A method for evaluating the multiple relations between subject descriptors — related terms in the Thesaurus of Engineering and Scientific Terms. A pilot study.** In: Information Age in Perspective. Amer. Soc. Inform. Sci. Annual Meeting, Vol. 41 (1978). White Plains, N.Y.: Knowledge Industry Publ. 1978. p. 59—62

5263 Ciganik, M.: **Natural classifications of textual data and structures.** (In Czech). In: Československá Informatika 20 (1978) No. 12, p. 306—311, 14 refs.
The present trend in the world literature indicates a development of semantic networks as natural forms of classification. It is shown that the natural text of any language has an implicit relational structure which can be expressed by phase, facet and contextual 'relator'. The dictionary of such related terms is used as an analytical computerised dictionary. This method is also very efficient in the case of inflecting languages, such as the Czech and Slovak languages. The classification specificity is achieved by means of the richness of the relational dictionary and by the use of algorithms of feature dependency grammar. An original algorithm for the creation of the semantic network as the most convenient natural classification structure is presented. (Author)

5265 Dromey, R. G.: **A linked-path connection table with substructural atom-ordering.** In: J. Chem. Inform. Computer Sci. 19 (1979) No. 1, p. 37—42, 11 refs.
Description of a new connection table which is based on the functions of the atom and which simplifies the retrieval of substructures.

5266 Eichman, T. L.: **Subject heading syntax and "natural language" nominal compound syntax.** In: Information Age in Perspective. Amer. Soc. Inform. Sci. Vol. 41 (1978). White Plains, N.Y.: Knowledge Industry Publ. p. 126—129, 2 refs.
Study of the structure and the syntax of subject headings as natural language access tools of users.

5267 Huber, O.: **Die Erklärung der Non-Transitivität von Pseudo-Ordnungsrelationen.** (An explanation of the non-transitivity of pseudo-relations of order.) (In German). In: Conceptus 13 (1979) No. 32, p. 23—46, 22 refs.
Pseudo-relations of order which are assumed to have the same properties as order relations play an important role in the social sciences in forming judgements. A number of reasons for their non-transitivity are discussed and three possibilities of explanations are examined.

## 26 Notation, Codes

5268 Schuler, G., Kayser, K., Burkhardt, H.-U.: **Ein System von Zusatznotationen der histologischen Tumordokumentation mittels ICD-O.** (A system of additional notations for histological tumor documentation with ICD-O) (In German). In: Methods Inform. Med. 18 (1979) No. 2, p. 79—83, 6 refs.

## 27 Compilation, Updating, Storage & Maintenance of CS

See also 5393

5269 Iljon, A.: **Logiciel de gestion des thésauri multilingues: le logiciel ASTUTE.** (Software for the maintenance of multilingual thesauri: the software system ASTUTE) (In French). In: Problèmes informatiques des systèmes documentaires. Journées de formation 1978. Paris: AFCET 1978. 5, 6 p.
General description of the Automated System for Thesaurus Updating, Testing and Editing (ASTUTE) developed at the computer center of the European Communities for monolingual and multilingual thesauri. It is composed of 12 programmes.

5270 Lebelt, W.: **Rechnerunterstützte Wortselektion aus Texten als Teil der Thesauruspflege.** (Automated selection of words from texts as part of thesaurus maintenance) (In German). In: Dokumentation/Information, 1978. No. 41, Pt. I, p. 135—143.
Discussion of the semantic and organisational aspects of thesaurus maintenance. The program used is compatible with the AIDOS software package.

## 28 Compatibility & Concordances of CS

See also 5246, 5324

5271 Anan'eva, L. I., Galina, M. B. et al.: **On automating nomenclature translation.** (In Russian). In: Vopr. inform. teorii i praktiki (1978) No. 32, p. 12—18, 17 refs.
A "name-structure" automatic translation algorithm for the translation of the names of chemical compounds into the corresponding structural formulae and vice versa was developed embracing the items of several nomenclatures current in chemical publications.

5272 Wåhlin, E.: **Der AR-Komplex — Spezialklassifikationssysteme in Kombination mit einem gemeinsamen Referenzsystem.** (The AR-Complex — special classification systems in combination with a common reference system) (In German). In: DK-Mitt. 23 (1979) No. 1—2, p. 1—3, No. 3—4, p. 5—9.
Description of the "AR-Komplex" and examples from different fields, such as building, commodity classification, classification of professions a.o. Comparison of the AR-Komplex with some other systems and graphical display of the AR-Komplex.

5273 Lestang, Ph.: **Harmonising international commodity classification: an urgent task.** In: Forum Ware 7 (1979) No. 3—4, p. 151—152
The development of international trade demands measures to overcome the individualism of systems construction and use. The paper — presented at the International Symposium on Commodity Science and Technology, Gent/Belgium, Sept. 1979 — shows a way out of the present diversity.

5274 Mišin, V. A.: **Principles and methods of automatic reclassification.** (In Russian). In: Bibliotekoved (1979) No. 3, p. 56—68, 14 refs.
The different possibilities of notation conversion of one system into another are considered.

## 29 Evaluation of CS

See also 5243

5275 Adanjaeva, R. V., Govoruchina, A. M., et al.: **Evaluation of work of a specialized factographic automated information retrieval system on chemistry.** (In Russian). In: Naučno-techn. inform., Ser. 2 (1979) No. 9, p. 21—24, 5 refs.
The Automated Information Retrieval System (AIRS) "Ftor" uses for indexing and retrieval of information on chemical compounds and reactions a specially developed descriptor language with lexical units that are not words but structural fragments of chemical compounds and kinds of chemical bonds changing in the course of reactions. The retrieval precision and completeness data of this system are presented. (Author, abbr.)

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5276 Cote, J.-P.: **PRECIS et le systeme de vedettes-matières de la Library of Congress: vers une étude comparative globale.** (PRECIS and the Library of Congress subject headings system: towards an all-encompassing comparative study.) (In French). In: Document. et Bibl., CAN 25 (1979) No. 1, p. 11–21, 5 refs.
Recalls the different facets constituting documentary analysis and the inherent problems, and explains the main characteristics of PRECIS, through a comparison of its main semantic and syntactic elements with those of the Library of Congress system of subject headings. This gives a clear picture of the limits of the latter, as well as of its potential for adaptation and evolution.
(Author)

## 3 Classing and Indexing (Methodology)

### 31 Theory of Classing and Indexing

See also 5248, 5293

5277 Bivins, K.: **Indexing and universals.** In: Information Age in Perspective. Amer. Soc. Inform. Sci. Annual Meeting Vol. 41 (1978). White Plains, N.Y.: Knowledge Industry Publ. 1978. p. 35–37
Definition of the concept 'universals' in indexing languages, as common elements for all languages regarding both structure and meaning. Three aspects of universality are discussed and application cases in indexing are considered.

5278 Briner, L. L.: **A mathematical theory of indexing.** In: Information Age in Perspective. Amer. Soc. Inform. Sci. Annual Meeting, Vol. 41 (1978). White Plains, N.Y.: Knowledge Industry Publ. 1978. p. 55–58, 3 refs.
The theory proposed combines information theory with a theory of English grammar which defines the components and their relations. From this a mathematical theory of indexing can be obtained.

5279 Fraser, W.: **Literary, user, and logical warrants as indexing constraints.** In: Information Age in Perspective. Amer. Soc. Inform. Sci. Annual Meeting Vol. 41 (1978). White Plains, N.Y.: Knowledge Industry Publ. 1978. p. 130–132, 10 refs.
Indexing constraints are occurring on different levels of the process. A theory is developed which has implications on the construction, evaluation, interpretation and retrieval in indexing.

5280 König, E.: **Kontrolliertes Vokabular — freie Textsuche: ist das ein Widerspruch?** (Controlled vocabulary—free text search: is this a contradiction?) (In German). In Moderne Systeme und Informationsnetze und die Zuverlässigkeit der Information. Europ. Reg. Kongr. Bibl.wes. u. Dok. Agrarwiss. Hamburg 1978. München etc.: K. G. Saur 1978. p. 197–206, 4 refs.
Experiences with Food Science and Technology Abstracts show that it is possible to index with controlled and free terms for an effective retrieval.

5281 Machmudov, A. Ch.: **The degree of detail in document indexing and aspects of output analysis and interpretation during computer-based information retrieval.** (In Russian). In: Primenenie nov. metodov pri razrab. IPJA po geol. neft. i gasov. mostorožd. Leningrad 1978. p. 77–104, 4 refs.
Discussion of the interrelated issues of required depth of document indexing and an optimal method for search output analysis. Makes a case for the highest possible objectivity in indexing. Presents guidelines for the search output analysis: fixing information losses and noise due to the low quality of "externally" produced secondary document input, and renouncing attempts to attribute causes of information loss or noise in complicated cases to a single factor, which pursue the same aim, namely improving the objectivity of the search analyst's judgments.
(Author)

5282 Smetaček, V.: **The compactness of a large set of headings with regard to the collection they describe.** (In Czech). In: Tech. Knihovna 22 (1978) No. 9, p. 239–248, 9 refs.
A set of headings is generally regarded as being more compact if it contains fewer headings which describe only a few documents or entries, or if fewer documents or entries belong under headings with an above average cumulation. A simple statistical procedure for detecting the degree of index or catalogue compactness is proposed. This degree is determined as a ratio of the number of entires collected under headings with frequency typical for the given system, and of the number of entries collected under headings with extremely high or extremely low cumulation of entries. The compactness ratio may become an additional method of evaluating indexes and catalogues. (Author)

5283 Wilson, P.: **The end of specificity.** In: Libr. Resources & Techn. Services 23 (1979) No. 2, p. 116–122, 15 refs.
A critical comment on the recently announced subject cataloguing practice at the Library of Congress, calling for systematic duplication of entries at specific and generic levels. With this new rule the Rule of Exclusively Specific Entry will loose its strength and may finally be abandoned.

### 32 Subject Analysis

See also 5263, 5264, 5417

5284 Becker, N., Osterburg, G.: **Automatische Generierung von Programmen zur lexikalischen Analyse.** (Automatic generation of lexical analysis programs.) (In German). In: Angew. Inform. 20 (1978) No. 11, p. 489–493, 10 refs.
Description of a program generating system in Assembler which is used for lexical analysis and pattern matching, as well as a descriptive language for input data of a regular expressions generator.

5285 Billmeier, R.: **Konzeption einer automatischen Inhalts- und Strukturanalyse für ein Information-Retrieval-System.** (Conception of an automatic content and structure analysis for an information retrieval system.) (In German). In: Sprache u. Datenverarb. 2 (1978) No. 2, p. 103–114, 7 refs.
The paper presents the analysis conception for CONDOR which is basically independent of the language to be analysed. It processes lexical information for function-words and verbs and information about content-words produced by analysis. The results are stored in a structure tree containing the complete set of analysable information about a sentence. The parsing takes place in two large steps by means of a "transition network grammar".
(Author abbr.)

5286 Duewer, D. L., Kowalski, B. R.: **Elucidating the structure of some clinical data.** In: Computers and Biomedical Research 11 (1978) No. 6, p. 567–580

5287 Fugmann, R., Kusemann, G., Winter, J. H.: **The supply of information on chemical reactions in the IDC system.** In: Inform. Proc. & Management 15 (1979) No 6, p. 303–323, 18 figs., 61 refs.
The possibilities and limitations of chemical reaction names as the basis for retrieving literature dealing with reaction types are briefly reviewed, as well as the capability of a mere substructure search in a file of reactants and products. It is demonstrated that reaction indexing ideally should be based on the identification of the reaction sites of the molecules involved, as well as on the representation of various kinds of relations between these reactive centers. The GREMAS reaction indexing of IDC is discussed as an example. Before a chemist can request information on reaction types that appear promising for a certain target molecule, he must be aware of their existence. The task of computer-assisted synthesis design is to submit suggestions of conceivable synthetic pathways to a target structure and so to alert the chemist to syntheses of which he had not yet been aware. The "reverse retrieval" technique is demonstrated to constitute a fundamental principle for this kind of information supply. If

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sufficiently developed and assisted by an effective system for the documentation and classification of reaction types, it can provide suggestions for syntheses at a considerable efficiency without requiring completion by additional principles. The IDC system of (Sub-)Structure search seems to be able to serve this purpose too, due to its flexibility, economics, and precision. The reverse retrieval offers solutions to a number of problems hitherto unresolved in information science.

**5288 Ikeda, T.: On semantic and syntactic analysis of Japanese sentences.** (In Japanese). In: Densi gizyutsu sogo kenkyusyo iho 42 (1978) No. 6, p. 505−515.
Proposal of a new method for the analysis and conceptual representation of Japanese sentences. The analyzing system is composed of four parts: (1) lexical analyser, (2) reformation module, (3) transformation module, and (4) dependency analysing module. The analyser proceeds by envoking suitable rules attached to the words. (Author, abbr.)

**5289 Pejtersen, A. M.: The meaning of "about" in fiction indexing and retrieval.** In: Aslib Proc. 31 (1979) No 5, p. 251−257, 7 refs.
Review of some recent contributions to the topic of aboutness and report on studies of user/librarian conversations in Danish public libraries which revealed the multi-dimensionality of this problem. Four dimensions were dominant: subject matter, frame (time, place, etc), author's attitude/intention, and accessibility.

**5290 Überla, K. K.: Methodologische Grenzen der Analyse medizinischer Aktivitäten** (Methodological limitations in the analysis of medical activities). In: Meth. Inform. Med. 19 (1980) No. 1, p. 7−10

### 33 Classing and Indexing Techniques

**5291 Aristov, A. A. et al.: On the indexing of information sources on electrical measuring instruments for computer-based information processing systems.** (In Russian). In: Ustrojstva i sistemy avtomatizir. obrab. inform. Penza, 1978, No. 4, p. 14−18, 2 refs.

**5292 Bhattacharyya, G.: POPSI. Its fundamentals and procedure based on a general theory of subject indexing languages.** In: Libr. Science Slant Doc. 16 (1979) No. 1, p. 1−34, 15 refs.
Aims at examining the fundamentals and procedure of POPSI (Postulate-based Permuted Subject Indexing) on the basis of an experiment. For this purpose, (1) enumerates the empirical facts of experience generalised from the experiment; (2) explains the fundamentals — Idea, Information, Informative formulation, Indicative formulation, Subject, Groups of subjects, Classification of subjects; Organizing classification and Associative classification; Structures of subjects; Semantic structure; Elementary structure; and Syntactic structure — forming part of the intellectual foundation of POPSI. Formulates the set of general postulates pertaining to the elementary and syntactic structures of compound subjects. Marks out the essential attributes of subject indexing languages. Defines POPSI in terms of the steps involved in the procedure. Concludes as follows: The idea of a purpose-oriented, postulate-based organising classification serving as the source of derivation by permutation of all possible associative classifications to supplement it in a deminite context, is the characteristic feature of POPSI. Naturally it has a highly generalised, hospitable, versatile, and therefore adaptable intellectual foundation capable of guiding the formulation of consistent specific procedures of subject indexing for retrieval of (1) information qua information, (2) information about the location of a body of information in the text of a document, and (3) information about the surrogates of documents. POPSI is amenable to computerisation. The potentiality of POPSI, as discovered till today, suggests that it can be regarded as an all-purpose indexing procedure so far as "information retrieval" is concerned. (Author)

**5293 Hunt, R.: The subject catalogue in Australian academic libraries PRECIS, LCSH and KWOC and the findings of the Wollongong University subject catalog study.** In: Austral. Acad. and Res. Libr. 9 (1978) No. 2, p. 61−70, 19 refs.
A study of the indexing systems mentioned lead to the conclu-

sion that PRECIS would be preferable against all of the others, because of its greater convenience in use and since it is considered to be cheaper.

**5294 Risko, A.: Context and bibliographic classification.** (In Slovak). In: Knižn. a ved. inform. 10 (1978) No. 5, p. 196−199.
Discussion of problems of bibliographic classification from the point of view of subject index production. (Author, mod.)

**5295 Soergel, D.:** Book review of **E. Svenonius (Ed.): String Indexing. 3 vols.** (NEPHIS, PRECIS, Relational Indexing) London, Ont.: School of Libr. & Inform. Sci. University of Western Ontario 1977. In: Libr. Quarterly 49 (1979) No. 4, p. 465−466

### 34 Automatic Classing and Indexing

**5297 Cahn, D. F., Herr, J. J.: Automatic document classification based on expert human decisions.** In: Information Age in Perspective. Amer. Soc. Inform. Sci. Annual Meeting. Vol. 41 (1978). White Plains, N.Y.: Knowledge Industry Publ. 1978. p. 63−66
Results of experiments with data bases in the field of energetics.

**5298 Hoshino, M.: An automatic method for extraction of keywords from titles of documents.** (In Japanese). In: Daj 14 kai syoho kagaku gizyutsu kenkyu syukai happyo rombunsyu (1977) p. 203−212, 4 refs.
The system used included (1) a table of character kinds, (2) a table of middle-matching and backward-matching words, and (3) a stoplist. The method was used to extract 1930 keywords from 834 titles. (Author, abbr.)

**5299 Jakušin, B. V.: Algorithmic indexing in information systems: problems and methods.** (In Russian). Moskva: Nauka 1978. 144 p.
Along with semiotic and information aspects of the problem concrete methods characteristic of certain kinds of algorithmic indexing are described. (Author, abbr.)

**5300 Janos, J.: Experimente zur automatischen Indexierung und Textverdichtung in der CSSR.** (Experiments in automatic indexing and text compression in Czechoslovakia). (In German). In: Dokumentation/Information, 1978. No. 40, Pt. 1, p. 88−102, 3 refs.

**5301 Mater, E.: Zur automatischen Selektion faktographischer Angaben.** (On automatic selection of factographic data.) (In German). In: Dokumentation/Information, 1978. No. 41, Pt. 2, p. 124−128, 14 refs.
Examination of possibilities to select factographic data by analogy with automatic indexing. Factographic data are determined as semantic groups with an ordered structure.

**5302 Naumann, P.: AID: an application program pack for automatic indexing.** (In Russian). In: Probl. MSNTI. Inform. Upr. Sistemy (1978) No. 3, p. 20−34.
Examination of the AID indexing method. Description of stages of processing of word combinations as names of concepts in automatic indexing. Analysis of the problems of synonymy, of processing new word forms, of text size and of syntagmatic analysis. (accord. orig. abstr.)

**5303 Ohlgren, T. H.: Computer indexing of illuminated manuscripts for use in medieaval studies.** In: Computers and humanities 12 (1978) No. 1−2, p. 189−199.
Description of the automatic indexing program of manuscripts at the Bodleian Library at Oxford.

**5304 PIAF DOC: an indesing and text processing system.** (In French). In: Bull. Inform. BNIST (1978) No. 3, p. 4−6
At the French Bank of Political Information and News (BIPA) an improved automatic indexing system called PIAF DOC was installed substituting the former MISTRAL. Description of features of this system.

**5305 Wysotzky, F., Selbig, J., Jarosch, H.: Über Mög-**

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lichkeiten des Einsatzes adaptiver logischer Klassifikatoren bei Rechercheproblemen. (On the possibilities of using adaptive logical classifiers in information retrieval.) (In German). In: Dokumentation/Information 1978. No. 41, Pt. 2, p. 13–24
A meta-algorithm is offered and described, intended for automatic compilation of indexing algorithms.

5306 Zimmermann, H.: Probleme der automatischen Indexierung von Fachtexten am Beispiel juristischer Dokumente. (Problems of automatic indexing of special texts with reference to legal documents.) (In German). In: Med. Inform. u. Statist. 4 (1978) p. 112–121, 4 refs.
Report on the experience in automatic indexing by governmental systems of legal and text information in the FRG. Description of PASSAT and STAIRS software programmes used in the systems. Examination of CONDOR and some other software systems.

## 35 Automatic Ordering

See also 5114, 5118

5307 Chung-Shu Yang: Record block allocation for retrieval on secondary keys. In: SIGIR Forum 13 (1978) No. 1, p. 83–108, 19 refs.
Treats one aspect of the problem of data file organisation associated with the physical allocation of records in direct-access memory.

5308 Croft, W. B.: A file organisation for cluster-based retrieval. In: SIGIR Forum 13 (1978) No. 1, p. 65–82, 13 refs.
Description of a file organisation concept based on the use of semantic clusters of documents. A method is proposed oriented toward a retrieval algorithm which envisages an inverted direction of search in the semantic clusters.

5309 Hammad, P., Raviart, J.-M.: Formulation of choice criteria for file organisations. In: Information Systems 3 (1978) No. 2, p. 123–130
Presents criteria for determining, among file organisations, the one which requires the least cost. Defines a 'cost' function for pure sequential file organisation, chained-sequential, indexed pure sequential, random, inverted and tree-like organisation. The most advantageous organisation results from a comparison of these different costs. (Author, abbr.)

5310 Husidman, V. B.: Problem of retrieval file structure optimization according to retrieval time criterion. (In Russian). In: Naučno-techn. inform. Ser. 2 (1979) No. 12, p. 11–15, 9 refs.
Direct, inverse and dual patterns of file organisation are discussed, their comparative analysis and retrieval file evaluation for each of them is made. A probability model of retrieval in a file with dual organisation is proposed. On the base of this model the problem of optimizing a dual file according to the time criterion is solved. (Author, abbr.)

5311 Kollias, J. G.: File organisations and their reorganisation. In: Information Systems 4 (1979) No. 1, p. 49–54, 20 refs.
Discussion of different approaches to physical database reorganisation. Presentation of an integer programming formulation of the problem of deciding on the optimal degree of secondary file structuring for data processing requirements exhibiting periodic variations, known in advance. (Author, abbr.)

5312 Mazur, Z.: Inverted file organisation in the information retrieval system based on thesaurus with weights. In: Inform. Proc. & Management 15 (1979) No. 5, p. 227–234, 3 refs.
The inverted file structure is often used to organize data in the information retrieval system. When the hierarchy relation on the set descriptors and weights of descriptors in document description would be taken into account, the conventional concept of the inverted file may be extended. Properties and operations on inverted files, which are used in system based on thesaurus with weights, are studied in this paper. (Author)

5313 Tanaka, K. et al.: Organisation of quasi-consecutive retrieval files. In: Information Systems 4 (1979) No. 1, p. 23–33, 12 refs.
Introduces the quasi-consecutive retrieval file organisation technique (QCR), an extension of Ghosh's consecutive retrieval (CR) file organisation in which all records pertinent to a query are consecutively stored on linear storage locations. (Author, abbr.)

## 38 Index Generation Programming

See also 5256, 5284, 5302

5315 Bird, Ph. R., Clark, J. E.: Computer production of the Programme Index at the BBC (British Broadcasting Corp.). In: Program 13 (1979) No. 2, p. 58–72
For the replacement of a card index by a computer-printed index the COIN package was chosen, a suite of 9 programs for maintaining files and printing indexes in a variety of formats. It was used to produce 5 indexes.

5316 Crennell, K. M., Marsh, E.: Computerisation of the Rutherford Library Catalogue. In: Program 13 (1979) No. 2, p. 73–84, 6 refs.
For the computerisation an existing program package, FAMULUS, was used. In addition to the 2 catalogue sequences, there is access to the KWIC index, serving as a subject index to the specialised holdings. (From orig. abstr.)

5317 Hines, Th. C., Winkel, L.: Microcomputer-aided production of indexes. In: Indexer 11 (1979) No. 4, p. 198–201, 3 refs.
Recent experience in working with microcomputers has led us to believe that they will play a major role in indexing in the future. They will serve both as production tools in themselves and as data collecting devices for indexes produced by larger computers. (Author, abbr.)

## 39 Evaluation of Indexing

See also 5473

5319 Ribeiro Pinheiro, L. V.: Measures of indexing consistency and inconsistency. (In Portuguese). In: Ci. da Inform., BRA 7 (1978) No. 2, p. 109–114, 11 refs.

## 4 On Universal Systems

## 42 On the Universal Decimal Classification, UDC

5320 Gul'a, J.: ARDIS-EC information retrieval strategy, index languages and agronomics information users. (In Czech). In: Knižnice a Vedecké Informacie 10 (1978) No. 6, p. 254–258
Problems connected with the application of the UDC as the index language for automated processing of information are outlined. In those cases where the UDC is not sufficient, it had to be combined with samples taken from natural language.

5321 Hindson, R.: Reflections on the utilisation of the Universal Decimal Classification. In: Aslib Proc. 31 (1979) No. 6, p. 305–311, 5 refs.
From a rich and long experience with the UDC the author shows where and how this classification system can best serve for a number of purposes. He concludes with the statement that the UDC must be used in association with other approaches if it and they are to reach their full potential in a computer-based system.

5322 Orlinkova, O. L., Rjabova, A. M.: Indexing by UDC of information materials on chemical analysis. (In Russian). In: Nauč. i techn. biblioteki SSSR (1978) No. 10, p. 24–27
Description of experiences gained at the Research Institute of Information and Technico-Economic Studies in Chemical Industry.

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5323 Ricarti Ribera, R.: **The Universal Decimal Classification in the field of computers and reprographics.** (In Catalan). In: Biblioteconomia 33 (1976) No. 80, p. 81 – 85
Justification of the use of the UDC in computerized information handling and a number of suggestions for the improvement of UDC use, especially the publication of abridged tables in more languages and the improvement of the UDC maintenance system.

5326 Traissac, E.: **La valeur documentaire de la C.D.U.** (The documentary value of the UDC.) (In French). In: A.B.F. Bull. Inform. (1979) No. 102, p. 11 – 15
Reports on usages of the UDC made in libraries. Indications of failures of the UDC and means for overcoming them.

5327 Zajdberg, Ch. M.: **Main lines of improvement of the Universal Decimal Classification.** (In Russian). In: Nauč. i techn. Biblioteki SSSR (1978) No. 8, p. 25 – 29
An investigation has been carried out on the basis of Extensions and Corrections to the UDC, Ser. 8 and 9 (No. 1), 1970–1975. Typical tendencies, advantages and drawbacks of improving the UDC are revealed and recommendations for eliminating them are made. (Acc. orig. abstr.)

## 43 On the Dewey Decimal Classification, DDC

See also 5242

5328 Sengupta, I. N.: **Some anomalies in the Dewey Decimal Classification Scheme.** In: Annals of Libr. Sci. & Doc. 24 (1977) No. 3 – 4, p. 144 – 146

5329 Sengupta, I. N.: **Some observations on the forthcoming 19th edition of the Dewey Decimal Classification (DDC) scheme.** In: Intern. Classificat. 6 (1979) No. 3, p. 170 – 172, 7 refs.
The paper critically reviews some to the recommendations of the Committee on "DDC Additions, Notes and Decisions" for its 19th edition. It is observed that the policy of following the principle of continuity and integrity of numbers has not been consistently followed in cases of class numbers 900, area notations -41 and -42 and total revision of schedules for the life sciences (560–590). While commenting critically on the recommendations made by the DDC Editorial Policy Committee in respect of the above mentioned entries, the paper also discusses the great difficulties libraries using the DDC will have to face for reclassification of a cognizable area of their collections (Author)

## 44 On the Library of Congress Classification, LCC and LC Subject Headings

See also 5242

5330 Perreault, J. M.: **Library of Congress Subject Headings: a new manual.** In: Intern. Classificat. 6 (1979) No. 3, p. 158 – 169, 12 refs.
Many of the failings of Library of Congress Subject Headings are examined in the context of L. M. Chan's new manual on that influential system. While the system itself is strongly criticized, the manual is highly recommended as a guide to practice; the major criticism directed at the latter is that it only sporadically attempts to be critical of the system. (Author)

5331 Rodriguez, R. D.: **Use of alternative class numbers for bibliography in the Library of Congress Classification System.** In: Libr. Resources & Techn. Services 23 (1979) No. 2, p. 147 – 155, 11 refs.
The Library of Congress now provides a general works number for most of the bibliographies it catalogs, in addition to assigning a complete call number in Class Z. The alternative class number for bibliographies suggests the possibility of more representative classification of bibliogrpaphies and may enhance retrieval and increase use. After a brief historical and theoretical introduction, several options for employing an alternative class number are explored, and some problems that will arise are outlined.
(Author)

## 45 On the Bliss Classification, BC

5332 Hope, D. W.: **(Commentary to the new Bliss Classification).** In: Catalogue & Index (1979) No. 54, p. 11 – 12

5333 Maltby, A., Gill, L.: **The case for Bliss.** Modern classification practice and principles in the context of the Bibliographic Classification. London: C. Bingley; Munich–New York--Paris: K. G. Saur 1979. 142 p., ISBN 0-85157-290-1
This introduction into the work with the revised Bliss classification contains the following chapters: The Bibliographic Classification as devised by Bliss. Subsequent development and revision of the BC. General Bibliography. Guide to classifying by BC. The Tavistock reclassification project. Libraries using BC: numbers, comments and problems. Appendix: Some suggestions for future BC development. – Index.

5334 Ramsden, M. J.: **A new life for Bliss.** In: Aust. Acad. Res. Libr. 9 (1978) No. 4, p. 210 – 214, 11 refs.
Summary of the new contributions in the new Bliss classification which may become an alternative to the inadequate systems still in use.

## 46 On the Colon Classification, CC

5335 Kumar, P. S. G.: **Practical Classification: I. Colon Classification.** New Delhi: Metropolitan Book Co. 1978. 285 p. Rs 55. Book review by Mohinder Pratap Satija in Herald Libr. Sci. 18 (1979) No. 1–2, p. 151 – 152

5336 Shepherd, M. A.: **Colon Classification as a basis for automated full text retrieval.** (PhD Thesis). London, Ont.: University of Western Ontario 1978. 281 p.

## 47 On the Library-Bibliographical Classification, LBC (BBK)

5337 Dorofeeva, N., Serebrjannikova, V.: **On the introduction of the Library-Bibliographical Classification in libraries.** (In Russian). In: Bibliotekar' (1978) No. 9, p. 48 – 53
Methodological recommendations for the conversion of public library collections and catalogues to LBC.

5338 Fadičeva, E. N.: **On the Problem Council "Library-Bibliographical Classification and Other IR Languages".** (In Russian). In: Sov. Bibliotekoved. (1978) No. 5, p. 106 – 108
Information on a meeting of the Problem Council, held on March 10, 1978 concerning the Draft Second Edition of the LBC.

5339 Gubar', S. D. (Ed.): **Problems of introducing Library-Bibliographical Classification.** (In Russian). Moskva 1978. 104 p.
The work is dedicated to the memory of O. P. Reslenko and includes two contributions by her: "Structural analysis of LBC tables" and "Formalisation of indexing and optimisation of name authority lists in LBC schedules."

5340 Naumann, C., Schulz, E., Vogel, O.: **Die Adaptation der Teile Marxismus-Leninismus, Philosophie und Soziologie der sowjetischen BBK für die mittlere Ausgabe der DDR.** (The adaptation of the Marxism-Leninism, Philosophy and Sociology Sections of the Soviet LBC for the DDR Medium Edition). (In German). In: Zentralbl. Bibl.wes. 93 (1979) No. 1, p. 13 – 17, 6 refs.
The adaptation of the LBC for GDR libraries was most difficult in the Sociology section where considerable terminological problems occurred.

5341 Panov, A. A.: **An important requirement to the Library-Bibliographical Classification in a centralised library system environment.** (In Russian). In: Sbornik nauč. true./Bibl. Akad. Nauk SSSR i AN sojuznych resp. (1978) No. 2, p. 5 – 17, 7 refs.

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The important requirement meant is the property of the LBC to be compatible with the other subject indexing languages used within the academy.

**5342 Pospichalova, E.: Use of the Soviet Library-Bibliographical Classification at the Brno University Library.** (In Czech). In: Techn. knihovna 22 (1978) No. 7–8, p. 197–204, 4 refs.
Description of a classified catalogue arranged by the LBC. Discussion of three phases in introducing this catalogue. The LBC tables were modified according to the LBC use experiences of the Bratislava University Library.          (Accord. org. abstr.)

**5343 Suchmaneva, E. G., Nikolaeva, T. V.: Optimisation of the Library Bibliographical Classification and perfection of the quality of the systematic catalogue.** (In Russian). In: Sbornik nauč. trud./Bibl. Akad. Nauk SSSR i AN sojuznych resp. (1978) No. 3, p. 171–188, 3 refs.
Discussion of the advantages of the LBC.

**5344 Suchorukova, S. M., Al'tmuller, V. A.: The treatment in the LBC of some modern problems of Marxist-Leninist political economy of the communist mode of production.** (In Russian). In: Sist. i predm. katalogi nauč. bibliotek. Moskva 1978, p. 88–108, 22 refs.
Proposals for improvement of the LBC due to the development of political economy itself.

**5345 Vitševskaja, E. F., Voloradskaja, L. M.: On the experience of introducing the Library-Bibliographical Classification.** (In Russian). In: Sbornik Nauč. trud. Bibl. AN SSSR i AN sojusnych resp. (1978) No. 1, p. 165–180
Description of the conversion to LBC of the V. Stefanik Scientific Library, Ukrainian Acad. of Sciences classified catalogue.

## 48   On Other Universal CS (alph.)

**5346 Coates, E. J.: The Broad System of Ordering.** In: Intern. Forum on Inform. & Doc. 4 (1979) No. 3, p. 3–6, 3 refs.
Presents main principles which serve as the basis in developing the Broad System of Ordering constructed at the FID in connection with the UNISIST Programme and intended as a switching mechanism for various local indexing languages. The structural outline of the schedule is cited. Special attention is paid to the notation used, as well as ways of reflecting syntactic relations and representing multidisciplinary subjects.          (Orig.abstr.)

**5347 Foskett, A. C.: The Broad System of Ordering: Old wine into new bottles?** In: Intern. Forum on Inform. & Doc. 4 (1979) No. 3, p. 7–12, 11 refs.
After an introduction in which the necessity of creating the BSO is stressed, certain features distinguishing the BSO from existing classification schemes are studied. A short description of BSO structure and content is given.          (Orig. abstr.)

**5348 Interdepartmental Commission on Classification. USSR State Committee for Science and Technology: Comments on the Broad System of Ordering.** In: Intern. Forum on Inform. & Doc. 4 (1979) No. 3, p. 25–27
General critical remarks concerning the overall 'Western' approach of the scheme, the missing of Marxism-Leninism, the difference in the understanding of the social sciences, the absence of some "complex problems and disciplines" (such as "the national liberation movement, the international revolutionary movement", etc.) and the lack of balance (ball games and sociology are assigned to the same level). Besides this among a number of particular points nine examples are listed which deserve attention and reconsideration of the scheme.

**5349 Perreault, J. M.: Some problems in the BSO.** In: Intern. Forum on Inform. & Doc. 4 (1979) No. 3, p. 16–20
This critical analysis of the BSO draft covers its main structural characteristics from the standpoint of its convenient utilisation, style, terminology, notation, polygraphic making. The analysis

concludes that individual shortcomings inherent to the scheme don't exclude its positive evaluation on the whole as a more perfect scheme compared to the Library of Congress Classification and Colon Classification.          (Orig. abstr.)

**5350 Soergel, D.: The Broad System of Ordering – a critique.** In: Intern. Forum on Inform. & Doc. 4 (1979) No. 3, p. 21–24
Critical comments on the BSO concern basic principles used in system construction, the quality of which, from the standpoint of the author, does not meet the requirements set out for the BSO. First of all, it would be necessary to revise and clearly formulate the purpose of the system, to make and consistently implement a basic decision on its structural characteristics, to provide for high-quality conceptual analysis and subject expertise which directly influence the content of the tables, and to clearly display supplementary materials for the tables.
          (Orig. abstr.)

**5351 Vickery, B., McIlwaine, I. C.: Structuring and switching: A discussion of the Broad System of Ordering.** In: Intern. Forum on Inform. & Doc. 4 (1979) No. 3, p. 13–15, 2 refs.
After a short presentation of major background principles used in BSO construction, the authors consider the most important structural peculiarities and spheres of application of this system. Some specific remarks deal with subdivisions within several major headings. In general, the BSO is viewed as a reasonable and up-to-date structural outline of modern knowledge and a useful tool to interconnect or switch between information systems.
          (Orig. abstr.)

**5352 Wellisch, H. H.: The Broad System of Ordering, or Bishop Wilkins Redivivus: a review article.** In: Libr. Quarterly 49 (1979) No. 4, p. 444–452, 13 refs.
Presentation of the BSO idea, background and special features, especially regarding its notational possibilities. Concludes that the question of a centralized institution for the maintenance of this new universal system will be crucial for its success or failure. Regarding the fact that FID lacks money even for its UDC there is not very much hope for the support of the BSO through this institution.

**5353 McKinlay, J.: List of Australian subject headings: too little? too late?** In: Aust. Libr. J. 28 (1979) No. 2, p. 23–26, 2 refs.
Description of a preliminary edition of LASH (List of Australian Subject Headings) in 1976–77 and the problems encountered.

**5354 Repp, J. M.: Kwangtung Teachers' College Library. People's Republic of China.** In: Intern. Libr. Rev. 10 (1978) No. 4, p. 407–410, 4 refs.
The million-volume library uses a new Chinese classification system with a Roman alphabet notation (22 letters for the divisions). These are listed and interpreted.

**5355 Chmielewska-Gorczyca, E.: The SPINES thesaurus – a controlled systematic science and technology vocabulary for science policy, management and development.** (in Polish). in: Zag. inform. nauk. (1977). No. 2, p. 93–111, 2 refs.
Description of the features of this thesaurus of Unesco, developed in 1976.

**5357 Tolstov, L. N.: Development of a branch section in the Common Document Classification.** (In Russian). In: Standarty i kačestvo (1978) No. 9, p. 44–46
Description of the development of the coal industry branch section in the Common Classification of Documents and discussion of the information collection about the output of the industry as well as compilation of a file of classification charts and tables by subgroups and types of products.          (Accord. orig. abstr.)

**5358 Virsis, L. S. et al.: A Common Classification Scheme for document data in classified catalogues of USSR state archives – the Soviet period.** (In Russian). (Izd. 2-e, dop. i dorabot.) Moskva 1978. 268 p.
The Common Classification Scheme was developed for the clas-

sification of documents kept in the State Archival Collections of the USSR. The second edition is a revision at all levels of structure in the main schedule.

## 5 On Special Objects CS (Taxonomies)

### 51 Numerical Taxonomy

See also 5205

5359 Andrich, D.: **A model for contingency tables having an ordered response classification.** In: Biometrics 35 (1979) No. 2, p. 403–415

5360 Berghaus, F. G.: **The validity of various methods of automatic clustering in discovering manuscript relationships.** In: Organis. intern. Et. langues anc. Ordinat., Rev., BEL (1978) No. 1, p. 1–24, 17 refs.

5361 Brechovskich, S. M.: **Scientific bases of the systematics of materials of construction.** (In Russian). In: Izvest. Akad. Nauk SSSR, neorg. Mater. 14 (1978) No. 12, p. 2133–2141, 4 refs.
Presents taxonomy as a part of systematics and considers the principles, methods and rules of rational systematization of materials.

5362 Coles, L. S., Brown, B. W., Engelhard, C. et al: **Determining the most valuable clinical variables: a step-wise multiple logistic regression program.** In: Meth. Inform. Med. 19 (1980) No. 1, p. 42–50

5363 Derflinger, G.: **General computing algorithm for factor analysis.** In: Biometrical Journal 21 (1979) No.1, p. 25–38

5364 Hegner, St. J., Maulucci, R. A.: **Set-theoretic foundations of data-structure representation.** In: Inform. Systems 3 (1978) No. 3, p. 193–201, 10 refs.
A formal set-theoretic model for the computer representation of data is developed. The key idea of the model is the concept of the distinguished urelement. A Zermelo-Fraenkel set theory ZF is the starting point. This theory contains all the fundamental sets which are required. A new Zermelo-Fraenkel theory ZF' is then formed which is identical to ZF except that it contains an additional constant a, interpreted as a urelement, and new definitions for the usual constructions in mathematics are developed for the element in ZF. Develops theory of canonical well ordering on the set of computer-representable elements, and a new definition of Codd's first normal form is presented. (Author)

5365 Jansen, B. H. et al: **Usefulness of autoregressive models to classify EEG-segments.** In: Biomed. Techn.24 (1979) No. 9, p. 216–223

5366 Larsen, S. O.: **A program for maximum likelihood estimation and likelihood ratio tests in one-locus ABO-like systems based upon population phenotype data.** In: Computer Programs in Biomedicine 9 (1979) No. 2, p. 213–217

5367 Rioux, P., Nakache, J. P.: **Discriminant analysis: methods and program.** In: Computer Programs in Biomedicine 10 (1979) No. 1, p. 43–47

5368 Rosner, B., Donner, A., Hennekens, C. H.: **Significance testing of interclass correlations from familial data.** In: Biometrics 35 (1979) No. 2, p. 461–471

5369 Stanfel, L. E.: **Experiments with a very efficient heuristic for clustering problems.** In: Inform. Systems 4 (1979) No. 4, p. 285–292
A method is described for solving certain nonlinear clustering problems. While operating in polynomial time the method is not

an algorithm and counter examples are cited, along with a linear programming methodology for constructing them. The success of the procedure when applied to real problems is discussed and some theoretical lines of investigation suggested for establishing circumstances under which convergence may be guaranteed. Finally, applications to important problems in the information sciences are reviewed, and the case of large sets of objects discussed. (Author)

### 52 On Taxonomies & Nomenclatures for Chemicals

See also 5265

5370 Komskij, A. S., Ageeva, L. N., Sevyakova, L. A.: **Improvement of SPRESI code terms by using them in structure and additive methods of calculations of chemical compounds properties.** In: Naučno-techn. inform. Ser. 2 (1979) No. 12, p. 16–18
Description of the use of the fragmental code SPRESI for isolation in chemical compounds of structure fragments used when calculating properties of chemical compounds by structure and additive methods. (Author, abbr.)

### 57 On Commodity CS

See also 5273

5371 Gasthuber, H.: **Zentraler Artikelkatalog (ZAK) der DDR erfaßt 100 Millionen Artikel.** (Centralized product catalogue of the GDR comprises 100 millions of products). (In German). In: Forum Ware 7 (1979) No. 3–4, p. 157–158
Short report on the introduction of a centralized product catalogue for obligatory use by suppliers and buyers beginning Jan. 1, 1980. It contains standardized names and numbers for approx. 100 million products (articles) from the production in the German Democratic Republic as well as from abroad. The catalogue consists of 300 partial catalogues of altogether 120000 pages.

5372 McFall, J. B. (Ed.): **Agricultural Commodities Index: Ready-Reference Index to U.S.D.A. Statistical Series.** Phoenix: Oryx Press 1978. 1955 p.
ISBN 0-912700-09 $ 95.—
A review of this index by J. P. Comaromi in: Inform. Process & Management 15 (1979) No. 5, p. 267 concludes with the following statements: "Specificity promotes rapid identification of statistical data and is applied consistently. The format promotes both finding and grasping of information. The coverage is both broad and deep. The entries are good examples of the way to display data for rapid informing with a minimum of effort. On balance the work is worth its price to libraries serving researchers and others vitally concerned with statistical data on commodities."

5373 Ostarhild, K.: **Der Runde Tisch Warenordnung. 2. Tätigkeitsbericht.** (Roundtable Commodity Ordering). (In German). In: Forum Ware 7 (1979) No. 3–4, p. 153–156
Report on the deliberations and results of a 2nd meeting and further work in smaller circles of a roundtable concerned with the problems of commodity description and classification.

### 58 On CS for Kinds of Documents

5374 Dubauskas, S. M.: **Possible criteria for the classification of libraries.** (In Russian). In: Nauč. i techn. biblioteki SSSR (1978) No. 8, p. 14–15, 3 refs.
Major library criteria are identified as (1) the library objective (general and special), (2) the character of work (industrial, scientific, educational), (3) the subject of library stock.

5375 Trumpp, Th.: **Praktische Erfahrungen bei der Ordnung und Verzeichnung von Kriegsflugblättern.** (Practical experiences in organizing and describing war fly-sheets) (In German). In: Archivar 32 (1979) No. 3, p. 310–313

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Explanation of the special difficulty of organizing this kind of documents and presentation of four characteristic features, according to which war fly-sheets can be identified and ordered.

**5376 Frost, C. O.: The use of citations in literary research: a preliminary classification of citation functions.** In: Library Quarterly 49 (1979) No. 4, p. 399–414
Citation studies have been concerned primarily with the properties of cited works. The analysis of citation functions is undoubtedly more complex than this, but it can reveal information about research processes. A key problem in such an analysis is the design of categories to be used to classify citation functions. A few schemes have been created for the classification of citation functions in scientific publications. This article examines these schemes and considers differences in research methods between scientific and humanistic disciplines which might have an influence on citation practices. A scheme for the classification of citations in literary research is proposed as a preliminary model. Findings are presented from the results of the application of this scheme to a sample of publications in German literary research.
(Author)

**5377 Kaufman, J.: A system for cataloging and classifying visual resources.** In: Libr. Resources & Techn. Services 23 (1979) No. 2, p. 168–
The system for cataloging and classifying photographs and other visual materials developed for the University Archives of the State University of New York at Buffalo incorporates the principles and guidelines of the Anglo American Cataloging Rules, offers degrees of access depending on the size and complexity of the collection, permits implementation by nonprofessional staff, and provides inventory control. It is readily adaptable to a variety of collections, such as photographs of local towns in public libraries, pictures of musicians and musical instruments in music libraries, and artifacts in historical societies.
(Author)

# 5 On Special Subject CS

## 61 On CS for Mathematics and Area 1 Fields

**5378 Sutter, E.: Tools needed to operate the network. The ISO Thesaurus and the ISONET Manual.** In: Proc. Symp. ISONET. Paris–Geneve. p. 33–35
Description of the thesaurus and the manual for operation of the ISONET network, being developed since 1974. The network is intended for exchange of bibliographic information on standards and also of standards among ISO members.

## 62 On CS for Physics and Chemistry (incl. Electr.)

**5379 Sel'dešev, V. N. et al.: The development of a bilingual thesaurus and methodological principles for a common information retrieval language in nuclear science and technology.** (In Russian). In: Probl. atomatiz. obrab. nauč.-techn. inform. Moskva 1978. p. 40–47, 10 refs.
Discussion of the development of the thesaurus and the process of enriching its vocabulary with new terms.

**5380 Berthelot, A. et al.: The ICSU AB International Classification System for Physics: Its history and future.** In: J. Amer. Soc. Inform. Sci. 30 (1979) No. 6, p. 343–352, 2 tabls., 2 figs., 3 refs.
An account is given of the process by which the *International Classification System for Physics* was developed and finally adopted by four major services that abstract and index the world's physics literature. Details are given of the relevant historical background and of the collaborative procedures followed in achieving consensus in this international project, unique in its scale. This effort was pursued under the aegis of the International Council of Scientific Unions and involved four services and other physics organizations. Some technical points are discussed

that bear on the problems of constructing classification systems that fulfill a variety of needs and express a compromise between similar preexisting structures. Aspects of the experience of collaboration, which may be of use to similar enterprises, and some implications for the future of processing of scientific information on an international scale, are briefly reviewed. (Authors)

**5381 Skolnik, H.: A classification system for polymer literature in an industrial environment.** In: J. Chem. Inform. Computer Sci. 19 (1979) No. 2, p. 76–79, 12 refs.
After examining the place of polymers in the major classification systems (UDC, DDC, LCC) the classification elaborated at Hercules Research Center is presented.

**5382 Rennard, T. L., Gončaruk, G. P., Ševjakova, Ja. A.: On the subject headings for the "Synthesis of High-Molecular Compounds" section in the Chimija abstract journal.** (In Russian). In: Vopr. inform. teorii i praktiki (1978) No. 32, p. 54–58, 11 refs.
A general classification of polymers is described which was used successfully to improve the subject headings of the section.

**5383 Leont'eva, T. M., Ševjakova, L. A.: An information retrieval language for chemistry.** (In Russian). In: Vopr. inform. teorii i praktiki (1978) No. 32, p. 4–11, 3 refs.
Description of the composition, structure and functions of two IR languages of the Unified STI System for Chemistry and Chemical Industry: a descriptor language and the language of organic structural formulae.

## 63 On CS for the Astro- and Geosciences

**5384 Takeda, Y.: Compilation of a remote sensing thesaurus** (In Japanese). In: Libr. & Inform. Sci. 16 (1978) p. 185–196, 11 refs.
Descriptor terms were selected from Proceedings of the Intern. Symp. on Remote Sensing of Environment, 1969–1973. A KWIC index was compiled to gauge frequency of word appearance.

**5385 Veselov, V. M.: The information retrieval language of the automated information/reference system KATALOG.** (In Russian). In: Tr. VNIIGI-MCD 1978. No. 43, p. 104–105, 7 refs.
Describes the IR language used in the KATALOG reference system for the description of characteristics of hydrometeorological information files and information queries. (Author, abbr.)

**5386 Georgiev, H. T.: Brief lexico-semantical description of the subject field "oil and gas".** In: T. A. Inform. 20 (1979) No. 1, p. 47–59, 3 refs.
This study shows an effective method of the use of frequency dictionaries of a field established for automatic retrieval. With these dictionary terms theasuri were created. The semantic groups from these thesauri are presented.

**5387 Amchir, I. K. et al.: An experience in optimising a fragment of an IR language for refractory materials production.** (In Russian). In: Struktur. i priklad. lingv. (1978) No. 1, p. 193–198
The IR language optimisation depends on the identification of the syntactic relations and semantic structure of word combinations.

**5388 Use of novel approaches to the development of an IR language for oil and gas field geology.** (In Russian). In: Tr. Vsesojusnogo Neftjanogo naučno-issledovatel'skogo i geologo-razvedočnogo instituta. Leningrad 1978. 128 p.
Development of an STI language using computer techniques with a Minsk-32-based software for oil and gas field geology.

**5389 Davidson, R. M.: The IEA coal data base — the development of the coal thesaurus and indexing strategy.** In: Aslib Proc 31 (1979) No. 10, p. 452–459

## 65 On CS in the Human Area (5)

5390 Booth, B.: A "new ERIC thesaurus" fine-tuned for searching. In: Online, USA 3 (1979) No. 3, p. 20–29
A thesaurus for online use is presented.

## 67 On CS in the Economics and Technology Area

5391 Taupin, M.: Une gestion de thésaurus: un example – le macro-thesaurus OCDE. (Thesaurus organisation – an example: the OECD Macrothesaurus). (In French) In: Problèmes informatiques des systèmes documentaires. Journées de formation 1978. Paris: AFCET 1978. p. 6,8.
General description of the operations in the automatic handling of the four-lingual OECD Macrothcsaurus.

5392 Dood, K. J.: The U.S. Patent Classification System. In: I.E.E.E. Trans. prof. Communic. 22 (1979) No. 2, p. 95–100
Description of the characteristics of this classification system.

5393 Petrov, I. I.: On the methodology of developing and extending the IPC when carrying out forecasting and estimating research. (In Russian). In: Vopr. izobretatel'stva (1978) No. 11, p. 62–63, 4 refs.

5394 Zloof, M. M.: Query by example: a language for data bases. (In Italian). In: Management et information 17 (1978) No. 9, p. 497–510, 3 refs.
Description of the Query by Example (QBE) language developed in an IBM branch, intended for data base management in the field of administration of enterprises and trade.

## 68 On CS in the Science and Information Area

5395 Kiselev, A. A. et al: Research classification as an instrument for planning and coordination in medical investigation. (In Russian). In: 4 Vses. simpoz. po probl. planir. i upr. issled. i razrabotkami., Sekc. 1. Moskva 1977. p. 121–123
For the analysis of the thematic structure of research and for the evaluation of its results a system of classification characteristics is needed. The advantages of multi-aspect research classification are shown. It includes: subject content of research, goal, relation to its object, means and techniques, research character and results, research time schedule, resource backing, levels, performers, evaluation of themes and results.

5396 Bykov, G. V.: A typology of scientific discussions. (In Russian). In: Vopr. filosofii (1978) No. 3, p. 110–113, 7 refs.
Scientific discussions can be classified (1) by their form (personal or by correspondence), (2) by the importance of the subject (main or particular questions), (3) by the nature of arguing (experimental, theoretical, dogmatic), (4) by their objectives (imperative, confrontational, informational), (5) by their results (resultative, drawn, uncertain).

5397 Charpentier, J.-M.: Etat des langages documentaires dans la presse et les recherches qui s'y rattachent en vue d'une automatisation possible et de l'utilisation manuelle. (The state of the documentary languages of the press and the research concerning possible automation and manual use.) (In French). Paris: I.N.T.D.: Sci. Techn. Inform. et Doc. C.N.A.M. 1978. 79 p., 7 refs.
Report concerning the documentary chain: collection and selection, analysis, retrieval, distribution with regard to the press. Indexing languages of the press based on several examples. The future of press documentation.

5398 Greengrass, A. R.: The information bank thesaurus. In: Information Age in Perspective. Amer. Soc. Inform. Sci. Annual Meeting Vol. 41 (1978). White Plains, N.Y.: Knowledge Industry Publ. 1978. p. 137–140
Discussion of the evolution of an indexing vocabulary from a printed to an online version. Some special problems regarding the Information Bank of the New York Times are treated.

## 69 On CS in the Culture Area

5400 Fawcett, T.: Subject indexing in the visual arts. In: Art Libr. J. 4 (1979) No. 1, p. 5–17, 17 refs.
Visual arts indexing would be aided by an internationally agreed controlled vocabulary with rulcs of usage. Examples of current indexing practice are cited, notably PRECIS, Library of Congress, RILA and the Répertoire d'Art et d'Archéologie.
(Author, abbr.)

5401 Abdul Huk, A. M.: Problems and prospects in the organization of Bengali materials. In: Libri 29 (1979) No. I, p. 51–63, 19 refs.
Guidelines are suggested for the cataloguing and classification of Bengali Muslim and Hindi names and for the transliteration and subject analysis of Bengali materials.

5402 Lankhorst, O.: Les revues de sciences religieuses. Approche bibliographique internationale. (Journals in the field of religion. An approach to an international bibliography). (In French). Strasbourg: Cerdic Publ. (Palais Universitaire, 9 Place de l'Université, F–67084 Strasbourg CEDEX) 1979. 294 p.
This book gives an introduction into the knowledge about the religious journals existing in the world, both primary and secondary which have increased to such an extend that no reader nor any library could keep track of all of them. Among others this book contains a chapter on classification systems for religious article indexing and arranging (p. 137–163), in which several broad classification outlines are juxtaposed followed by a discussion of the relevant problems.

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## 7 Classification and language

## 71 General Problems of Natural Languages, Metalanguages, Semiotics

5403 Michell, G.: Book review of D.E. Walker, H. Karlgren, M. Kay (Eds.): Natural Language in Information Science: Perspectives and directions for research. Stockholm: Skriptor AB 1977. 194 p. In: Libr. Quarterly 49 (1979) No. 4, p. 466–468

## 72 Semantics

See also 5169, 5235

5404 Deliyanni, A., Kowalski, R. A.: Logic and semantic networks. In: Comm. ACM 22 (1979) No. 3, p. 184–192

5405 Heal, J., Borowski, E. J.: Sentence meaning and word meaning. In: Philosophical Quarterly 29 (1979) No. 115, p.

5406 Fink, St. R.: Case grammar and valence theory at a stalemate? Their relevance for semantic memory. In: 12 Intern. Linguisten-Kongreß, Wien 1977, p. 44
Suggestion to integrate case grammar and valencc theory. Recent research in semantic memory (Kintsch 1974) supports the usefulness of such a valence/case-based hypothesis. Such an integrated model could serve as a common basis for linguists and psychologists in their study of language and its representation in the human mind. (Author, abbr.)

5407 Gangopadhyay, M.: An investigation into the cross reference of syntax and semantics. In: 12. Intern. Linguisten-Kongr., Wien 1977. p. 44
The cross-reference of syntax and semantics at the sentence level is obviously represented in two grammatical concepts: case (role) and voice. These two notions of western grammar are partially similar to the notions of Karaka and Vacya respectively in Sanskrit grammar. Basically, these two notions indicate different

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semantic and syntactic functions of nominal and verbal units. At the sentence level this opposition is explained in two dimensions, namely, the dimension of semantic relation and that of syntactic manifestation. The paper suggests that a restriction on semantic details at the sentence level would be a helpful criterion to solve the problem of the unlimited "role" categorisation.

(Author, mod.)

5408 Lyons, John: **Basic problems of semantics.** In: 12. Intern. Linguisten-Kongreß, Wien 1977. p. 1–3

5409 Paduĉeva, E. V.: **Mode of reference and its role in semantic representations of sentences.** (In Russian). In: Nauĉno-techn. inform. Ser. 2 (1979) No. 9, p. 25–31, 22 refs.
The article deals with referential semantics, particularly with referential properties of noun phrases (NP) in Russian.

(Author, abbr.)

5410 Sgall, P.: **Meaning, content and pragmatics.** In: Prague Stud. Math. Linguist. (1978) No. 6, p. 215–225

## 73 Automatic Language Processing

5411 Gindin, S. I.: **Positional methods of automatic text fragmentation, their text-theoretic and psycholinguistic foundations.** (In Russian). In: Semiotika i informatika (1978) No. 10, p. 32–73, 61 refs.
Specific positional procedures described in the literature are reviewed and two main types of positional diagnostic features – spatial and functional (compositional) – are distinguished.

(Author, abbr.)

5412 Hellwig, P.: **PLAIN – ein Programmsystem zur Sprachbeschreibung und maschinellen Sprachbearbeitung.** (PLAIN – a program system for language description and machine language processing) (In German). In: Sprache u. Datenverarb. 2 (1978) No. 1, p. 16–31, 10 refs.

5413 Kapanidze, O. G.: **Computer implementation of automatic text analysis procedures.** (In Russian). Tbilisi: Gruz. NIINTI 1978. 10 p., 7 refs.
In parsing a Georgian sentence the basic unit to be discovered is the verb constituting the sentence summit. Once the verbal form is identified, the parser searches for its actants – the subject and the complement. (Author, abbr.)

5414 Schott, G.: **Automatische Deflexion deutscher Wörter unter Verwendung eines Minimalwörterbuchs.** (Automatic deflection of German words using a minimized dictionary.) (In German). In: Sprache u. Datenverarb. 2 (1978) No. 1, p. 62–77, 18 refs.

## 74 Grammar Problems

5415 Sgall, P., Buranova, E.: **Functional perspective of the sentence and context determination.** (In Russian). In: Nauĉno-techn. inform. Ser. 2 (1979) No. 10, p. 26–31, 55 refs.
At the Algebraic Linguistics Group of the Carolinian University in Prague an explicit description of functional perspective of the sentence using the formal apparatus of the so-called functional generating description of a language has been worked out. In the present work, a number of these approaches is compared; the finally accepted approach is based on the contents level.

(Author, mod.)

5416 Serebrjanyj, A. I.: **Discovering language grammar: towards the problem of automatic generation of an indexing algorithm.** (In Russian). In: Nauĉno-techn. inform. Ser. 2 (1978) No. 5, p. 7–16, 24 refs.

## 75 Question-answering Systems

See also 5202

5417 Berzon, V. E., Brajlovskij, A. B.: **Classification of connectors and dialogue systems of automatic abstract-**ing. (In Russian). In: Nauĉno-techn. inform. Ser. 2 (1979) No. 11, p. 19–23, 8 refs.
Consideration of how to create a dialogue system of automatic abstracting, envisaging the answer to users' inquiries for various aspects of document contents (such as results of work, methods, examples, etc.). A method of automatic questionnaire-aspect abstracting is offered, where aspects are represented by the connectedness indicators (parentheses, conjunctions, pronouns, reiterations, etc.) which reflect not only semantic, but also logical-semantic links between the sentences of a connected text.

(Author, mod.)

5418 Burket, T. G., Emrath, P., Kuck, D. J.: **The use of vocabulary files for on-line information retrieval.** In: Inform Proc. & Management 15 (1979) No. 6, p. 281–289, 3 figs., 16 refs.
Online information retrieval systems continue to reach wider audiences. The authors discuss a particular text retrieval system and its techniques for helping the common unsophisticated user through both the search for and understanding of information based on the vocabular file concept. In addition methods for easy construction and maintenance of a suitable data base organization are described. (Author)

5419 Fries, U.: **On a typology of answers.** In: 12. Intern. Linguisten-Kongr., Wien 1977. p. 146
Sentences (syntagmas) functioning as answers to questions form an important part of dialogues. Whereas the questions have been the topic of investigations for a long time, the structure of the appropriate answers have only rarely been investigated. This paper attempts to give an overall classification of answers, stressing their relationship with the corresponding questions, i.e. an analysis within a frame that goes beyond sentence (and speaker-) boundaries. (Author, abbr.)

5420 Stejn, V. S., et al.: **Use of classifications in man-machine dialogue.** (In Russian). In: Vopr. inform. teorii i praktiki (1978) No. 32, p. 34–43, 7 refs.
When using a classification for an interactive information retrieval one has to consider also the classification of a field which is in the mind of a given searcher. The paper discusses a classification used by a data retrieval system in the field of chemical compounds properties, developed at VINITI.

## 76 Lexicon/Dictionary Problems

See also 5314

5422 Gold, D. L.: **Problems in interlingual lexicography.** In: Babel 24 (1978) No. 3–4, p. 161–168

5423 **Theses of the scientific-methodological conference "Problems of general and terminological lexicography"** 8–9 June 1978. (In Russian). Baku 1978. 152p.
The theses concern problems of terminology and of compilation of dictionaries (bilingual and multilingual, scientific-technical and special), glossaries and thesauri.

## 77 General Problems of Terminology

See also 5162, 5168, 5203, 5204

5424 Akademija Nauk SSSR. Komitet Nauĉno-techniĉeskoj Terminologii: **Short methodological manual on the elaboration and unification of scientific and technical terminology.** (In Russian). Moskva: Izdatel'stvo Nauka 1979. 125 p.

5425a Baženova, N. S.: **Some properties of semantic networks of terminological systems.** (In Russian). In: Struktur. i mat. lingv. (1978) No. 6, p. 9–13, 2 refs.
A terminological system can be represented by a graph where the apices are the terms and the arcs the relations between the semantic units, represented by the terms. A parameter is introduced for the characterization of the systemic aspect of terminology: the degree of semantic complete connection used for the description of a terminology system. The example chosen covers 504 terms in data processing.

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5425b Drozd, L.: **Zur formalen und inhaltlichen Charakteristik des Fachwortes.** (On the formal and contents-related features of the term.) (In German). In: Muttersprache 88 (1978) No. 5, p. 281–286
Paper presented at the 12th International Linguistics Congress, Vienna 1977.

5425c Gerd, A. S.: **Whither terminology − to unification or standardisation?** (In Russian). In: Naučno-techn. inform. Ser. 2 (1978) No. 4, p. 1–4, 17 refs.
Rigid and strict terminology standardization would signify an attempt to formalise scientific thinking, highly undesirable. Contains recommendations for term use in various forms and degrees of rigidity, derivable from the purposes of its use − reference books, dictionaries, official documents, textbooks, reports, etc.

5426 Gorkova, V. I., Bakulina, I. I. (Eds.): **Essential problems in terminology for informatics and documentation.** Moskva: All-Union Institute of Scientific and Technical Information 1979. 115 p. = FID Publ. 569
A collection of 6 papers devoted to specific studies in information science terminology: 5427 Koblitz, J.: Terminological development in the documental information field and its respective scientific discipline. 5428 Leski, K., Leska, M.: An analysis of errors in terminology and a concept for terminological control. 5429 Cleverdon, C.: Terminological control 5430 Gorkova, V. I., Shishova, L. A.: Models for structuring terminological systems. 5431 Kaplun, L. M., Azgaldov, G. G.: Evaluation of terms and terminological systems: a qualimetric approach. 5432 Rondeau, G.: Bilingual and multilingual terminological banks.

5433 Handelshøjskolen i København: **Special issue on terminology.** Copenhagen: Nyt Nordisk Forlag Arnold Busck 1979. 157 p. (Publication No. 5)

5434 Ickovič, V. A.: **On the zero value of the classification characteristic in terminology.** (In Russian). In: Probl. struktur. lingv.Moskva 1978. p. 186–194, 11 refs.
The absence of an obligatory one-to-one correspondence between term and concept is demonstrated. With a dichotomic classification of quadrangles it can be shown that concepts exist without names (terms). The presence of termless concepts breaks the one-to-one correspondence principle.

5435 Morton, S. E.: **Multilingual terminology banks here and abroad; online terminology dissemination as an aid to translation.** In: Information Age in Perspective. Amer. Soc. Inform. Sci. Annual Meeting Vol. 41 (1978). White Plains, N.Y.: Knowledge Industry Publ. 1978. p. 242–244, 3 refs.

5436 Picht, H.: **Co-operation of the Nordic Countries − NORDTERM.** In: Intern. Classificat. 6 (1979) No. 3, p. 181–182
Outlines the terminology activities of Nordterm during the years 1976–1979, a co-operative group of Centers from Finland, Norway, Sweden and Denmark.

5437 Piotrovskij, R. G., et al.: **Term, term field, term system.** (In Russian). In: Struktur. i mat. lingv. (1978) No. 6, p. 74–80, 10 refs.
A combination of interdependent lexical units in the content plan forms a term system. A term field can be described either by a table or a semantic network or with the aid of a thesaurus graph. The questions relating to thesaurus modelling of a term field are demonstrated using French language texts.

5438 Polesko, A. S.: **On the nature of terminological power in word combinations.** (In Russian). In: Struktur. i mat. lingv. (1978) No. 6, p. 80–86, 4 refs.
It is assumed that the "term making influence" of a word-combination stems from the fact that a class of general concept words receives a certain "terminological charge" when used in certain combinations with terms.

5439 Rondeau, G.: **Les banques de terminologie bilingues et multilingues: état de la question.** (The bilin-

gual terminology banks: state-of-the-art.) (In French). In: Meta 24 (1979) No. 2, p. 253–263
General remarks on terminology banks. Definition of certain key terms. Special problems.

5440 **TermNet Activities.** In: Intern. Classificat. 6 (1979) No. 3, p. 182–183
Summarizes 3 TermNet programme items: (1) Developing a scientific basis of terminology, (2) Establishing closer co-operation in preparing terminologies, (3) Establishing closer co-operation in documentation and information of terminological data.

## 78 Special Terminology Problems

See also 5116, 5156, 5198

5441 Bretschneider, H.: **Begriffsnormung in der Hydromechanik.** (Concept standardization in hydromechanics). (In German). In: DIN-Mitt. 59 (1980) No. 2, p. 74–77, 6 refs.
At the occasion of the revision work of the standard DIN 4044, one of the basic standards of matters relating to water, the reasons for the planned new edition are outlined and their effects are described.

5442 Stoberski, Z.: **International scientific terminology and neologisms in the course of unification.** In: Babel 24 (1978) No. 3–4, p. 169–173
Description of terminology activities in the Unesco/UNISIST programme and the problem of neologisms, especially in medicine, pharmacology and biochemistry.

5443 Riggs, F. W.: **INTERCONCEPT aims redefined.** In: Intern. Classificat. 6 (1979) No. 3, p. 178–179
Short report on the results of the Ad Hoc Committee meeting of the project Interconcept, Budapest, 21–23 Aug. 1979. The fundamental premise of the redefinitions was the distinction between the normative approach to terminology and the informative or descriptive mode of terminological work better suited to the requirements of the social sciences.

5444 Riggs, F. W.: **A new paradigm for social science terminology.** In: Intern. Classificat. 6 (1979) No. 3, p. 150–158, 3 app.
Terminology is concerned with the naming of concepts, and hence both with the meanings of words and with the need to signify concepts unambiguously. Three terminological paradigms are examined: normative, analytic, and synthetic. The close relation of normative terminology to conceptology is explained and the intimate association of analytic terminology with lexicology is also examined. By contrast, the idea of synthetic terminology as the best bridging model is supported. The establishment of a new computerized terminology bank for the social sciences, as proposed by UNESCO's INTERCONCEPT project, is reported as an important development favoring the feasibility and usefulness of synthetic glossaries in selected subject fields of the social sciences.                                                (Author)

5445 Leska, M.: **Theoretical and practical problems of terminology in the domain of information science.** (In Polish). In: Normalizacja 46 (1978) No. 4, p. 37–39, 3 refs.

5446 Poluskin, V. A.: **The terminology of informatics.** (In Russian). In: Naučno-techn. inform. Ser. 2 (1978) No. 5, p. 29
A review of the monograph "Terminologija informatiki" by V. M. Lejchik, I. P. Smirnov and I. M. Suslova, Moscow, VINITI 1977.

## 79 Problems of Translation (incl. Multilingual CS)

See also 5206

5447 Hubert, J. M.: **Constitution de lexiques multilingues pour la traduction automatique. Problèmes posés dans le cas de TITUS.** (Construction of multilingual dictionaries for automatic translation. Problems in the

case of TITUS). (In French). In: Banque des Mots (1978 publ. 1979) No. 16, p. 187—196

The TITUS system used for textile documentation is checked for its methodical applicability to serve also in the field of tropical agriculture. The difficulties in applying the system to abstracts and in the construction of the dictionary are studied.

**5448  Pigur, V. A.: Linguistic support in building up multilingual thesauri. Choice of equivalents.** (In Russian). In: Naučno-techn. inform. Ser. 2 (1979) No. 11, p. 11—18, 9 refs.

In constructing multilingual thesauri a most difficult problem is the choice of equivalents for words which arc partial synonyms. For this the main types of lexical systems and paradigmatical relations are considered and an example of a semantic description of terminal lexical systems in Russian and in English is given.                                       (Author, mod.)

**5449  Wilss, W.:** Book Review of **H. E. Bruderer: Handbuch der maschinellen und maschinenunterstützten Sprachübersetzung.** München—New York: Verl. Dokumentation Saur KG 1978. (In German). In: Sprache u. Datenverarb. 2 (1978) No. I, p. 89—91

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## 8  Applied Classing and Indexing

### 81  General Problems and Indexing Rules

**5450  Bakewell, K. G. B.:** Book Review of **H. Borko, Ch. L. Bernier: Indexing concepts and methods.** New York/London: Academic Press 1978. In: Indexer 11 (1979) No. 4, p. 244—246

**5451  Dunn, D.:** Book Review of **H. Borko, Ch. L. Bernier: Indexing concepts and methods.** New York/ London: Academic Press 1978. In: Inform. Proc. & Management 15 (1979) No. 6, p. 325

**5452  Harrod, L. M.:** Book Review of **E. M. Keen: On the performance of nine printed subject index entry types: a selective report of EPSILON.** Aberystwyth: College of Librarianship Wales 1978. In: Indexer 11 (1979) No. 4, p. 247—248

**5453  Unte, W.: Zu den Regeln für den Schlagwortkatalog der Universitätsbibliothek der Freien Universität Berlin.** (The rules for the subject headings catalog of the library of the Free University of Berlin). (In German). In: DFW Dokumentation. Information 26 (1978) No. 5, p. 197—202, 204—206, 36 refs.

Lecture given in Dec. 1977 at the Bibliothekar-Lehrinstitut in Köln describing the subject cataloguing rules which depend very much on the historical development of the library of the Free University during the last 40 years.

### 83  Indexing of and by Titles, Phrases

See also 5276, 5295, 5473

**5454  Lambert, G.: Le système d'indexation multilingue PRECIS: PREserved Context Index System/ application à l'indexation de documents en langue française.** (The multilingual indexing system PRECIS: application for the indexing of documents in French language). (In French). Paris: INTD. Sci. Techn. Inform. & Doc./ CNAM 1978.

The findings of this thorough investigation: PRECIS can be applied to the French language if a special subgrammar taking care of the French grammatical rules is used with the system. This seems to apply to every language.

**5455  Miller, R.: KWOC Index for maps.** In: Western Assoc. of Map Libr. Inform. Bull. 10 (1978) No. 1, p. 34—39

The KWOC index was developed in 1972 to provide a geographical location and a subject analysis of the map collection. Recent improvements are reported.

**5456  Weintraub, D. K.: An extended review of PRECIS.** In: Library Resources & Techn. Services 23 (1979) No. 2, p. 101—115, 6 refs.

The PRECIS system of subject headings was designed for use with a computer-produced subject index. Accordingly, the routines of subject heading work are clearly differentiated into clerical procedures and those that require judgment. The clerical procedures can be accomplished largely through the use of computer programs. The subject headings represent a unique combination of several different characteristics. As a result the system permits several coextensive forms of a subject name for each work. The allowable forms of subject name are restricted somewhat by the constraints of the system but the final choice amongst the various alternatives is made by the subject analyst. Often, this choice reflects his or her usage rather than any attempt to realize an explicit code for subject names. There is some evidence that this judgment varies in individual cases. Moreover, there is no empirical evidence that the alternatives permitted do reflect user convenience.                (Author)

### 87  Indexing of Secondary Literature

**5457  Frolova, I. I.: On methods of compiling indexes of foreign reference-bibliographic tools on the history of foreign countries.** (In Russian). In: Vopr. teorii i metodiki bibliogr. Leningrad 1978. p. 101—116

Comparative evaluation of two methods of compiling an index. The systematization of the material in both indexes established was based on a suitably revised LBC.

**5458  Mihokova, M.: Indexes in bibliography.** In: Bibliogr. zb. (1975) (1978) p. 285—319, 393—395, 57 refs.

Generally valid principles and methods of index compilation and questions relating to indexes in bibliographies are examined and their function (checking, cognition, evaluation, etc) is analysed. Special attention is paid to technical literature concerned with problems of indexes in bibliographies.             (Author, abbr.)

### 88  Indexing of Primary Literature and Documents

**5459  Citation index of informatics. In 3 parts.** (In Russian). Baku: Azerb. NII Nauč.-techn. inform. i techn.-ekon. issled. 1976. 134 p.

Citation index of the references to 320 articles which appeared in Naučn.-techn. inform. 1976—77 comprising 2477 references. The index consists of (1) Citation Index, (2) Source Index, (3) Index of Citing Authors.

**5460  Harrison, J. J.: United States Congressional Publication Indexing: statistical comparisons between the CIS/INDEX and the Monthly Catalog.** In: Govt. Publ. (1978) No. 3, p. 273—283, 5 refs.

The comparisons undertaken show that the CIS/INDEX is about 100 days earlier in publication about Congressional Publications and comprises also more material than the Monthly Catalog.

**5461  James, B.: Indexing the Times.** In: Indexer 11 (1979) No. 4, p. 209—211

**5462  Kahler, R. C.: Indexer and computer as collaborators in the indexing of a periodical.** In: Indexer 11 (1979) No. 4, p. 212

Describes the use of a computer to produce the index to the monthly Journal of Abstracts by the British Ship Research Association.

**5463  Raye, S., Robert, L. C.: Newspaper indexing — the computer is the answer.** In: Wilson Libr. Bull. 53 (1979) No. 6, p. 686—7

## 9 Classification "Milieu" (Org. & Econ.)

### 92 Persons and Institutions in Classification

5464 **Prof. Kaula in Germany.** In: Herald of Libr. Sci. 18(1979) No. 1–2, p. 161
Short report on P. N. Kaula's visit to Germany in April 1979 with his proposal regarding the founding of an international classification society.

5465 Krommer-Benz: **INFOTERM — International activities in the area of standardized terminology.** In: Indexer 11 (1979) No. 4, p. 220–226, 8 refs.
What is 'terminology'? – Terminological principles – Elaboration of terminologies – Terminological documentation – 'International bibliography of standardized vocabularies' – 'World Guide to terminological activities'.

### 93 Organisation of Class. on the National Level

5466 Sukiasjan, E. R. (Ed.): **Classified and subject catalogues of research libraires.** (In Russian). Moskva: Gos. Biblioteka SSSR im. V. I. Lenina 1978. 111 p.
Survey on the status and trends of classification practice in the USSR and abroad and characterization of the classification systems used according to types and kinds of libraries and their operation. Proposal to create a problem commission on classification and classified cataloguing. The volume comprises several individual papers, such as: 5467 Sukiasjan, E. P.: Classification practice in the USSR at the present state: status and trends of development. 5468 Poljanov, V. P.: Problems of catalogue development in regional libraries. 5469 Zverev, Ju. V.: The peculiarities of the reference structure of the Dag Hammarskjöld Library in New York. 5470 Achalaja, T. N.: Problems of catalogue quality structure.

### 98 User Studies

5471 Oyesola, S. O.: **Indexing services in Nigeria.** In: Indexer 11 (1979) No. 4, p. 229–231, 4 refs.

5472 Zonnewen, P., Skripkin, W.: **Fragen der Entwicklung des Komplexes von Informationsrecherchesprachen im internationalen System der wissenschaftlichen und technischen Information.** (Problems of developing a set of IR languages within the ISTIS). (In German). In: Dokument./Inform., 1978. No. 41, Pt. 2, p. 25–32
The main goals of research of such a set of indexing languages are described and the main documents elaborated at the first stage of research are listed as well as the objectives of the service of a centralised management of indexing languages.

5473 Bakewell, K. G. B.: **Indexers' reactions to PRECIS.** In: J. Doc. 35 (1979) No. 3, p. 164–178, 8 refs.
The background to the Liverpool Polytechnic study of indexer reactions to the PRECIS indexing system and the methodology of the study are described. Some of the findings are discussed, special attention being given to points which some indexers regarded as advantages and others as disadvantages; the alleged labour-intensiveness of PRECIS; the British Library and PRECIS; and the impact of PRECIS on the British library community. A thesaurus of terms used in the British Library PRECIS indexes is needed, and some consideration should be given to the possible simplification of PRECIS or modification to suit the needs of different users. Feedback from users of PRECIS indexes is required. (Author)

5474 Baron, G.: **Die Benutzung des Sachkataloges.** (The utilization of the subject catalogue). (In German). In: Z. f. Bibl. wes. u. Bibliogr. 26 (1979) No.4, p. 281–298
This pilot study was undertaken at the subject headings catalogue of the Free University Library, Berlin. Description of method, data collection, statistical data concerning the collection, evaluation of the study, results, negative retrieval, and costs. The article is introduced by a word from I. Nöther, Director of the Deutsches Bibliotheksinstitut, noting that an extended study of the subject headings catalogue of other libraries will not be realized. Any library wanting to do such a study for itself and interested to use the collection and evaluation programs may address itself to the Deutsche Bibliotheksinstitut.

5475 Ebinuma, Y.: **Use of the INIS Atomindex.** (In Japanese). In: Nihon genshiryoku gakkaishi 20 (1978) No. 11, p. 796–803
Presentation of different types of manual searches of the INIS Atomindex for end users. High recall ratios are assured from searching in either the main entry section or relevant subject categories or titles under two or three groups of main headings selected systematically without any knowledge of the category scheme and the INIS thesaurus. (Accord. orig. abstr.)

5476 Nitši, M. E., Kučerov, V. N.: **Some problems of using information languages in computer-based management systems.** (In Russian). In: Inform. processy v složn. sistemach. Kišinev, 1978. p. 48–59, 12 refs.

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