

## 0 Form Divisions

## 01 Bibliographies

3462 Viet, J.: *L'utilisation de Thesaurus pour le traitement de l'information en sciences sociales*. In: M.S.H. Inform., Suppl. (1977) No. 2, p. 6-10

List of thesauri produced with the help of the Service d'Échange d'Informations Scientifiques de la Maison des Sciences de l'Homme.

## 02 Literature Reviews

See also 3757

3463 Kušul, A. Ja.: *Major general library and bibliographical classifications abroad: a state-of-the-art survey*. (In Russian). In: Bibliotekoved. i. bibliogr. za rubežom 63 (1977) p. 62-85

Survey of papers published in the 1970s to present a summary of the present situation of DDC, UDC, LCC, CC and BC.

3464 Laqueur, M.: *Thesaurus - something remaining or not?* (In Dutch). In: Open 9 (1977) No. 4, p. 199-207, 60 refs.

A literature review on thesauri covering 1970-1975 publications dealing with the external aspects of the thesaurus, diversity of opinion on the definition of a thesaurus, on its usefulness and use and its relation to classification systems.

3465 Svenonius, E., Schmierer, H. F.: *Current issues in the subject control of information*. In: Libr. Quarterly 47 (1977) No. 3, p. 326-346, 43 refs.

Description of some of the changes having taken place since about 1900 in subject control which are summarized as existing in changes to improve subject control and changes to make subject control less costly. For the future one should look toward methods of machine or machine-aided indexing and thesaurus construction.

## 03 Dictionaries, Terminologies

3466 Beling, G., Hagen, P. T.: *Zur Terminologie der Klassifikation*. (In German). In: DK-Mitt. 18 (1974) No. 3, p. 11-14, No. 4, p. 15-19 (issued in 1977)

3467 Conrad, R. (Ed.): *Kleines Wörterbuch sprachwissenschaftlicher Termini*. (Short dictionary of linguistic terms.) (In German). Leipzig: VEB Bibliographisches Institut 1975. 306 p.

3468 Koreimann, D. S.: *Lexikon der angewandten Datenverarbeitung*. (Dictionary of applied data processing.) (In German). Berlin: de Gruyter 1977. 340 p. 248 refs.

## 04 Classification Systems and Thesauri

## 041 Universal Classification Systems

3469 Aitchison, J. (Comp.): *UNESCO Thesaurus*. A structured list of descriptors for indexing and retrieving literature in the fields of education, science, social science, culture and communication. Paris: Unesco 1977. Vol.1: XVII, 485 p., Vol.2: 530 p. = ISBN 92-3-101469-2 Vol.1 contains the introduction, a Classified Thesaurus, a Per-

mutated index, and a Hierarchical Display; Vol.2 contains the Alphabetical Thesaurus. The translation and adaptation into French and Spanish is foreseen for 1979-1980. Orders: Unesco, 7, Place de Fontenoy, F 75700 Paris.

3470 Coates, E., Lloyd, G., Simandl, D. (Comp.): *BSO. Broad System of Ordering. Schedule and Index*. Third Revision. The Hague, Paris: Fed. Intern. de Documentation (FID); Unesco 1978. 190 p., Dfl. 60,-; FID-Publ. 564

This 3rd rev. and first published edition contains an introduction, a list of the combination areas together with filing and combination orders, procedures for combining notation with examples, optimal facet for types of information sources, time and place facets, a first and second outline of the BSO, the schedule and an index. An "Introductory Manual to the BSO" is currently being prepared, to be published in 1979.

3471 Soergel, D.: Book review of Scheele, M.: *Ordnung und Wortschatz des Wissens*. Schlitz/Hessen: Verl. Guntrum II, 1977. 208 p. In: Intern. Classificat. 5 (1978) No. 2, p. 113-117

## 043 Dewey Decimal Classification, DDC

3472 *Schema di classificazione* (Classificatione decimale Dewey). (In Italian). Firenze: Ist. Cent. Cot. Unico Bibl. Ital. Inf. Bibliogr. 1977. 131 p., CNR

DDC scheme based on the 18th ed. used for the current Italian national bibliography.

## 045 Bliss Bibliographic Classification

3473 Mills, J.; Broughton, V.; Lang, V.: *Bliss Bibliographic Classification. Vol. 1. 2nd. Ed. (Vol.1: Introduction and Auxiliary Schedules. Class J: Education. Class P: Religion, the Occult, Morals and Ethics. Class Q: Social Welfare)*. London: Butterworths. 1977. 2nd Ed. Vol. 1: Introduction and auxiliary schedules. XIV, 209 p. ISBN 0-408-70821-2. Class J: Education. XVII, 21 p. ISBN 0-408-70829-8. Class P: Religion, the Occult, Morals and Ethics. XX, 43 p. ISBN 0-408-70832-8. Class Q: Social Welfare. XXIII, 36 p. ISBN 0-408-70833-6.

Book Review by K.G.B. Bakewell in Intern. Classificat. 5 (1978) No. 1, p. 43-44.

## 046 Colon Classification, CC

3474 Neelameghan, A.; Gopinath, M. A.; John, L.: *Colon Classification schedule for macrodocuments in political science*. (CC ed. 7 series. 5). In: Libr. Sci. Doc. 14 (1977) No. 3-4, p. 105-119, 30 refs.

The latest revision of Colon Classification (CC) schedules for the classification of subjects going with the primary Basic Subject Political Science, are presented with scope notes and working rules. An index to schedules and examples of subjects classified according to the scheme are presented. (Author)

## 04-1/9 Special Classification Systems - Subjects

(order follows the divisions as given in I.C. 75-1, p. 36)

3475 Rehm, H.: *Ausgewählte Schlagworte zur Mathematik*. (Selected catchwords for mathematics). Mit DK-Zahlen nach dem Stand von 1976. (In German). In: DFW Dokumentation 25 (1977) No. 3, p. 105-111. List of ca. 400 alphabetically ordered descriptors in the field of mathematics with their corresponding UDC numbers.

- 3476 **U4. Physique-chimie. Lexique.** (In French). Paris: CNRS 1978. 32 p.  
List of controlled descriptors used for the indexing of documents in the PASCAL file of the Documentation Centre of the CNRS.
- 3477 **Physics and astronomy classification scheme.** New York: Amer. Inst. Physics 1977. 105 p.  
The classification system is meant for the indexing of the articles published by the American Institute of Physics. Except for some minor changes the system is identical with the one accepted as the International Physics Classification System by ICSU AB.
- 3478 **Thesaurus der technischen Optik** (Thesaurus for the field of technical optics.) (In German). Stuttgart: Inform. u. Dok. zentr. f. d. gewerbl. Wirtsch. b. Landesgewerbeamt Baden-Württemberg, FB Dok. Optik 1976. 200 p.  
Contains around 3850 terms with around 2900 descriptors including names of companies and institutions, main part in alphabetical arrangement.
- 3479 Černyj, A. I., Miščenko, G. L.: **Tesaurus organizatsionnykh reaktsij.** (In Russian). Moskva: VINITI 1975. 236 p.
- 3480 **Thésaurus génie chimique.** 1977. (In French). Paris: CNRS 1977. 297 p. ISBN-2222021766  
Alphabetical list, hierarchical list of descriptors, alphabetical index of hierarchical list and permuted list of descriptors.
- 3481 **U6: chimie pure et chimie appliquée. Lexique 1978.** (In French). Paris: CNRS 1978. 85 p.  
Controlled list of descriptors used for indexing the documents of the PASCAL file of the Documentation Centre of CNRS in the fields of pure and applied chemistry.
- 3482 **U7. Energie. Lexique.** (In French). Paris: CNRS 1978. 41 p.  
Controlled list of descriptors for the indexing of the PASCAL file in the field of energy.
- 3483 **Energy microthesaurus.** A hierarchical list of indexing terms used by NTIS. Springfield, Va.: U.S. Dept. of Commerce. Natl. Techn. Inform. Service 1976. 103 p. = PB 254 800  
Hierarchical integration of the vocabulary of five other thesauri to allow easier retrieval for energy terms. More than 900 terms were chosen for their usage in expressing energy concepts including those for fuels, fuel sources, energy demand, conservation, electric power generation, heating, energy conversion, and fuel processing.
- 3484 **U2. Sciences de la terre. Lexique.** (In French). Paris: CNRS 1978. 35 p.  
Controlled descriptor list for indexing documents in the fields of the geosciences.
- 3485 **Deutsche Dokumentationszentrale Wasser eV (Ed.): Ordnungssystematik zur Dokumentation Wasser: T.1, DK-Fachausgabe Wasser 1977.** (Systematics for the Documentation System 'Water': Pt.1 of the UDC Special Subject Ed. concerning water 1977.) (In German). Bielefeld: E. Schmidt Verl. 1977. 379 p. = FID 562.  
Special trilingual German-English-French edition, comprising branches of water and sewage engineering and related fields. UDC is up-to-date with Oct. 31, 77.
- 3486 Bokij, G. G. et al.: **Minerals thesaurus (Vol.II.) (R-D, D-R)** (In German and Russian). Moskva: VINITI. ZIID 1977. 336 p.  
Comprises 1708 terms of which 741 are descriptors of the following minerals: native elements, intermetallic compounds, halides, multiple oxides and hydroxides.
- 3487 **U8: Métallurgie, sciences de l'ingénieur. Lexique 1978** (In French). Paris: CNRS 1978. 83 p.  
Controlled descriptor list for indexing documents of the PASCAL file in the field of metallurgy and engineering.
- 3488 **U5: Sciences de la vie. Lexique 1978.** (In French). Paris: CNRS 1978. 191 p.  
Controlled descriptor list used for the indexing of documents of the PASCAL file in the fields of the biosciences.
- 3489 Foote, R. H.: **Thesaurus of entomology.** College Park, Md.: Entomological Society of America 1977. 299 p.  
Main part in systematic arrangement, about 9000 terms are grouped in 14 major subject-matter parts. Alphabetical part with broader and narrower terms provides index to hierarchical section.
- 3490 **Thésaurus, anatomie des vertébrés.** (In French). Paris: BNIST-291-270 1977. 60 p.
- 3491 **Thesaurus of terms for aquatic sciences and fisheries.** Roma: Food and Agriculture Organisation 1976. 253 p.  
Lists ca. 3000 descriptors, results from experience in the indexing of Aquatic Sciences and Fisheries Abstracts.
- 3492 Lavrenova, O. A. et al.: **Information retrieval thesaurus for the Sojuzseljchoztechnika system scope.** (In Russian). Moskva: CNIITEI 1977. 184 p.  
Thesaurus for agricultural machinery intended as a part of an overall effort towards a computer-based specialized STI system.
- 3493 **AGRIDOC, I.N.R.A.: Thesaurus reproduction animale (mammifères, oiseaux).** Edition provisoire, oct. 1977. (In French). Paris: BNIST-291-270, 291-955 1977. 45 p.  
Alphabetical list of terms and their relationships.
- 3494 **U7: Sciences agricoles. Lexique 1978.** (In French) Paris: CNRS 1978. 24 p.  
Controlled descriptor list for the indexing of documents in the PASCAL file in the fields of agriculture.
- 3495 Breitling, W. (Comp.): **FAO Documentation Centre Thesaurus.** Sect.1: Forestry. Sect.2: Meteorology. Sect.3: Population. Roma: Food and Agricultural Organization 1974-1975. 3 vols. 105 p.  
Index term list consists of 11 400 terms.
- 3496 Leatherdale, D. (Comp.): **Cassava Thesaurus.** Cali: Centro Internacional de Agricultura Tropical 1977. 146 p.  
A categorized listing under 13 subject headings of the vocabulary and an alphabetical index to it.
- 3497 **Environmental Microthesaurus: a hierarchical list of indexing terms used by NTIS.** Springfield, Va.: National Technical Information Service 1977. III, 100 p., PB-265 261, \$ 21.-  
Contains two sections, (1) with more than 1800 terms that express environmental concepts relating to water, air, noise, and radiation pollution, disposal of solid waste, and environmental health, (2) lists more than 550 chemicals, important to environmental studies. The terms have been drawn from four existing thesauri as well as from free language. The four are the DDC, ERDA, NASA Thesaurus and TEST.
- 3498 **Thésaurus phytopharmacie.** Vocabulaire de phytologie et de phytopharmacie. Produits phytopharmaceutiques. (In French). Paris: BNIST-291-169 1977. 241 p.
- 3499 Houyoux, P. (Comp.): **La propension aux accidents: thésaurus et bibliographie.** (In French). Trois-Rivières, Canada: Université du Québec à Trois-Rivières 1976. 116 p., \$ 7.-  
A thesaurus of some 250 descriptors arranged in eight diagrams corresponding to eight fields, among which 'analysis of the accident', 'psychology of the injured', 'physiology of the injured', 'models'.
- 3500 **Thesaurus of Psychological Index Terms.** 2nd ed.

Washington: Amer. Psychological Assoc. 1977. II, 300 p. About 200 terms have been added to the first edition. The hierarchical section of the 1974 Thesaurus has been given up.

3501 Alvin, G. M.: **Thesaurus of planning terms** from the Atlanta Regional Commission Library. Monticello, Ill.: Council of Planning Librarians 1978. 19 p. \$ 2.-

3502 Rosenberg, P. M.: **The urban information thesaurus**. A vocabulary for social documentation. Westport, Conn.: Greenwood Press 1977. 375 p. = ISBN 0-8371-9483-0

Prepared at the University of Baltimore by The Baltimore Region Institutional Studies Center (W.T. Dürr, Director). Thesaurus "is weighted toward the areas of planning, urban development, human services and social history". The book contains: Preface. User's Guide. Glossary. Bibliography. A KWOC Index of the terms, a Main Index (alphabetical), a Hierarchical display, a Geographic Index and a List of Qualifiers.

3503 **Thesaurus Betriebswirtschaft**. (Thesaurus microeconomics/business management) (In German). Frankfurt: Rationalisierungskuratorium der Deutschen Wirtschaft (RKW) 1976-1977. 1000 p., 2 vols. Alphabetical list and systematic list of all descriptors.

3504 **Fachordnung Technik**. (Subject order technology). (In German). Frankfurt: Dok. Kraftfahrwesen, Dok. Maschinenbau u. Zentralst. Dok. Elektrotechnik beim VDE 1977. 43 p.

With this subject order for the technological fields a rough ordering of some 800 classes is intended.

3505 Sawilla, E.: **Thesaurus Feinwerktechnik**. (Thesaurus Precision Mechanics). Ein alphabetisches und systematisches Verzeichnis von Fachbegriffen in der Feinwerktechnik. (In German). München-New York: Verlag Dokumentation Saur KG 1978. XX, 564+196 p., DM 120,- ISBN 3-7940-7046-X

Comprises 7500 concepts from 18 subject fields, developed from a collection of about 12 000 terms based on some 20000 documents from precision mechanics literature. Pt. 1 in alphabetical arrangement, Pt. 2 arrangement according to the 18 fields.

3506 **Thesaurus Feinwerktechnik: Ein Verzeichnis inhaltskennzeichnender Begriffe zum Verschlüsseln und Wiederauffinden der feinwerktechnischen Fachliteratur**. (Thesaurus precision mechanics) (In German). Offenbach: Fachinformationszentrum Technik e.V., Fachabt. ZDE 1978. 212 p., DM 80,-

Contains ca. 3900 concepts and 4900 terms in alphabetical order.

3507 Osaka-Shōin Women's Univ.: **Specialized classification system for clothing**. (In Japanese). In: Dokument, Kenkyū 27 (1977) No.8, p. 369-374, 4 refs.. The classification is organized in facets.

3508 **DKF-Thesaurus**. (Ein Verzeichnis von inhaltskennzeichnenden Begriffen zum Verschlüsseln und Wiederauffinden der Fachliteratur. (Thesaurus automotive engineering) (In German). Ludwigsburg: Dokumentation Kraftfahrwesen 1977. 519 p.

Contains some 7912 concepts and 8730 terms.

3509 **Thésaurus sciences de l'information**. (In French). Paris: CNRS 1977. 97 p., ISBN 2222021855

3510 Viet, J.: **Thesaurus mass communication**. (E,F,S) Paris: Unesco 1975. 4 vols, 304 p.

Arrangement of descriptors in Pt.1 according to subject fields and in Pt.2 alphabetically for each language, English, French, Spanish.

3512 National Computing Centre (NCC): **Thesaurus of computing terms**. 8th ed. Manchester, England: National Computing Centre (NCC) 1976. 164 p., ISBN 0-85012-169-8

Thesaurus in hierarchical and in alphabetical arrangement.

3513 Quincieux, A.: **Liste de descripteurs pour une documentation dans le domaine linguistique**. 2nd ed. (In French). Nancy: Université de Nancy 2. Centre de Recherches et d'Application de Linguistique Quantitative (CRAL) 1974. 17 p.

List contains 475 descriptors which may be combined. It is presented in 4 columns, in hierarchies.

## 05 Periodicals and Serials

3514 **Les Cahiers de l'Analyse des Données**. Paris: Laboratoire de Statistique de l'Université Pierre-et-Marie-Curie (Tour 45-55, 23 Etage, Bureau 6, 4, place Jussieu, 75005 Paris). Abonnement et Publicité: C.D.R.Centrale des Revues, B.P. No.119, 93104 Montreuil Cedex, France. 4/ann., France 165 F., Étranger: 200 F., 1 (1976) No.1. (In French).

To give an example of the coverage of this periodical the articles of No. 1-1978 are cited as follows: Bruynooghe, M.: Ascending hierarchical classification of large data sets: a fast algorithm based on the construction of reducible neighbourhoods (CLAS. RAP.). - 3515 Bruynooghe, M.: The distance to urban public services in Languedoc-Roussillon: correspondence analysis and automatic classification for a set of 1561 communes (COMMUNES). - 3516 Cohen-Hallalely, I. and R.-M.: Attitudes of Iranian peasants in the agrarian reform: analysis of a survey (IRAN). - 3517 Brun-Chaize, Mme.: Woodland scenery: analysis of criteria in public preferences using photographs (PAYSAÛGE). 3518 Benzécri, J. P.: Data analysis in particle physics (PHYS.COR.) III. 3519 Benzécri, J. P., Cazes, P.: Problem of classification. 3520 Cazes, P.: Problem of discriminant analysis (CLOÏSON OPTIMALE).

3521 **Conceptus**. Zeitschrift für Philosophie. Innsbruck/München/Salzburg/Graz/Gießen. 1 (1967). 1-2/ann. Editorial Board: J. Zelger, J. Ch. Marek, H. Ganthaler, R. Born, Luis Zueggstr. 12, A-6020 Innsbruck. Sonderband, Conceptus, Jg. 11 (1977) No.28-30: Österreichische Philosophen und ihr Einfluß auf die analytische Philosophie der Gegenwart, Bd.1. This special issue contains 27 articles and 12 book reviews concerned with the Austrian contribution to contemporary analytical philosophy, among which some having a direct bearing on problems of the organization of knowledge, especially its categorization and the construction and reconstruction of concepts.

## 06 Conference Reports, Proceedings

3522 Walker, D. E., Karlgren, H., Kay, M. (Eds.): **Natural language in information science**. Perspectives and directions for research. Stockholm: Skriptor 1978. 194 p.

Papers of a Workshop on Linguistics and Information Science, Biskops-Årmö, 3-5 May 1976, organized by the Committee on Linguistics in Documentation of the International Federation for Documentation and KVAL. Concerning the papers please see entry 3153 in Intern. Classificat. 5 (1978) No.1, p.49. List of the 30 participants. No discussions.

3523 Sneath, P. H. A.: **Report of a Meeting of the European Branch, 29 September 1976, on Classification and Phylogeny**. In: Class. Soc. Bull. 4 (1977) No.1, p. 15-18.

Summarizes the papers by D. Boulter (University of Durham) on "Problems and progress in the use of aminoacid sequence data in plant phylogenetic studies", 3524 Brisby, F. A.: (University of Southampton): The evolutionary implications of discordance between different character sets in higher plants, 3525 Parker-Rhodes, A. F.: Taxonomy and evolutionary status, 3526 Sneath, P. H. A. (University of Leicester): Methods of distinguishing reliable indicators of phylogeny, 3527 Cain, A. J.: The difficulty of inferring phylogeny.

3528 **General Classification Systems in a Changing World**. Proceedings of the FID Classification Symposium held in Commemoration of the Dewey Centenary.

Brussels, Nov. 1976. The Hague: Féd. Intern. de Documentation (FID) 1978. 107 p.

The 15 papers of this symposium have been rearranged in 5 groups: I. Historical and general (1-7), II. Use of the UDC in automated systems (8-10), III. Comparison of the UDC with other classifications (11-12), IV. Dewey Decimal Classification (13), V. Problems of classification development (14-15). The papers: 3529 Arntz, H.: Opening speech. 3530 Wijn, J. H. de: One century Decimal Classification: a comparison between the Dewey Decimal Classification and the Universal Decimal Classification. 3531 Praal, B. R.: Need, functions and foundations of a present-day general classification. 3532 Lobova, L. V.: UDC-based centralized classification of scientific and technical information in the USSR. 3533 Sandison, A.: The special needs of a classification for books and journals. 3534 Sealock, R. B.: International commitments of the Dewey Decimal Classification. 3535 Öhman, E.: Alphabetic indexes to Chinese classification systems. 3536 Rigby, M.: A century of mutation of the Decimal Classification. 3537 Barnholdt, B.: ALIS - Automated Library Information System of Danmarks Tekniske Bibliotek with UDC retrieval facilities. 3538 Mekhtiev, D. M.: Use of the Universal Decimal Classifications, based on a comparative study of the UDC and the Soviet Library-Bibliographical Classification. 3540 Scibor, E.: UDC in relation to thesauri (an attempt to make a state-of-the-art report). 3541 Custer, B. A.: The responsiveness of recent editions of the Dewey Decimal Classification to the needs of its users. 3542 Dahlberg, I.: Dewey's decimalism and the value of adequate concept notations for science organization and communication. 3543 Schmidt, A. F., Wijn, J. H. de: Future development of the UDC. - List of participants.

3544 Hegseth, B. L., Thalberg, K.: **UDC and EDP.** Oslo: Riksbibliotekstjenesten 1977. 84 p., ISBN 82 7195 013 4

3 Lectures from a seminar held in Oslo, Nov. 1976: Lloyd, G. A.: UDC - past, present and future. 3546 Rigby, M.: Experience in the use of UDC/EDP: in on-line and batch-processing, especially in publication of lists of terms, schedules, and bibliographies. 3547 Sydler, J.-P.: UDC and automation. Copies may be requested from K. Thalberg, Chief Librarian, Riksbibliotekstjenesten, P.O. Box 2439, Solli, Oslo 2, Norway.

3548 Dikareva, S. S., Michajlova, N. G.: **Symposium on descriptor thesauri.** (In Russian). In: Nauč.-techn. inform. Ser. 2 (1977) No. 7, p. 14

Short report on an inter-university symposium on "Problems of Scientific-Technical lexicography and Descriptor Thesauri for Information Retrieval Systems", sponsored by the A. A. Ždanov University of Leningrad, 25-26 Jan. 1977. The topics of the lectures are mentioned.

3549 Gordon, J. A., Turnbull, A., Walker, R., Wallis, E. J.: **Proceedings of the 1st Scottish Conference of the Society of Indexers,** Edinburgh, 26 March 1977. In: Indexer 10 (1976/77) No. 4, p. 201-209

Report on the papers by Gordon (overview on history, development and targets of the Society), Turnbull (the publishers view of indexing), Walker (how a dictionary is made), and Wallis (indexing techniques and standards; developing role of the registrar of indexers).

3550 **Sprachwissenschaft und Terminologiearbeit (II).** (Linguistics and terminology - II.) (In German). Düsseldorf: Arb. gem. f. Rationalisierung d. Landes Nordrhein-Westfalen 1977. 159 S. = AGR 179

Lectures of a meeting of the Working Group on Normalization, April 5, 1977, including discussions. 3551 Pelka, R.: Grundsätzliche linguistische Probleme der Vereinheitlichung und Normung von Terminologien. 3552 Dubrulle, G.: Der Begriff der Definition aus philosophischer Sicht - Epilog zu einem ungesprochenen Prolog. 3553 Schnegelsberg, G.: Die Bildung eines fachsprachlichen Bezugssystems aus textilspezifischen Begriffen durch Verschachtelung logifizierter Begriffsfelder. 3554 Blechschmidt, H. H.: Nationale und internationale Terminologiearbeit auf dem Gebiet der Elektrotechnik. 3555 Fugmann, R.: Nutzen und Grenzen der Terminologiearbeit aus der Sicht der Forschung. 3556 Beling, G.: Terminologie als pragmatisch zu lösendes Umweltproblem. 3557 Wersig, G.: Terminologiearbeit als

Beitrag zur Kommunikationspraxis - Kommunikation als Bezugsrahmen für Terminologie.

3558 MacCafferty, M.: "About Aboutness", **Co-ordinate Indexing Group Colloquium held at Aslib, April 18, 1977.** In: J. Informatics 1 (1977) No. 3, p. 121-122. Report on contributions made by Kevin Jones; R. Moss; Michael Keen; Robert Fairthorne; Hutchins; D. F. Swift.

3559 **Abstracts of communications to a Meeting of the North American Branch, April 1977.** In: Class. Soc. Bull. 4 (1977) No. 1, p. 19-29

3560 White, L. J., Mittal, S.: Automatic sequential document classification. - 3561 Small, H. G., Koenig, M.: Journal clustering using a bibliographic coupling method. - 3562 Preece, S.E.: Retrieval, clustering, and automatic indexing of bibliographic items using a spreading activation network model. - 3563 Salton, G.: Automatic clustering of research papers with applications to the construction of taxonomies. - 3564 Enslein, K. et al.: A toxicity prediction system. - 3565 Jolley, M. J. et al.: An approach to the classification of chemical compounds using mass spectra. - 3566 Sacco, W. et al.: Pattern recognition applications in chemistry and pharmacology. I. An overview of research studies at the Chemical Systems Laboratory. - 3567 Day, W. H. E.: Validity of clusters formed by graph-theoretic cluster methods. - 3568 Cope, D. A.: Cluster analysis models and methods. - 3569 Dunn, D. M. et al.: Analyzing clustering effects across time. - 3570 Van Ness, J.: High dimensionality problems in computer assisted medical diagnosis. - 3571 Devroye, L. P., Wagner, T. J.: Asymptotic properties of clustering algorithms. - 3572 Goldstein, M.: Models in discrete discriminant analysis. - 3573 Matula, D.: Graph-theoretic techniques for cluster analysis algorithms. - 3574 Rohlf, F. J.: Fast algorithms for agglomerative clustering. - 3575 Friedmann, J. H.: Fast algorithms for finding nearest neighbors and minimum spanning trees. - 3576 Skinner, H. A.: Construct validation and psychiatric classification. - 3577 Lewinson, Th. M.: Probabilistic similarity, hierarchy and missing data - A cardiac data application. - 3578 McShane, M. G.: An empirical classification of U.S. Medical Schools. - 3579 Mickevich, M. F.: Taxonomic congruence. - 3580 Strauch, J. G. Jr.: The stability of estimates of the phylogeny of the Charadriiformes (Aves: An empirical comparison of Wagner trees and character compatibility analysis). - 3581 Barron, B.: The differential diagnosis - The classification process in clinical medicine.

3582 Selander, E.: **A terminology seminar in an international environment.** (In Swedish). In: T. Dokument.33 (1977) No. 5, p. 77-80

Report on the subjects and discussions of a terminology seminar held at Honolulu during a linguistic seminar, July 1977.

3583 Gilyarevskij, R. S.: **Conference on information retrieval languages.** (In Russian). In: Naučno-techn. inform. Ser. 2 (1977) No. 11-12, p. 57-59

The author reports about the All-Union Scientific Conference "The united system of information retrieval languages" that took place in Urmala Latvian SSR, 6-8 Sept. 1977. Recommendations approved by the conference are given.

3584 **Edinaja sistema informacionno-poickovykh jasykov.** (Unified system of information retrieval languages: summaries of papers presented at an All-Union Conference held in Yurmala, Latvian SSR, 6-8 Sept. 1977). (In Russian). Riga: Latv. Universitet 1977. 170 p.

The following papers were presented: 3585 Agraev, V. A.: The language in management systems. - 3586 Mdivani, R. R., Archangel'skaja, V. A.: The relationship between the classificatory and the subject approach in the analytico-synthetic information processing. - 3587 Šemberko, L. V., Bogdanova, N. V.: Linguistic support for a data retrieval system in the socio-political field. - 3588 Bagrad, M. V.: A global system of unified retrieval language systems. - 3589 Balkonskoj, B. E.: Redefining major notions in the terminological and logical aspects of diagnostic retrieval systems in biology. - 3590 Beloseroj, V. N.: A language construction algorithm for classification position. - 3591 Budjko, N. S.: Retrieval system efficiency and retrieval language requirements. - 3592 Vachabov, V. K., Ivanov, P. P.,

Mironov, A. M., Falkov, F. B.: Aspects of linguistic support for specialised information systems within the State-wide Automated Scientific and Technical Informations System (GASNTI). — 3593 Vilenskaja, C. K.: Information network linguistic support. 3594 Vorobjev, G. G.: Retrieval language informational evaluation criteria. — 3595 Včerašnij, R. P., Bunova, M. A.: Compatibility among classificatory retrieval languages. — 3596 Giljarevskij, R. S.: A note on the compatibility between retrieval language types. — 3597 Gluškov, V. M., Skorochodjko, E. F., Stognij, A. A.: Measuring the compatibility level of document retrieval languages. — 3598 Gruzitis, B. E., Sover, N. B., Morozov, V. A.: Some design concepts and the structure of a compatible language system of a republic computer-based STI system. — 3599 Daniilov, M. P., Lesochina, E. I., Smirenskij, V. B.: The social sciences thesaurus system. — 3600 Ivanov, V. S.: Linguistic problems in interactive retrieval. — 3601 Kosačkov, L. S.: The LK language: a multilevel systems description and analysis language. — 3602 Kiričenko, S. M.: Aspects of a general theory of classification. — 3603 Kiskii, P. Ch.: On a unified living being classification system. — 3604 Klimačeva, A. I.: The retrieval language of an automated patent bibliographic data processing system. — 3605 Konšin, G. I.: Contribution to the problem of compatibility between classificatory and descriptor languages. — 3606 Konšin, G. I., Moskalenko, Z. D.: Information language compatibility problems in the context of an evolving information network in a field: with special reference to the "Geology" automated STI system. — 3607 Kosmačeva, N. V., Makurina, R. G.: Vocabulary compatibility of different IR systems in a field, with special reference to the "Electrical Engineering" and "Source" computer-based IR system. — 3608 Kočetova, S. M., Murinson, E. A., Šenderov, V. Z.: The philosophy of interfacing classificatory and descriptor languages. — 3609 Šorochov, I. M., Šorochova, L. I.: Development of retrieval languages for the field of art as a component part of a unified retrieval language system. — 3610 Kuznecov, A. I.: Towards the interfacing of primary techno-economic data with a basic classification. — 3611 Lebedeva, L. N., Borisova, M. N.: Classification of procedural information on MIS development. — 3612 Levita, R. Ja., Vjaljsova, S. A., Kločkov, V. L.: Experience in the use of a retrieval language in documentation unification for a sectoral MIS. — 3613 Lobanov, A. L.: Development problems of a common diagnostic system in biology. — 3614 Mazur, S. A.: Linguistic support for Moldavia's Social Sciences Information Centre. — 3615 Martynov, V. V.: USK: a sense description and calculus language. — 3616 Maršakova, I. V.: Use of a citation language to develop information file classification schemes. — 3617 Neguljaev, G. A., Tarasova, G. A.: Concerning the effectiveness of joint use of retrieval languages in an automated patent search system. — 3618 Orlov, A. N.: Social sciences-related problems of compatibility between a subject heading language and a descriptor language. — 3619 Pšeničnaja, L. E.: On the compatibility between thesaurus vocabularies in an IR system. — 3620 Paščenko, N. A.: Automation problems of text indexing in ASSISTENT. — 3621 Rudeljsjon, K. I.: Aspects of language development for computer-based archival IR systems in connection with the task of interfacing with the All-Union Information Classification. — 3622 Sakov, A. A., Sonečkina, E. L., Umanski, A. N.: Advances made in the development of a common techno-economic information classification and coding system and possible approaches to its interfacing with a scientific-technical information classification. — 3623 Skripkin, V. A.: The ISTIS linguistic support today and tomorrow. — 3624 Smirenskij, V. B.: Concerning the need for a classificatory-descriptor language. — 3625 Smorgunova, E. M.: Control vocabulary design and maintenance philosophy: a contribution to the theoretical foundation of linguistic support for the State-wide Automated Scientific and Technical Information System. — 3626 Sokova, A. N.: Managerial documentation: an attempt at a document systematics. — 3627 Sokolov, A. V.: Towards the development of a system of general information-retrieval categories. — 3628 Tafipoljskaja, M. Ja.: A UDC-oriented auto-indexing optimisation method, including automatic indexing evaluation by expert judgments. — 3629 Trapeznikova, L. V.: A note on the development of a standard system of common divisions. — 3630 Cukerman, E. M.: The subject authority list as an information retrieval language. — 3631 Černyj, A. I., Paščenko, N. A.: The design and utilisation philosophy of the set of language tools for the ASSISTENT, VINITT's integral information system. — 3632 Černyj, A. I., Paščenko, N. A.:

A descriptor IR language and its role in ASSISTENT. — 3633 Šapiro, E. L.: Scientific communication levels and retrieval language system levels. — 3634 Sastova, G. A.: Linguistic tools for State-wide Automated Data Bases designed for the State-wide Automated System control objects. — 3635 Ševjakova, L. A., Miščenko, G. L.: Information languages for input and retrieval of organic compound and reaction data. — 3636 Šrejder, Ju. A.: Classification in the VINITI information publications. — 3637 Štein, V. S., Viteljs, A. E., Safronova, R. N., Sokolova, G. A.: Use of classifications in man-machine dialogue. — 3638 Margulis, A. M., Vychodcev, L. A., Šuchman, E. S.: Automated maintenance of interrelated classifications. — 3639 Margulis, A. M., Vychodcev, L. A.: Questions of compatibility of MIS linguistic means.

3640 Walther, H.: **Rationelle Erschließung und Indexierung wissenschaftlich-technischer Dokumente.** (Rational Indexing of scientific and technical documents.) (In German). In: *Informatik* 25 (1978) No. 2, p. 38–39  
Report about a conference devoted to the topic in the title which took place in Karl-Marx-Stadt, Oct. 1977, with some 230 participants. The following 6 papers were presented: 3641 Kobblitz, J.: Bedeutung informativer Erschließungsergebnisse für die Informationsverarbeitung. — 3642 Manecke, H.-J.: Fachgebietsbezogene Indexierregeln als methodische Hilfsmittel für die inhaltliche Analyse. — 3643 Steiger, R.: Paradigmatische und syntagmatische Beziehungen und ihre Berücksichtigung in Indexierungsergebnissen. — 3644 Pilz, J.: Möglichkeiten und Grenzen der Darstellung von Sachverhalten in Deskriptorenketten. — 3645 Richter, K.: Zum Informationsgehalt von Deskriptorenketten. — 3646 Bauer, G.: Anwendung thesaurusartiger grafischer Hilfsmittel für eine problemlösungsfördernde Informationsaufbereitung — ein Beitrag zur Intensivierung der Forschung. — The conference was chaired by Dr. P. Herrmann, Forschungsinstitut für NE-Metalle, Freiberg, DDR. The conference papers may be had from the Kammer der Technik, 901 Karl-Marx-Stadt DDR, Postschließfach 504.

3647 **Lecture series "Intentions and Methods of Indexing"** sponsored by the Komitee Klassifikations- und Thesaurusforschung (KTF). In: *Deutscher Dokumentartag 1977*. Deutsche Gesellschaft für Dokumentation (Hrsg.), M. v.d. Laake, P. Port (Bearb.): München/New York: Verl. Dokumentation 1978, p. 385–486  
3648 Henrichs, N.: Intentionen und Methoden der Indexierung — Einführung in die Thematik. 3649 Dahlberg, I.: Klassieren versus Indexieren. Versuch einer Typisierung. — 3650 Jansen, R.: Intentionen der Indexierungsnorm DIN 31623 und Überlegungen zum Verhältnis gleichordnende/syntaktische Indexierung. — 3651 Franz, H.: Indexieren im Hinblick auf ergebnissichere Recherchen, dargestellt am Beispiel der Patentedokumentation. — 3652 Fugmann, R.: Besonderheiten des Indexierens für große Retrieval-Systeme. — 3653 Henzler, R. G.: Freie oder kontrollierte Vokabularien: Benutzererfahrungen mit biomedizinischen Informationssystemen. — 3654 Schmitz-Esser, W.: Terminologie als Frage der Wirtschaftlichkeit von Texterschließung und Retrieval.

3655 Gopinath, M. A.: **DRTC Annual Seminar (15)**. In *Intern. Classificat.* 5 (1978) No. 2, p. 93–94.  
Report on the Recommendations which were released at the occasion of the 15th Annual Seminar of the Documentation Research and Training Centre, 5–9 December 1977, Bangalore, the main topics of which: (1) Classification and Indexing for Social Sciences and (2) Information for Development.

3656 Schuck, H. J.: **Technical languages and the common language.** In: *Intern. Classificat.* 5 (1978) No. 2, p. 94–95  
Report on the Annual Convention of the German Language Institute, Mannheim, 14–17 March 1978 which was devoted to the topic "Technical Languages and the Common Language".

3657 Dahlberg, W.: **Cooperation in classification.** In: *Intern. Classificat.* 5 (1978) No. 2, p. 95–98, 2 refs.  
Report on the 2nd Conference of the Gesellschaft für Klassifikation, Frankfurt-Höchst, 6–7 April 1978 devoted to the topic "Cooperation in Classification".

3658 Svenonius, E.: **First CCRG Conference, Melrose 1978**. In: Intern. Classificat. 5 (1978) No. 2, p. 98–100 Report on the conference of the Canadian Classification Research Group, May 5–7, 1978, Michaelite House, Melrose near London, Ontario.

## 07 Textbooks

3659 Bakewell, K. G. B.: **Classification and indexing practice**. London: C. Bingley; Hamden, Conn.: Linnet Books 1978. 216 S., ISBN 0 85157 247 2 (Bingley), ISBN 0 208 01671 6 (Linnet)

Treats in special chapters the DDC, UDC, LCC, BC, CC, and special classification schemes, as well as the pre- and postcoordinate alphabetical subject approach, and the problems of reclassification. In an appendix a comparative classification is given of ten titles by the five major general schemes as found in some of the libraries visited.

3660 Borkowski, L., Kreiser, L. (Ed.): **Formale Logik. Logische Systeme**. Einführung in die Metalogik. Ein Lehrbuch. (In German). München: Verlag Beck 1977. = ISBN 3-406-06802-2

3661 Engelbert, H.: **Informationsrecherchesysteme in der Wissenschaft**. (Information retrieval systems in science) (In German). Berlin (Ost): Akademie-Verlag 1978. 276 p.

Contains a.o. also a chapter on information retrieval languages as "foundational element of the information retrieval system", and in another chapter some sections on indexing and its implications.

3662 Greiner, G.: **Allgemeine Ordnungslehre**. (General Theory of order). Frankfurt am Main: Deutsche Ges. f. Dokumentation, Lehrinstitut f. Dokumentation 1978. 104 p., 68 refs.

Second draft of a collection of lecture materials used in the teaching of classification and indexing at the Lehrinstitut für Dokumentation (LID) of the German Documentation Society (DGD). Contains many changes, some supplements and some deletions as compared with the first edition (1974). Special classification systems have been described only insofar as they contribute to basic questions of ordering. (Acc. to Author)

3663 Horowitz, E., Sahni, S.: **Fundamentals of data structures**. Woodland Hills, Calif.: Computer Science Press, Inc., 1976, 564 pp., ISBN 0-914894-20-X. Topics include arrays, stacks, queues, lists, trees, graphs, sorting, searching, symbol tables and files.

3664 Steinhausen, D., Langer K.: **Clusteranalyse**. Einführung in Methoden und Verfahren der automatischen Klassifikation. (In German). Berlin/New York: W. de Gruyter 1977. 206 S. DM 34,- = ISBN 3-11-007054-5 Einleitung – Grundzüge multivariater Verfahren – Ähnlichkeits- und Distanzfunktionen – Clusteranalysealgorithmen – Spezielle Probleme – Zusammenfassender Überblick – Grundbegriffe aus der Mengenlehre und Linearen Algebra – Literatur – Autoren- und Sachregister.

3665 Wersig, G.: **Thesaurus-Leitfaden**. Eine Einführung in das Thesaurus-Prinzip in Theorie und Praxis. (In German). München/New York: Verlag Dokumentation Saur KG 1978. 346 S., DM 48,- = DGD-Schriftenreihe, Bd.8; ISBN 3-7940-3628-X

Contains the following chapters: 1. Conceptual determinations. 2. Functions of a thesaurus. 3. Structure of a thesaurus. 4. Parts of a thesaurus. 5. Thesaurus construction and maintenance. 6. Thesaurus types and examples. References. Index.

## 09 Standards, guidelines

3666 **Methodische Rahmenregelung zur Erarbeitung von einsprachigen Informationsrecherchetesauren**. (Methodological guidelines for the elaboration of monolingual thesauri for information retrieval) (In German). Ber-

lin (Ost): Zentralinst. f. Inform. u. Dokument. d. DDR 1977. 116 p.

Contains the guidelines, a list of abbreviations, a glossary and a bibliography.

# 1 Theoretical Foundations of Classification

## 12 Conceptual Basis of Classification

See also 3521

3667 Balk, M.: **On patent categories**. In: Intern. Classificat. 5 (1978) No. 2, p. 65–72, 10 refs.

A patent category system featuring eight patent category concepts is proposed. These are obtained through an interpretation of concept structures, which in turn are obtained through a combination of the concepts "material", "form", "forward movement", "backward movement", and "effect". Two anterior derivation principles are employed to narrow down the total of 32 combinations or concept structures, also called "substitutions", to eight concept structures which can be interpreted as patent category concepts. The interpretation of these structures is determined by their essential aspects. The patent category system proposed can be regarded as relatively self-contained and relatively completed. (Author)

The article appeared also in German: **Über Patentkategorien**. In: Mitt. d. Dt. Patentanwälte 69 (1978) No.5, p. 81–89.

3668 Biller, H., Neuhold, E. J.: **Concepts for the conceptual schema**. In: Modelling in Data Base Management Systems. Proc. of the TC-2 Working Conf. in Nice 1977. Amsterdam: North Holland 1977.

3669 Bojar, B.: **On metainformation and metalanguage**. (In Polish). In: Zg. inform. nauk. (1976) No.2, p.43–60

Special metainformational languages are e.g. information retrieval languages. Language constitutes an important element of an information layout, so a higher-order information, formulated in a higher-order language, or metalanguage may concern it too. (Author, abbr.)

3670 Čebanov, S. V.: **Classification theory and the classifying methods**. (In Russian) In: Naučno-techn. inform. Ser. 2 (1977) No.10, p.1–10, 8 figs., 13 refs.

The intensional aspect of classification theory is linked up with meronymy. In this case, an archetype is put into correspondence to each taxon; merons can be distinguished in the archetype. A meron is reflected in cognition as a feature appearing in two aspects; as a symptom detectable in the object and as a term that can be reflected in a description. The problem of a natural system is conceived as reconstruction of an object's description from the description of the taxon to which the object belongs. The notion of homology is examined and the concept of homotypy is introduced. Proceeding from description of taxons, a way to devising an hierarchical combinatorial system is considered. (Author)

3671 Dahlberg, I.: **Ontical structures and universal classification**. Bangalore, India: Sarada Ranganathan Endowment for Library Science 1978. 64 p.

11th Sarada Ranganathan Lectures held in Bangalore from Dec. 5–9, 1977. Contains the following five lectures: On developments in classification. Elements of classification systems. Ontological foundation of a modern classification system. Construction of a universal classification of knowledge fields. Classification systems application. References. Index.

3673 Miller, G. I.: **The use of categorial analysis in subject indexing: a comment**. (In Russian). In: Zadači centraliz. bibl.-inform. raboty. Moskva: 1976. p. 84–96

Aspects of the use of categorial analysis in determining the conceptual structure of the subject catalogue language at the INION Department of Information System Linguistic Support are treated.

3674 Mönke, H.: **Definitionstypen und Definitionsmatrix.** In: *Nachr. Dok.* 29 (1978) No.2, p. 51–60, 22 refs. The author investigates the theoretical and practical aspects of definitions on the basis of the works of philosophers and other scholars from antiquity down the present. It is shown that the results of research on the part of logicians over the past twenty centuries are largely ignored by contemporary practitioners of the art of definition. Pragmatic requirements, intrinsic relations and the accumulated scientific knowledge of past and present are all taken into account in developing a unified definition structure in the form of a universal definition matrix.

3675 Moravcsik, J. M. E.: **Singular terms, belief, and reality.** In: *Dialectica* 31 (1977) No. 3–4, p. 259–272. Analysis of the apparent disagreement between Kripke and Frege on the analysis of singular terms. It is shown that Frege's theory is basically an analysis of belief, while Kripke's theory is basically an analysis of metaphysical and causal contexts. Tentative arguments are presented for showing that these two types of contexts require different analysis, thus neither Kripke nor Frege can be said to have developed a theory handling all opaque contexts. (Author)

#### 14 Systemology and classification

3676 Semenova, N. N.: **On the systemic representation of scientific knowledge.** (In Russian). In: *Sistem. metod. i. sovrem. nauka* 4 (1976) p. 60–64, 11 refs.

3677 **Systems approach and modern science.** Collected Papers. (In Russian). Novosibirsk: Novosibirskij Gos. Universitet 1976. 163 p.

#### 15 Psychology and Epistemology of Classification

3678 Kuraev, V. I.: **The dialectic of the contentive and the formal in scientific knowledge.** (In Russian). Moskva: Nauka 1977. 160 p.

Study of the nature, role and functions of formal components in the construction and development of a scientific theory and their relationships with contentive devices. (Author, abbr.)

3679 Such, J.: **The role of theory in scientific cognition.** (In Polish). In: *Sg. naukozn.* 13 (1977) No.1, p. 7–23, 3 refs.

3680 Weinberger, O.: **Faktentranszendente Argumentation.** (In German). In: *Z. f. allg. Wissenschaftstheorie* 6 (1975) No.2, p. 235–251, 4 refs.

The author stresses the fact-transcendent import of knowledge. A non-ontological theory of possibility is given as well as an extensional explication of fact-transcendent and contrary-to-fact conditionals by defining the fact-transcending conditional as an extensional conditional within a field of possibilities over a domain of states of affairs. The theory of fact-transcendent conditionals is used to establish an explication of nomological and quasinomological sentences. Some methodological consequences of this conception are discussed. (Orig. abstr.)

#### 16 Development of Science and Classification

3681 Kocareva, L. M.: **The subject-matter of science: the social-philosophical aspect of the problem.** (In Russian). Moskva: Nauka 1977. 159 p.

3682 Sačkov, Ju. V.: **Science methodology: choice of direction. The role of the semantic aspect of knowledge in methodological research.** (In Russian). In: *Vopr. filosofii* (1977) No. 4, p. 62–74, 8 refs.

#### 18 Classification Research

See also 3942

3683 International Federation for Documentation (FID). Committee on Classification Research (FID/CR): **FID/CR Report No. 18, Pt. A and Pt. B.** Bangalore, India: DRTC 1978. 25 p. = FID Publ. 405

Contains as Part A and Part B the following articles: 3684 Neelameghan, A., Maitra, R.: **Non-hierarchical associative relationships among concepts: identification and typology.**– 3685 Maitra, R.: **Semi-automatic method of preparing thesaurus for a specific subject-field.**

3686 Dahlberg, W.: **Die Forschungstätigkeit der MERU – ihre Relevanz für die Klassifikationsforschung.** (The research activity of MERU – its relevance for classification research). (In German). In: *Intern. Classificat.* 5 (1978) No. 2, p. 103–106, 9 refs.

#### 19 History of Classification

3688 Reynolds, D. J.: **The introduction and use of forms of decimal classification in Russia, 1895–1921: UDC, DDC, and the Normal Plan.** In: *Libr. Quarterly* 47 (1977) No. 4, p. 431–450, 49 refs.

## 2 Structure & Construction of CS

#### 21 General Questions of Structure

3689 Akcjutina, O. P.: **Linguistic support for an external information/follow-up system.** (In Russian). In: *Inform.-sled. sistemy v ekonom.* Moskva: 1976. p. 77–91

Four types of information languages are involved in the early phases of a system development effort namely a classificatory language, a relational language for the follow-up entities, an operational language for the entities and a text document IR language.

3690 Čhenkeli, T. I.: **Formal representation of descriptor search languages.** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1977) No.6, p. 27–30, 9 refs.

A classification of descriptor languages is proposed which uses the criteria of lexical and grammatical constraints. A free-indexing descriptor language is regarded as a model (a relational system). A descriptor language with a preset vocabulary is represented by a numbered model, and a grammar-less language with a thesaurus, by a constructional model. It is shown that if a descriptor is an equivalence class rather than a tolerance class, then a grammar-less descriptor language whose lexical units are descriptors will be a homomorphous image of a grammar-less descriptor language whose lexical units are keywords representing the original language descriptors. (Author)

3691 Černyj, A. L.: **Information retrieval languages types, design principles, and compatibility.** In: *Naučno-techn. inform. Ser. 2* (1978) No.1, p.1–10, 26 refs.

A classification of information retrieval languages (IRL) is suggested, which is based on the features of application of classes (or their names) in document and request indexing during information searching (and hence on the logical design principles of these classes which are determined by those features). The basic approaches to the building of various IRL types are set forth, demonstrating that hierarchical, alphabetic subject, facet, and descriptor classifications are intended each for a separate way of using the respective classes. (Author, abbr.)

3692 Florja, L. I., Cukerman, E. M.: **Rubrikator as an IR language.** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1977) No.7, p. 7–8, 5 refs.

Semantic and syntactic features and retrieval capacity of the Rubrikator as a retrieval language are brought out. The vocabulary of the Rubrikator, its grammar (inter-heading links and relations) and syntax (heading order) are discussed. Evidence is cited to prove that the Rubrikator meets every requirement for an IR language. (Author, abbr.)

3693 Hlavac, T.: **A set theoretic representation of the search language.** (In Slovak). In: *Knižn. a ved. inform.* 9 (1977) No.2, p. 52–62, 5 refs.

An IR language is regarded as an instrument for representation

of a set of concepts through a set of descriptors. Representational ambiguity leads to synonymy and homonymy. (Author, abbr.)

3694 Kozačkov, L. S.: **Information language of logical categories.** (In Russian). In: *Naučno-techn. inform. Ser.2* (1977) No.9, p. 13-28, 3 tabs., 1 fig., 14 refs.

The information language of logical categories described in the paper serves for building and analysing models of complex systems. All the systems that are classified as complex are multi-level, which is primarily expressed in the fact that diverse forms of the movement of matter co-exist within a single system-physical, chemical, biological, social, mental, etc. (Author)

3695 Marshall, J. K. (Comp.): **On equal terms: a thesaurus for nonsexist indexing and cataloging.** New York: Neal-Schuman Pub. 1977. 152 p.

3696 McDonell, D. J.: **Classifications and their keys.** In: *Intern. Classificat.* 5 (1978) No.1, p.3-7, 6 refs.

According to David Wiggins a classification is acceptable if it is explanatory, and it will be explanatory if it establishes law-like relations between its members. Applying Hempel's formal criteria for classification of Foucault's example, it is shown that it does not meet Wiggins' requirements because this classification is without a key. However, examining some of Paracelsus' classifications it is shown that even though, at first glance they are as strange as Foucault's example, they are explanatory within their system of thought, because the specific system of thought provides the key to understanding them. (Author)

3697 Miljkovic, M.: **General structure of thesauri.** (In Serbocroate). In: *Informatika* 10 (1976) No. 3, p. 117-124, 7 refs.

After examining a great number of thesauri it has been found that in general a thesaurus consists of the following parts: an introduction, an alphabetical and a systematic list of terms, a permuted list and a hierarchical list.

3698 Vandijk, E.: **Towards a more familiar relational retrieval language.** In: *Inf. Syst.* 2 (1977) No. 4, p. 159-169.

The author asserts that existing retrieval languages are deficient because they require the use of: 1) complicated sentences with nested operations; 2) quantifiers; and 3) variables. A language called TAMALAN is then described that avoids the above deficiencies.

## 22 Elements and Special Structures of CS

3699 Bourelly, L., Chouraqui, E.: **La description des données dans le système documentaire SATIN 1.** (Data description in the documentation system SATIN 1) (In French). In: *Automatisme* 22 (1977) No.1-2, p.27-39, 7 refs.

Description and analysis of the data manipulated by the system SATIN 1 regarding the organised vocabulary (lexique) and the system of relationships (syntactical components and syntactical tables). With these fundamental data it is possible to generate the phrases SATIN 1.

3700 Peršikov, V. F.: **Facet-block principles of information language for an automated IR system.** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1977) No. 10, p. 15-20, 21 refs.

An information language designed for the USSR State Automated Scientific and Technical Information System must be compatible with the languages of the overlapping subject fields and possess a great semantic power flexibility. These requirements are met by a complex information language which has both a classificatory and a descriptor level. The facet-block principle of descriptor organisation provides a reciprocal exchange of descriptor blocks between different thesauri, and thus helps achieve information language compatibility. (Author)

## 23 Construction of CS

See also 3666, 3685, 3718, 3957

3701 Avramescu, A.: **Objective conception of vocabularies and thesauri.** (In Rumanian). In: *Probl. Inform. Document.* 11 (1977) No.4, p. 119-136, 9 refs.

Introduction of quantified methods based on statistical data and probability studies for the elaboration of thesauri and documentary languages.

3702 Bakov, A. A.; Buchaleva, E. I.; Zdorov, I. P.: **A method of semantic classification design.** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1977) No.10, p. 11-14, 3 figs., 11 refs.

The authors propose a formal method for constructing a classification which enables the file to be broken down into intersecting subject groups of documents. A testing of the algorithm is reported. (Author)

3703 Bollmann, P., Konrad, E.: **Automatic association methods in the construction of interlingual thesauri.** In: Batten, W. E. (Ed.): *EURIM II. Proceedings.* 23-25 March 1976, Amsterdam. London: Aslib 1977. p. 152-155, 12 refs.

Experimental work based on bilingual material. Methods are compared by using measures of distance between association graphs.

3704 Jaspers, M.: **Development of a coded-concept thesaurus.** (In French). In: *Cah. Doc.* 31 (1977) No. 2-3, p. 103-118

Each term of the thesaurus, developed at the University of Liège, Belgium, Bureau d'Organisation Technique (BOT), which represents a specific concept is assigned a computer generated numerical code. It has been experienced that such coded designations simplify thesaurus updating and reduces the error rate.

3705 Koji Abe: **On some problems of thesauri.** (In Japanese). In: *Libr. & Inform. Sci.* (1976) No.14, p. 71-94, 34 refs.

Reviewing the existing guidelines for thesaurus construction (ISO) as well as examples in existing thesauri in terms of definition, selection of descriptors, cross references between terms, special procedures for generic terms, and methods of compiling thesauri, the author discusses specific problems and suggests some solutions. (Author, abbr.)

3706 Louis-Gavet, G.: **Attempt at thesaurus formalisation for any information system: practical application.** (In French). In: *Automatisme* 22 (1977) No. 1-2, p. 18-26, 12 refs.

The thesaurus formalisation method presented relies on the statistics of character distribution in natural language phrases. Any thesaurus word can be compressed to four characters by using a character concentration function. This reduces thesaurus size, improves the organization of an information system and cuts down its running costs.

3707 Maršakova, I. V.: **Application of statistical distribution analysis to the construction of an information retrieval thesaurus.** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1977) No. 5, p. 1-15, 6 refs.

Describes the development of an information retrieval thesaurus by statistical distribution analysis techniques. The experiment was conducted manually using a sample collection of abstracts selected from the VINITI Abstract Journal on "Gas burners". The summary keyword frequency is 3,662. (Author)

3708 Vajsberg, A. M.: **On a method of building an information classification oriented to the interest of users.** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1977) No. 11-12, p. 40-42, 7 refs.

The demands of the algorithm used to build the classification for the problems with vast banks of original data are formulated. The algorithm is given as well as the problems on which control calculations have been carried out. (Author)

3709 Varfolomeeva, V. N.: **Developing a subject headings list for medical radiological technology.** (In Russian). In: *Naučno-techn. inform. Ser.1* (1977) No.5, p. 27-28

Describes the main steps in the development of a subject authority list for nuclear medical radiology and instruments. (Author)

## 24 Relationships

See also 3684, 3757

3710 Ciganik, M.: **Relational analysis of textual data.** (In Slovak). In: *Inform. Syst.* 6 (1977) No. 5, p. 439–451, 13 refs.

3711 Kaminski, W.: **A dictionary organisation method using the "syntactic tracing" technique.** (In Polish). In: *Pr. CO PAN* (1976) No.260, 14 p.

A method is provided for automatic syntactic association of thesaurus entries. Two kinds of entries are defined, namely operators and syntactic similarity coefficients. Specifications are given for a modified IR system based on the above entries.

(Author, abbr.)

3712 Kononov, B. P.: **The relation of distinction: the semantics of duality.** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1977) No. 9, p. 8–12, 4 refs.

Two binary relationships are introduced.

3713 Riško, A.: **Theoretical problems of relational linguistic models of information languages.** (In Slovak). In: *Knižn. a ved. inform.* 9 (1977) No. 3, p. 99–109, 5 refs.

3714 Steiger, R.: **Über erkenntnistheoretische Grundlagen der Syntax einer Informationssprache.** (On the epistemological foundations of the syntax of an IR language.) (In German). In: *Z. f. Phonetik, Sprachwiss. u. Komm. Forsch.* 30 (1977) No. 3, p. 297–299

It is proposed that the following structural elements of the objective facts should be included in an IR language: (1) the properties of a phenomenon, (2) the properties of a property, (3) the relations between two and more phenomena including the enumerations, (4) the properties of relationships of phenomena.

3715 Yu, C. T.; Raghavan, V. V.: **Single-pass method for determining the semantic relationships between terms.** In: *J. Amer. Soc. Inform. Sci.* 27 (1977) No. 6, p. 345–354, 13 tabl., 8 refs.

A fast single-pass method for the automatic determination of the semantic relationships between terms is presented. The computing time required for the method is small enough for it to be feasible in a practical environment. The experimental results obtained indicate that the method is effective in the assessment of the relationships between terms. The improvement achieved in retrieval performance over simple keyword matching is quite significant.

(Author)

## 25 Sequencing of Concepts/Classes

3716 Arapov, M. V.; Šrejder, Yu. A.: **Classifications and rank distributions.** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1977) No. 11–12, p. 15–21, 11 figs., 5 refs.

The problem of rank distributions is regarded as the problem of distribution based on the number of taxons in a certain "natural" classification. The so called co-decomposition is put into correspondence to the decomposition of the set of objects classified into. The minimum of symmetry principle is formulated for decomposition together with co-decomposition and the authors prove that Zipf's law follows from this principle.

(Author)

## 26 Notation, Codes

See also 3542, 3804

3717 Hoppe, D.: **Punktnummern – eine neue Art hierarchischer Nummern.** ("Period-numbers" – a new kind of hierarchical numbers.) (In German). In: *GMD-Spiegel* 7 (1977) No. 3, p. 49–53, 5 refs.

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

3718 Halfar, H.; Langendörfer, H.: **Automatische Erstellung und Pflege eines Thesaurus für ein Dokumentationssystem.** (Automatic construction and maintenance of a thesaurus for a documentation system.) (In German). In: *Sprache u. Datenverarb.* 1 (1977) No.1, p. 25–29, 1 fig., 2 tabs., 7 refs.

## 28 Compatibility & Concordances of CS

See also 3595–3598, 3605–3607, 3618–3619, 3639

3719 Beling, G.; Wersig, G.: **The new concept of an intermediary language system for information networks.** In: *Batten, W. E. (Ed.): EURIM 2, Proceedings, Amsterdam, 23–25 March 1976.* London: Aslib 1977. p. 117–121, 2 figs., 7 refs.

By accessing different data bases separately, a movement from one documentation language to the other is necessary. Therefore compatibility between existing documentation languages must be discovered or established. The nature of compatibility of documentation languages is considered and the concept of an intermediary system is introduced which must fulfill the following functions: orientation, model, standardization, derivation, selection, terminological control and mediation. Based on these considerations a concept for an intermediary system was designed: Federal Thesaurus-System in Germany with its subsystems. (Orig. abstr.)

3720 Blanken, R. R., Stern, B. T.: **Structuring the Excerpta Medica thesaurus via a polyhierarchical decimal classification.** In: *Batten, W. E. (Ed.): EURIM II. 23–25 March 1976.* Amsterdam. London: Aslib 1977. p. 148–150

Considers the problems of linking frequently used MALIMET terms with particular subcategories in the Excerpta Medica Classification. (MALIMET = Excerpta Medica Master List of Medical Indexing Terms)

3721 Gaaze-Rapoport, M. G.: **Integrated system of information languages: day-dreams and real tasks.** In: *Naučno-techn. inform. Ser. 2* (1978) No.1, p. 32–34

Attempts at ensuring compatibility of diverse information languages as well as at making a choice of a unique language that would serve all purposes are shown to be doomed to failure. A few tasks are stated which are to be fulfilled if the set of diverse information languages is to function effectively within the framework of the integrated statewide information network.

(Author)

3722 Giljarevskij, R. S.: **On the compatibility of various types of information retrieval language (IRL).** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1978) No. 1, p. 11–13, 9 refs.

Principal differences are considered between precoordinated and postcoordinated IRL's as exemplified by alphabetical subject classifications and descriptor languages. An approach is discussed which treats the compatibility of various types of IRL as a possibility of rough correspondence between their respective classes and subclasses, based on subject content, as well as their joint application to identify various aspects in information requirements and to optimize the search strategies. The author criticizes attempts to regard the complex of linguistic means which supports an IRS as a sophisticated information language consisting of several related IRL's of various types.

(Author)

3723 Gluškov, V. M.; Skorochođ'ko, E. F.; Stognij, A. A.: **Evaluation of compatibility of documentary IRL.** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1978) No. 1, p. 14–19, 2 figs., 7 refs.

The authors propose a distinction between semantic and structural compatibility of documentary information languages. The former is conceived as the capacity of a language for describing objects and situations belonging to one and the same set, while the latter is conceived as the commonness of the means of expression of meaning. The components of semantic compatibility

are lexical, paradigmatic, and syntagmatic compatibility, which reflect, respectively, the capacity of the languages for substituting one another in naming objects, immanent relations, and situational relations. The components of structural compatibility are morphological and syntactic compatibility, which characterise the similarity of languages as regards the structure of words, i.e. names of objects, and of "phrases", i.e. of more or less explicit descriptions of objects and situations. (Author)

3724 Horsnell, V.: **Evaluation and implementation of an intermediate lexicon.** In: EURIM II. Proceedings. 23-25 March 1976, Amsterdam. London: Aslib 1977. p. 110-112, 3 refs.

3725 Kolčinskij, M. L.: **A unified system of information languages for documentary retrieval in a system of automated information services.** (In Russian). In: Naučno-techn. inform. Ser. 2 (1978) No.1, p. 24-31, 21 refs.

The goal of the unified system of information languages is to ensure compatibility of the data bases and an efficient distribution of documents and requests in a system of automated information services. Proposals are advanced on creating a set of information languages for the automated information service network, specifically, the principles for identification of the subject fields which constitute the "vocabulary units" of the system's subject headings list at the upper hierarchical level. (Author, abbr.)

3726 Nakamura, Y.: **Terms and classification systems: an introduction to TOCS principle.** (In English). In: Libr. & Inform. Sci, Japan (1976) No.14, p.95-106, 8 refs.

Advocating of TOCS (Term-Oriented Classification System) which aims at making classification systems more easily accessible through terms and words by reforming the style and structure of the schedules. Example for TOCS applied to UDC.

3727 Šrejder, Ju. A.: **Interaction of classified and object languages.** In: Naučno-techn. inform. Ser. 2 (1978) No. 1, p.20-23

The opposition of classified and object languages is discussed as well as the possibility of their combined use. Possible nature of principles restrictions to the use of either languages and the role of general theoretical interdictions for informatics development is discussed. (Author)

3728 Vilenskaja, S. K.: **Compatibility of information retrieval languages (intermediary language and communication language).** (In Russian). In: Naučno-techn. inform. Ser. 2 (1977) No. 5, p. 16-21, 26 refs.

## 29 Evaluation of CS

3729 Bielicka, L.: **Criteria of documentary language efficiency.** (In Polish). In: Aktual. Prob. Inform. Dok.22 (1977) No. 5, p. 16-20, 11 refs.

Evaluation of exhaustivity, pertinence and diverse factors which contribute to these on the level of the documentation language, in indexing and in retrieval.

3730 Carpenter, A. M., Jones, M., Oppenheim, Ch.: **Retrieval tests on five classification schemes.** Studies on Patent Classification Systems II (1). In: Intern. Classificat. 5 (1978) No. 2, p. 73-80, 21 refs.

The five schemes tested in the fields of inorganic chemistry and biochemistry were the following: the UK Patent Classification, the US Patent Classification, the International Patent Classification, the Derwent Manual Code and the Derwent Punch Code. Description of the methodology followed and presentation of the results from the 15 and 22 questions set. Among others the results show that recall was correlated positively with precision and that the Derwent codes gave substantially higher recall than the classification schemes. Details of the findings are discussed including also the role of misprints in patent office publications. (I.C.)

3731 Henzler, R. G.: **Free or controlled vocabularies.** Some statistical user-oriented evaluations of biomedical

information systems. In: Intern. Classificat. 5 (1978) No. 1, p. 21-26, 15 refs.

Based on CANCERNET (a literature information system, formerly called SABIR-C) a quantitative comparison of free text and controlled vocabulary used in indexing and retrieval is given. The advantages of free text search are compared with the convenience of searches using controlled vocabulary. An indexing consistency text of 683 double indexed articles is commented on. The results are evaluated with regard to loss of information from the author to the user. They show the necessity of both free text and controlled vocabulary in an optimum combination. (Author)

3732 Roszkowska, E., Martin, U., Lesiak, M.: **Analyse der Leistungsfähigkeit eines Codierungssystems.** (Analysis of the efficiency of a coding system.) (In German). In: Informatik 23 (1976) No. 5, p. 24-31

Description of the coding system of the literature information service Signa Excerpta which was developed by the Institute for the Pharmaceutical Industry in Warsaw and is now run jointly with the Information Centre at the drug-manufacturing plant in Dresden and the Chemical-Pharmaceutical Research Institute in Sofia.

3733 Williams, M. E.: **Data element statistics for the MARC II data base.** In: J. Libr. Automat. 9 (1976) No. 2, p. 89-100, 3 refs.

The Information Retrieval Research Lab. of the University of Illinois keeps track of the statistics of its processed data. These concern the occurrence and length of the elements as well as their distribution according to LC and DDC. The statistics are used for profile elaboration of users and for retrieval strategies.

## 3 Classing and Indexing (Methodology)

### 31 Theory of Classing and Indexing

See also 3465, 3540-3653

3734 Cooper, W. S., Maron, M. E.: **Foundations of probabilistic and utility-theoretic indexing.** In: J. Assoc. Comput. Mach. 25 (1978) No. 1, p. 67-80, 14 refs.

Derivation of a unified indexing theory on the basis of decision making rules using probabilistic criteria or utility theory.

3735 Cooper, W. S.: **Indexing documents by Gedanken experimentation.** In: J. Amer. Soc. Inform. Sci. 29 (1978) No. 3, p. 107-119, 2 figs., 11 refs.

Since indexing is a decision-making process, decision theory and utility theory have been proposed as a possible theoretical framework within which to formulate decision rules for indexing. The decision rules may be interpreted operationally as guides to the thought processes appropriate to the making of sound indexing decisions. One such thought process involves "gedanken experimentation", in which the indexer is led to an indexing decision by performing suitable thought experiments. This approach to indexing, in addition to providing a theoretical basis for what the indexer does, lends itself to various training schemes for the education of indexers, to the provision of graphic aids to indexing, and to the evaluation of indexing performance. There are also ramifications for automatic indexing. (Author, abbr.)

3736 Foskett, A. C.: **E. J. Coates, the British Technology Index and the theory of subject headings: the man who loved cat springing.** In: Rayward, W. B. (Ed.): The variety of librarianship: essays in honour of John Wallace Metcalfe. Sydney: Libr. Assoc. of Australia 1976. p. 77-90

Once the idea is accepted that satisfactory indexing requires a complete statement of the subject of a document as a basis, the problem of how to formulate such a statement and how to treat it must be tackled. Shows Coates' solution of this problem in the chain indexing procedure to the subject indexing of BTI.

3737 Foskett, A. C.: **Cutter of Austin.** In: Cataloguing Australia 2 (1976) No. 3-4, p. 12-18

Reviews the development of alphabetical subject indexing from Cutter's work to Derek Austin's work on PRECIS.

3738 Hartstock, E.: **Zur Problematik der Erschließungsintensität.** (On the problems of indexing intensity) (In German). In: *Archivmitt.* 27 (1977) No. 3, p. 101–103, 7 refs.

It is shown that a subject access to archive materials is facilitated equally by using a controlled vocabulary, a thesaurus, as against a free one.

3739 Jansen, R.: **Intentionen der Indexierungsnorm DIN 31623 und Überlegungen zum Verhältnis gleichordnende/syntaktische Indexierung.** (Intentions of the indexing standard DIN 31623 and some reflections about the relationship of coordinate indexing to syntactical indexing.) (In German). In: *Nachr. Dok.* 29 (1978) No. 1, p. 19–23

The sub-committee on indexing rules of the Technical Committee for Library Science and Documentation (Normenausschuß Bibliotheks- u. Dokumentationswesen) will soon publish the draft standard "DIN 31623. Indexieren zur inhaltlichen Erschließung von Dokumenten". (DIN 31623. Indexing for describing the contents of documents.) The draft will appear in two parts. Part 1 deals with the fundamentals and concepts of indexing. As a first indexing method part 2 contains the coordinate indexing method with the aid of descriptors. That gives the chance to the following up of other indexing methods for example syntactic indexing in the future. Contents and aims of the draft are pointed out. With regard to the future treatment of syntactic indexing the relations of coordinate to syntactic indexing are discussed.

(Author)

3740 Jansen, R.: **Überlegungen zum Verhältnis gleichordnende/syntaktische Indexierung.** (Considerations concerning coordinate versus syntactical indexing.) (In German). In: *DIN-Mitt.* 57 (1978) No. 6, p. 323–327, 2 fig., 6 refs.

3741 Oim, H.: **Messages and memory structures in the pragmatic descriptions of sentences.** In: *Statistica. Methods in Linguistics* (1977) No. 2, p. 4–43, 12 refs.

3742 Schubert, P.: **Probleme der Sacherschließung von Informationsquellen aus der Sicht einer Fachbibliothek.** (Problems of subject indexing of information sources as seen from a special library.) (In German). In: *Zbl.f.Bibl.wes.* 91 (1977) No. 7, p. 319–322, 15 refs.

A double way of indexing is suggested by using a classification system as well as a thesaurus where both tools are meant to supplement each other. The significance of methodological guidelines for this is emphasized.

3743 Swift, D. F., Winn, V. A., Bramer, D. A.: **Modality in indexing and searching.** In: *J. Informatics* 1 (1977) No. 3, p. 91–95

## 32 Subject Analysis

3744 Berul, F. B.: **Analytico-synthetic treatment of research and development documentation.** (In Russian). In: *Naučno-techn. inform. Ser. 1* (1977) No. 8, p. 16–17, 3 refs.

Proposal to class documents according to their degree of information.

3745 Bross, I. D. J.: **What is a valid scientific argument? A linguistic approach to an answer.** In: *Meth. Inform. Med.* 16 (1977) No. 2, p. 75–80, 13 refs.

In order to overcome intuitive evaluation or subjective indexing it is proposed to use an automatic analysis of a scientific argument by examining the mathematical structures of language. By this an argument may be subdivided into subarguments and questions of facts may be separated from questions of language.

3746 Chaumier, J.: **Le traitement linguistique de l'information documentaire. L'analyse documentaire.** (In

French). Paris: *Entreprise Moderne d'Édition*, 1977. 126 p.

Critical review in: *Documentaliste* 15 (1978) No. 1, p. 41, by M. Wolff-Terroine.

3747 Ginouves, R.: **La constitution des données en archéologie classique: recherches et expériences en vue de la préparation de bases de données.** (Data constitution in classical archeology: research and experiences in the preparation of data bases.) (In French). Paris: CNRS 1977. 75 p. = DGRST-7470336

The system SATINI was mainly used. The research was concerned with the determination of the data, its linguistic representation in a most formalized way and experimenting with the language in an automatic documentation system.

3748 Hutchins, W. J.: **The concept of 'aboutness' in subject indexing.** In: *Aslib Proc.* 30 (1978) No. 5, p. 172–181, 3 figs., 12 refs.

The common view of the 'aboutness' of documents is that the index entries (or classifications) assigned to documents represent or indicate in some way the total contents of documents; indexing and classifying are seen as process involving the 'summarization' of the texts of documents. In this paper an alternative concept of aboutness is proposed based on an analysis of the linguistic organization of texts, which is felt to be more appropriate in many indexing environments (particularly in non-specialized libraries and information services) and which has implications for the evaluation of the effectiveness of indexing systems.

(Author)

3749 Kobuch, A.: **Erfahrungen bei der Deskriptorenerschließung des Bestandes "Bezirkstag/Rat des Bezirkes Dresden" an Hand des "Thesaurus für die örtlichen Staatsorgane der DDR".** (Experiences in descriptor indexing of the documents of the Council of Dresden with the "Thesaurus for the local state organs of the GDR"). (In German). In: *Archivmitt.* 27 (1977) No. 3, p. 103–105, 18 refs.

3750 Lynch, M. F.: **Technical report on the study "Development of a combined WLN/CTR multilevel approach to the algorithmical analysis of chemical reactions in view of their automatic indexing"** initiated during the British Library visiting fellowship of Dr. G. Vleduts. December 1975–September 1976. Sheffield: Postgraduate School of Librarianship and Information Science. Sheffield University. Sept. 1976. 40 p., 24 appendices = BL R&D Report 5399.

3751 Raghavan, K. S., Hemalata Iyer: **Structuring of compound and complex subjects in social sciences: a users' survey.** In: *Intern. Classificat.* 5 (1978) No. 1, p. 8–14, 2 refs.

Presents an analysis of the detailed survey on facet-analysed subject strings in the field of Social Sciences. Subject-strings of four types were administered as a stratified sample of responses to identify the gaps in semantic connotation of terms. This survey has helped to identify the possible aberrations in the semantic connotations due to the presence or absence of terms. It was found that use of prepositions, conjunctions and other role indicating terms give semantic clarity. The syntax of speciator terms may have to be varied according to the respondent groups. It was found that if the number of component terms in a subject string increases beyond a certain limit it gives rise to problems in interpretation of ideas. This indicates a breakeven point for formulating subject headings.

(Authors)

3752 Swift, D. F., Winn, V., Bramer, D.: **'Aboutness' as a strategy for retrieval in the social sciences.** In: *Aslib Proc.* 30 (1978) No. 5, p. 182–187, 3 refs.

3753 Wisniewski, P.: **Document description structuring with descriptors in automated information retrieval systems.** (In Polish). In: *Aktual. Probl. Inform. Dok.* 22 (1977) No. 6, p. 14–18, 7 refs.

Proposal to structure parts of the texts before indexing.

### 33 Classing and Indexing Techniques

3754 Gordon, B. L.: **Medical record summary for computer operation.** In: *Meth. Inform. Med.* 16 (1977) No. 1, p. 24-27, 11 refs.

For the automatic treatment of medical records a method is proposed which uses terms to cover all the aspects of a record and the codes. Examples of this language and its use are given.

3755 Inauen, J.: **Manuelle Indexierung.** (Analyse der Dokumente, Thesauri, Indexierung, Abstracts). (In German). In: *Nachr., Nouv., Not.* 53 (1977) No. 6, p. 292-308

3756 Maljceva, G. F.: **The procedure and practice of multidimensional statistical indexing in a stochastic patent information system.** (In Russian). Leningrad: Gos. Kom. po Ispoljz. Atom. Energii SSSR, NII Elektrofiz. Apparaty 1977. 44 p. (P-0332)

Formulates main requirements for the procedure and practice of multidimensional statistical indexing of US Patents for accelerator engineering and thermonuclear installations in a stochastic automated patent retrieval system. Outlines the indexing tools used. Presents a separate data base development procedure. Describes at length a multi-step document and query indexing procedure. The indexing of several types of query relies on a stochastic relevance estimate. (Author)

3757 Supper, R.: **Neuere Methoden der intellektuellen Indexierung.** (Recent methods of intellectual indexing.) (In German). München/New York/London/Paris: Verlag Dokumentation Saur KG 1978. 255 p. = Beitr.z.Inform. u. Dok. wiss., Folge 11

Main concern is with British systems, especially with PRECIS. Description of chain-indexing, of relationship indications and of some other systems, such as Relational indexing (Farradane), British Technology Index (Coates), Articulated Subject Index (Lynch).

### 34 Automatic Classing and Indexing

See also 3750, 3754, 3875

3758 **An experimental automatic text indexing system.** (In Russian). Moskva: VINITI 1977. 92 p. = *Vopr. Inform. teorii i praktiki* No. 3 (30).

Collection of papers dealing with automatic indexing.

3759 Barnes, C. I., Costantini, L., Perschke, S.: **Automatic indexing using the SLC-II system.** In: *Inform. Proc. & Manag.* 14 (1978) No. 2, p. 107-119, 10 fgs., 6 refs.

This paper presents an outline of the concepts and facilities of SLC-II, a basic support for R&D in automatic documentation and language translation, and gives a detailed description of its use in automatic indexing. The design and running of a full-scale pilot project on automatic indexing of INIS Atomindex material, done in cooperation with the IAEA and Inspec, is described, as well as a parallel experiment in the effectiveness of "thesaurus enrichment" by semiautomatic means.

3760 Comer, D., Sethi, R.: **The complexity of trie index construction.** In: *J. Assoc. Comp. Mach.* 24 (1977) No. 3, p. 428-440, 15 refs.

"Trie" structures are a convenient way of indexing files in which a key consists of a number of attributes. Records correspond to leaves in the "trie". Retrieval proceeds by following a path from the root to a leaf, the choice of edges being determined by attribute values. The size of a trie for a file depends on the order in which attributes are tested. It is shown that determining minimal size tries is an NP-complete problem for several variants of tries and that, for tries in which leaf chains are deleted, determining the trie for which average access time is minimal is also an NP-complete problem. These results hold even for files in which attribute values are chosen from a binary or ternary alphabet. (Author)

3761 Dunham, G. S., Pacak, M. G., Pratt, A. W.: **Automatic indexing of pathology data.** In: *J. Amer. Soc. In-*

*form. Sci.* 29 (1978) No. 2, p. 81-90, 4 fgs, 1 tab., 40 refs.

A procedure for automated indexing of pathology diagnostic reports at the National Institutes of Health is described. Diagnostic statements in the medical English are encoded by computer into the Systematized Nomenclature of Pathology (SNOP). SNOP is a structured indexing language constructed by pathologists for manual indexing. It is of interest that effective automatic encoding can be based upon an existing vocabulary and code designed for manual methods. Morpho-syntactic analysis, a simple syntax analysis, matching of dictionary entries consisting of several words, and synonym substitutions are techniques utilized.

(Author)

3762 Frei, H.-P.: **Automatische Klassifikationsmethoden.** (In German). In: *Nachr., Nouv., Not.* 53 (1977) No. 6, p. 308-314, 5 refs.

3763 Paščenko, N. A.: **Design principles for an automatic text indexing system.** (In Russian). In: *Eksp. sist. avtomat. indeksir. tekstov.* Moskva 1977. p. 3-10

Description of the ESAIT (Experimental System for Automatic Indexing of Texts) which is designed to identify input statement words, the semantic contextual relationships between input message words, to build a semantic presentation or semantic word record of the input text in the information language used and to transform the query semantic record into a set of such records which are related to the original one.

3764 Knorina, L. V.: **Morphological analysis in automatic indexing.** (In Russian). In: *Eksp. sist. avtomat. indeksir. tekstov.* Moskva 1977. p. 34-41

Description of the morphological analysis algorithm, which precedes syntactic analysis and which is part of a system for automatic indexing of search summary texts.

3765 Kostomarova, N. N.: **Parsing in ESAIT.** (In Russian). In: *Eksp. sist. avtomat. indeksir. tekstov.* Moskva 1977. p. 42-49

Description of the syntactical analysis in the Experimental System for Automatic Indexing of Texts (ESAIT).

3766 Leontjeva, N. N., Višnjakova, S. M.: **Experience in automatic indexing with sense compression.** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1977) No. 7, p. 24-30, 11 refs.

In the automatic indexing system described, all the vocabulary words are represented by sets of prime concepts which are in turn referred to prime categories (action, subject, characteristic, etc.). Automatic compression of original document descriptions is made possible by the explicitness of semantic similarities and differences in description elements and by the availability of specified sequences of categories (action + subject, characteristic + subject, etc.) (Author)

3767 Marius, M.: **Automatic indexing.** (In Rumanian). In: *Stud. si cerc. doc.* 18 (1976) No. 3-4, p. 325-380, 17 refs.

Description of several fully automated indexing systems such as SMART, DPS, TEXT PAC, MISTRAL, GOLEM.

3768 Naumann, P.: **Zur Implementierung eines Verfahrens zum automatischen Indexieren von Referaten im Rahmen des Informationsrecherchesystems AIDOS.** (On the implementation of a procedure for automatic indexing of abstracts in the AIDOS information retrieval system.) (In German). In: *Informatik* 25 (1978) No. 2, p. 32-34

3769 Panyr, J.: **STEINADLER - ein Verfahren zur automatischen Deskribierung und zur automatischen thematischen Dokumentenklassifikation.** (STEINADLER - a system of automatic description and classification of documents.) (In German). In: *Nachr. Dokum.* 29 (1978) No. 4/5, p. 184-191, 4 tabs., 12 fgs., 3 refs.

STEINADLER is a system with the twofold purpose of finding text key words automatically and the automatic classification of any number of texts. The document classification takes place on varying levels. (Author, abbr.)

## 35 Automatic Ordering

3770 Arms, W. Y., Arms, C. R.: Cluster analysis used on social science journal citations. In: *J. Doc.* 34 (1978) No. 1, p. 1–11, 5 tabs., 3 refs.

The overall conclusion is that cluster analysis is an unsuitable approach to the design of secondary services in the social sciences, though it may have some value in automatic retrieval systems. Two problems are the vast amounts of data needed and the difficulty of representing results comprehensibly, particularly with overlapping clusters. (Author, abbr.)

3771 Bakov, A. A., Buchaleva, E. I., Zdorov, I. P.: Experimental study of an algorithm of semantic classification. (In Russian). In: *Naučno-techn. inform. Ser. 2* (1978) No. 2, p. 17–19, 2 figs., 8 refs.

This paper discusses the constructio of a classification for an experimental file by forming intersecting taxons around central documents; these are identified according to certain formal rules. The experiment has shown that the method can be efficiently applied for analysis of the dynamics of a subject field on a file of documents. Special attention is given to the identification of new documents.

3772 Croft, W. B.: Clustering large files of documents using the single-link-method. In: *J. Amer. Soc. Inform. Sci.* 28 (1977) No. 6, p. 341–344, 3 tabs., 9 refs.

A method for clustering large files of documents using a clustering algorithm which takes  $O(n^2)$  operations (single-link) is proposed. This method is tested on a file of 11,613 documents derived from an operational system. One property of the generated cluster hierarchy (hierarchy connection percentage) is examined and it indicates that the hierarchy is similar to those from other test collections. A comparison of clustering times with other methods shows that large files can be clustered by single-link in a time at least comparable to various heuristic algorithms which theoretically require fewer operations. (Author)

3773 Flory, S., Gunther, J., Kouloumdjian, J.: Data base reorganization by clustering methods. In: *Inform. Syst.* 3 (1978) No. 1, p. 59–62, 10 refs.

Paper is concerned with the problem of data reallocation on a moving-head-disk, in order to minimize the average access time. The reorganization is a two stage process: at first the file is partitioned by a clustering algorithm, then the clusters are allocated to cylinders. By the application of this method on a 11 000-record file, the access mean time was reduced by a factor 2. (Authors, abbr.)

3774 Gerson, G. M.: Cliqueing – A technique for producing maximally connected clusters. In: *J. Amer. Soc. Inform. Sci.* 29 (1978) No. 3, p. 125–129, 2 tabs., 11 refs.

A technique is demonstrated whereby a large data base may be automatically classified into maximally connected clusters. These are called cliques. The data base is initially clustered by MacQueen's "k-means" algorithm. These clusters are then subjected to an enrichment process whereby through a transposition of the basic properties matrix, two-directional connections may be shown. These are employed to the fullest extent with all connections being completed and references appearing in all cliques with which common or related references appear. The data base employed is a selection of US patents. (Author, abbr.)

3775 Kar, G., White, L. J.: A distance measure for automatic document classification by sequential analysis. In: *Inform. Proc. & Manag.* 14 (1978) No. 2, p. 57–69, 1 fig., 4 tabs., 13 refs.

This research has investigated the feasibility of using a distance measure, called the Bayesian distance, for automatic sequential document classification. It has been shown that by observing the variation of this distance measure as keywords are extracted sequentially from a document, the occurrence of noisy keywords may be detected. This property of the distance measure has been utilized to design a sequential classification algorithm which works in two phases. (Author, abbr.)

3776 Jakovlev, O. E.: File organisation for the retrieval

of economic indicators in a descriptor information retrieval system. (In Russian). In: *Naučno-techn. inform. Ser. 2* (1977) No. 2, p. 30–32, 2 refs.

3777 Liou, J. H., Yao, S. B.: Multi-dimensional clustering for data base organizations. In: *Inform. Systems* 2 (1977) No. 4, p. 187–198, 10 refs.

3778 Time-factor classifications and relegation of older books. In: *BL Res. & Devel. Newsl.* (1978) No. 13, p. 5–6 After preliminary work by Mr. W. R. Moss (*R & D Newsletter* (1977) No. 11, p. 11), the British Library has offered a grant of up to f. 25,000 over three years to Teeside Polytechnic for a study of time-factor classification and the relegation of older books. The main feature of the scheme lies in envisaging a permanent separation by date between "new" and "old", the "new" in the main library and the "old" in store, with provision for regular and systematic transfer or relegation from "new" to "old", but without any need to amend catalogue records at the time of transfer. The study will cover the determination of a time-factor figure for the whole collection as well for the main library classes. These classes will consist of easily identifiable sequences or bands of Dewey numbers corresponding, as far as possible, with the departmental divisions of the Polytechnic. Decisions will then be taken on relegation periods for various classes and material will be relegated to store.

## 36 Coding

See also 3754

3739 Pjottuch-Peleckij, V. N. et al.: Structure identification system and chemical fragments. (In Russian). In: *Izvest. sibir. Otdel. Akad. Nauk SSSR, chim. Nauk* (1976) No. 5, p. 134–140, 7 refs.

The system is based on a topological coding and uses the computer.

## 37 Reclassification

3781 Brown, D.: Reclassification in a polytechnic library. A feasibility study. London: The Polytechnic of North London. School of Librarianship 1975. 107 p. Intensive study of all the parameters which needed to be considered for the decision making process concerning the choice of a common classification system for a number of amalgamated libraries.

3782 Compton, A., Finney, J. M. T.: Reclassification of a small hospital library collection. In: *Bull. Med. Libr. Assoc.* 65 (1977) No. 3, p. 379–381

3783 Galneder, M.: The recataloguing/reclassification project at the Map and Air Photo Library, University of Wisconsin, Madison. In: *Geog. Map Div. Bull.* (1977) No. 108, p. 15–25

Description of the process of changing from an outgrown Office of Strategic Services system to one employing a modified version of Library of Congress, with headings updated to include are, subject, date, scale.

3784 Tong, J. G., Byrd, G. D.: Reclassification in a small decentralized medical library. In: *Bull. Med. Libr. Assoc.* 65 (1977) No. 3, p. 354–359, 2 tabs., 1 fig., 9 refs.

3785 Zoller, W.: Warum wir uns für die SWAG entschieden haben. (Why we chose SWAG) (In German). In: *Schulbibliothek Aktuell* (1977) No. 1, p. 36–40

Reasons are given why for the reorganization of a Stuttgart gymnasium library the Systematik für die wissenschaftliche Abteilung der Gymnasialbibliothek (SWAG) constructed by the Arbeitsstelle für das Bibliothekswesen was adopted.

3786 Žarkova, E.: We transfer to a new classification system. (In Russian). In: *Bibliotekar* (1977) No. 7, p. 71–73

Description of the switch-over from the Library Classification Tables for Provincial Libraries to the BBK at the Buryat ASSR M. Gor'ky Republican Library. Problems remaining include: inadequate supplies of BBK schedules, lack of instruction on its use, introducing courses on BBK into library schools.

### 38 Index Generation Programming

3787 Reed, A.: **CLOC: a collocation package.** In: Assoc. Lit. Linguist. Comput. Bull. 5 (1977) No. 2, p. 168-173

Description of a software package for text processing which yields word lists, KWIC/KWOC concordances and collocations (passages of text containing specified words). The compiler is written in ALGOL 68 R, tested on an IC 1900 computer.

3788 Vladimirov, L. A.: **The ESAIT software.** (In Russian). In: Eksper.sist. avtomat. indeksir. tekstov. Moskva 1977, p. 21-33

Presentation of the principal programs forming part of the software in FORTRAN for the Experimental System for Automatic Indexing of Texts (ESAIT).

### 39 Evaluation of Indexing

3789 Carpenter, A. M., Jones, M., Oppenheim, Ch.: **Consistency of use of the International Patent Classification.** - Studies on Patent Classification Systems I. In: Intern. Classificat. 5 (1978) No. 1, p. 30-32, 5 refs.

Report on the result of a small-scale test of the consistency of use of IPC for the same invention by two sets of examiners in the USA and UK in two different subject areas: inorganic chemistry and biochemistry. Reasons for inconsistency are given and conclusions for the use of Derwent's and INPADOC's services are drawn. I.C.

3790 Mishima, Y., Oi, S., Ebinuma, Y.: **Influence of the attribution of keywords on the treatment of secondary information and instructions on their selection and their description.** (In Japanese). In: J. Atom. Energy Soc. Japan 18 (1976) No. 12, p. 760-766, 3 refs.

3791 Vematsu, T.: **Efficiency of keywords assigned by authors in the INIS indexing system.** (In Japanese). In: Dokument. Kenkyu 27 (1977) No. 2, p. 65-70

The results of a test show that the author-assigned keywords show efficiency indeed.

## 4 On Universal Systems

### 41 On Universal CS in General

See also 3463

3792 Curwen, A. G.: **Revision of classification schemes: policies and practices.** In: J. Librarianship 10 (1978) No. 1, p. 19-38, 12 refs.

The problems of developing subjects and changing terminology which confront all revisers of indexing tools are surveyed briefly, and the policies and practices adopted by the Library of Congress, Dewey Decimal and Universal Decimal classifications are reviewed in turn. The revision of the Bliss Bibliographic Classification is then considered in the light of the foregoing discussion of general problems and specific solutions. Some worked examples using sections of the revised Bliss scheme are appended. (Author)

3793 Udalova, V. K.: **Reflection of the national aspect of social life in foreign library and bibliographic classifications** (In Russian). In: Sovrem. probl. bibliotekoved. i bibliografii, Moskva 1976, p. 138-151, 20 refs. Investigation into the reflection of a national aspect in the DDC, UDC, LCC and LBC (BBK).

### 42 On the Universal Decimal Classification, UDC

See also 3530, 3532, 3537-3540, 3543, 3544-3547, 3628, 3688, 3919

3794 Arnold, W.: **Dezimalklassifikation im Bereich Sport. Spiele. Leibesübungen. Körperübungen - DK 796/799.** In: DK-Mitt. 19 (1975) No. 1 p. 1-2 (ersch. Febr. 78) (In German)

Die kritische Revision des DK-Systems DK 796/799 vollzog sich im wesentlichen in zwei Etappen: - Revision 1960-1965; P-Note 823 zu DK 796/799 Ext. & Corr. 5, 6, S. 141-146, FID, Den Haag, 1965. - Revision 1966-1975 P-Note 73-31 und PC-Note 75-10 zu DK 796/799. Ext. & Corr. 9, 1, S. 124-132, FID, Den Haag, 1975. Diese Revision wird in dem in Vorbereitung befindlichen Band 7/9 der Zweiten Deutschen Gesamtausgabe der DK berücksichtigt.

3795 Fill, K.: **Dezimalklassifikation und Thesauri.** In: DK-Mitt. 19 (1975) No. 2-3, p. 5-10 (ersch. Mai 78) (In German)

3796 Gabor, O.: **Computer-assisted compilation of subject-indexes to the UDC.** (In Hungarian). In: Tudomanyos es musz. tajek. 24 (1977) No. 7/8, p. 271-294, 12 refs.

Discussion of the special requirements demanded by the kind of class description of UDC classes and their subject access through an index. Study of the four solutions to this problem by the ZMD of the FRG, by Y. Nakamura, Japan, by de Andrade Oliveira, Brasil and by Gabor. Principles, motivation, construction and activities through man and machine as well as products and individual differences of these procedures are described.

3797 Kühn, U.: **Die DK in deutschen Zeitschriften.** (The UDC in German periodicals) (In German). In: DK-Mitt. 18 (1974) No. 6, p. 27-30, 3 refs.

This survey of 1974 shows that the tendency to add UDC numbers to journal articles is diminishing, both in East and West Germany. Only about 170 East and West German periodical titles fall within UDC main classes.

3798 Sorokin, A. M.: **The Universal Decimal Classification: design philosophy and methods of improvement.** (In Russian). Moskva: Isdatel'stvo standartov 1976. 164p. Discussion of the UDC design criteria and the requirements for the individual parts of its draft revisions. The book is intended as a procedure manual for UDC experts and will be found useful by anyone concerned with IR language improvement. (Author, abbr.)

### 43 On the Dewey Decimal Classification, DDC

See also 3530, 3534, 3541, 3688, 3733

3799 Dhyani, P.: **DDC 18: critical appraisal of some auxiliary tables.** In: Intern. Libr. Rev. 9 (1977) No. 2, p. 175-181, 5 refs.

3800 Gangadhara Rao, P.: **Homonyms in Dewey Decimal Classification Edition 18: Case Studies.** In: Libr.Sci. SlantDoc. 14 (1977) No. 3-4, p. 120-123

Presents case studies of incidence of homonyms in DDC numbers requiring the use of area notations and historical divisions. Suggests the use of "00" as the indicator digit for time isolate instead "0" to resolve the homonym. (Author)

3801 Guha, B.: **The first edition and all the eighteen editions. A review.** In: Ann. Libr. Sci. Document. 23 (1976) No. 4, p. 275-280

Review of the 18 editions of the Dewey Decimal Classification.

3802 Guha, B.: **Dewey Decimal Classification in Hindi.** In: Ann. Libr. Sci. Document. 23 (1976) No. 4, p. 281-284

3803 Kobayashi, Y.: **"Areas" table of Dewey 18 as compared with Nippon decimal classification ed. 7.** (In Japanese). In: Libr. Inform. Sci. Japan (1976) No. 14, p. 55-70, 5 refs.

3804 Kumar, S.: **Looking back to Dewey's notation after hundred years.** In: *Ann. Libr. Sci. Document.* 23 (1976) No. 4, p. 262-269

3805 Mittal, R. L.: **Dewey Decimal Classification: some aspects (18th edition).** In: *Indian Libr. Movement* 4 (1977) No. 1, p. 28-32

Discussion of the changes introduced into the 18th ed.

3806 Prescott, D. F.: **The Dewey Decimal Classification and Anglo-American Cataloguing Rules as applied to maps - a criticism.** In: *Catal. Australia* 3 (1977) No.1-2, p. 12-17

3807 Rajan, T. N.: **Dewey's relative index. A precursor to Thesaurofacet.** In: *Ann. Libr. Sci. Document.* 23 (1976) No. 4, p. 270-274, 6 refs.

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

See also 3733

3808 Fasanya, J. O.: **Ibadan adopts LC.** In: *Intern. Libr. Rev.* 9 (1977) No. 3, p. 279-287, 11 refs.  
Review of the first year (from Jan. 75) of the University of Ibadan's reclassification from the Bliss Bibliographic Classification (BBC) to that of LCC, including analysis of costs.

3809 **Library of Congress Classification.** In: *Catalogg. Serv., Bull.* (1977) No. 121, p. 19

Gives the rules for the classification of official documents and the classic Greek and Roman documents.

3810 Mowery, R. L.: **The "trend to LC" in college and university libraries.** In: *Libr. Resources Techn. Serv.* 19 (1977) No. 4, p. 389-397, 4 refs.

Results of a survey involving 1160 libraries in order to find out about the classification systems used. The LCC is used in more than half of the libraries. The data are presented regarding the use of LCC and DDC in 1971.

3811 Veryha, W.: **Proposal for the revision of the Library of Congress classification schedule in history of Eastern Europe.** In: *Libr. Resources & Techn. Serv.* 21 (1977) p. 354-367

#### 45 On the Bliss Classification, BC

3812 Trotter, R.: **(Comments concerning BC 2.)** (Bliss Classification, 2nd ed.) In: *Catalogue & Index* (1977) No. 47, p. 7-8

General layout & printing. - Multi-volume presentation. - Introduction (general). - Introduction (some specific points.) - (a) Faceting - (b) Hierarchy - (c) Interdisciplinary works - (d) Alternatives - (e) Index. - Auxiliary schedules. - Outlines. Answer to this by J. Mills in *Catalogue & Index* No. 49 (1978), p. 6-7

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

3813 Hadler, P.: **Die Anwendung der sowjetischen Bibliothekarisch-bibliographischen Klassifikation (BBK) an der Universitätsbibliothek Greifswald.** (Application of the Sowjet Library-bibliographical Classification at the university library of Greifswald.) In: *Zbl. Bibl.wes.* 91 (1977) No. 8, p. 367-369

3814 Panov, A. A.: **Major requirements for LBC in the centralized context of the USSR Academy of Sciences Library.** (In Russian). In: *Opyt centraliz. bibl. dela.* Moskva 1977, p. 175-190, 7 refs.

#### 48 On Other Universal CS (alph.)

3815 Beck, H.: **Universalklassifikation und kein Ende. I & II.** (Universal classification without end.) (In Ger-

man). In: *Zbl. Bibl.wes.* 91 (1977) No.4, p.167-176, 25 refs. and No. 5, p. 220-227

Review and careful analysis of I. Dahlberg's conception of a new universal classification system as introduced, argued about and presented in outline in her book "Grundlagen universaler Wissensordnung".

3816 Maltby, A.: **Rider revisited: speculations derived from an unused classification.** In: *Libr. Resources & Techn. Serv.* 21 (1977) No. 1, p. 31-39, 17 refs.

Re-examination of the basic aims of Fremont Rider's International Classification and proposal to test it for shelf classification purposes.

3817 Öhman, E.: **Chinese classification systems, once and at present.** (In Swedish). In: *T. Dokument.* 33 (1977) No. 5, p. 67-72

After a period of 2000 years in which the classification systems were not changed, western systems were introduced and adapted. At present three Chinese classification systems have been elaborated.

3818 Orlov, V. V. et al.: **Classification of STI flows.** (In Russian). Perm: Perm. Universitet 1977. 90 p., 99 refs. (Typescript at VINITI, No. 2788-77)

After an evaluative review the first level of an STI flow classification scheme is presented which is determined in its sequence by the evolution of matter. The steps are nevertheless represented by disciplines, such as: 01 Mathematics, 02 Physics, 03 Chemistry, 04 Biology, 05 Social sciences, 06 Astronomy, 07 Geology, 08 Geography, 09 Engineering. National economy, Management, 10 Medicine.

3819 Saito, K., Morooka, T.: **JICST scientific and technical terms thesaurus.** (In Japanese). In: *Zyoho knari* 20 (1977) No. 2, p. 143-153, 6 refs.

Description of this thesaurus which includes 55 000 lexical units, of which 29 173 are descriptors and 4 825 non-descriptors. Each year a supplement with new sci-tech terms is published.

3820 Steensgaard, D.: **On DK5 - a report on the present position.** (In Danish). In: *Bibliotek* 70 (1977) No.7, p. 166-167

A progress report on the 5th edition of the Decimal Classification used in the List of Danish Books and the Library Centre's printed cards since Jan. 1970. It was recommended (by a special Committee) to retain this classification as a shelving system in public and school libraries.

## 5 On Special Objects CS (Taxonomies)

### 51 Numerical Taxonomy

See also 3514, 3523, 3559-3581, 3664, 3770-3777

3821 Diday, E., Lebart, L.: **L'analyse des données.** (Data analysis.) (In French). In: *Recherche* (1977) No. 74, p. 15-25

Description of the principal modern data analysis methods: transcription, factor analysis, classification of data.

3822 Forst, H. T.: **Zur hierarchischen Klasifizierung von Beobachtungseinheiten nach komparativen Merkmalen.** (On the hierarchical classification of observation units according to comparative characteristics.) (In German). In: *Intern. Classificat.* 5 (1978) No.2, p.81-85, 11 refs.

In the group of hierarchical classification procedures those ones have been predominant so far which classify observation units according to metrical or classificatory characteristics. Classification procedures based on comparative characteristics differing only in their degree of intensity have so far been neglected. The present paper looks into the problems of similarity measurement in the use of comparative characteristics and investigates - by means of data simulation - the efficiency of a pertinent procedure proposed by Lance and Williams. (Author)

3823 Reising, G. H. R.: **Statistical data analysis in the information domain.** In: *Kybernetes* 6 (1977) No. 2, p. 107-123, 20 refs.

3824 Sneath, P. H. A.: **A significance test for clusters in UPGMA phenograms obtained from squared Euclidean distances.** In: *Class. Soc. Bull.* 4 (1977) No. 1, p. 2-14, 7 refs.

A significance test is described for dichotomous clusters in a phenogram obtained by the Unweighted Pair Group Method with Arithmetic Averages (UPGMA) obtained from squared Euclidean distances (or their complements, such as Simple Matching Coefficients). A necessary assumption is that the clusters are approximately hyperspherical. (Author)

3825 Vuillemin, J.: **A data structure for manipulating priority queues.** In: *Comm. ACM* 21 (1978) No. 4, p. 309-315, 8 figs., 27 refs.

A data structure is described which can be used for representing a collection of priority queues. The primitive operations are insertion, deletion, union, update, and search for an item of earliest priority. (Author)

3826 Wright, W. E.: **Gravitational clustering.** In: *Pattern Recogn.* 9 (1977) No. 9, p. 151-166

This paper introduces and describes an algorithm or technique, called gravitational clustering, for performing cluster analysis on Euclidean data. The paper describes the physical gravitational model, an abstract generalized model, and several specific gravitational models. It illustrates clustering by one of these models using several sample data sets, and compares the results with those obtained using two other wellknown nongravitational clustering methods. The paper also illustrates four graphical techniques to aid in the analysis of a clustering. (Author)

## 57 On Commodity CS

3827 Ostarhild, K.: **Problems of commodity classification.** In: *Intern. Classificat.* 5 (1978) No. 1, p. 27-29

The classification of commodities must be seen as a subarea of the general structure of economics. Its objects of concern being both commodities and data on commodities, yielding material characteristics and management data. The "service life" of the commodity monitored by data is marked materially by function and organizationally by "agencies". Concludingly the weak spots in a commodity's "service life" are pointed out. I.C.

## 58 On CS for Kinds of Documents

See also 3789

3829 Manley, K. A.: **The Bodleian classification of manuscripts.** In: *J. Librarianship* 10 (1978) No. 1, p. 56-59, 73, 7 refs.

In 1887 E. W. B. Nicholson devised a simple classification scheme for the manuscripts in the Bodleian Library. His system, which is still employed, is described and compared with the British Museum's practice. Suggests that this scheme (particularly the use of size-division in notation) might, with modifications, be suitable for other libraries. (Author)

3830 Brantz, M. H., Forsman, R.: **Classification and audiovisuals.** In: *Bull. Med. Libr. Assoc.* 65 (1977) No. 2, p. 261-264, 3 refs.

For the audiovisuals the NLM classification was adopted at the University of Connecticut Health Center Library. Present collection over 2 500 items.

3831 Visser, O.: **The Stellenbosch University Medical Library Slide Classification, Storage, Retrieval and Issue System.** In: *Bull. Med. Libr. Assoc.* 65 (1977) No. 3, p. 377-379

## 6 On Special Subject CS

### 63 On CS for the Astro- and Geosciences

3832 Poljakov, G. A. et al.: **Development of a search language for the Central Asian Gas Research Institute's reference/information collection.** (In Russian). In: *Tr. VNII ekon., organiz. prouz.-va i techn.-ekon. inform. v gaz. prom-sti* 1976. Vyp. 1/3, p. 77-80, 5 refs.

3833 Jakušev, V. P., Segal, V. A., Kochmanskij, A. V.: **The information retrieval thesaurus for a specialized IR-system (conception and elaboration).** (In Russian). In: *Naučno-techn. inform. Ser. 2* (1977) No. 7, p. 9-14, 11 refs.

Development of a thesaurus for the field of petrol and gas to be used in the system NEFT-2.

### 64 On CS in the Bio-Area

3834 Nilsson, M. S.: **The interest of a terminology colloquy.** (In French). In: *Bull. Soc. Bot. France* (1975), publ. 1977) No. 122, p. 14-16

The colloquy was concerned with the terminology of pollen.

3835 Bottle, R. T., Perry, K. R.: **Breed and cultivar names in agricultural literature.** In: *Inform. Scientist* 11 (1977) No. 1, p. 19-23, 5 refs.

A special problem in agricultural terminology is posed by the fact that the names in question do not always occur in the titles or texts of the primary literature or in the indexes of secondary documents.

3836 Grozel, G., Rebischung, J.: **Detailed inventory of documentary languages used in agricultural documentation centres.** Luxembourg: Commission of European Communities 1976. 379 p. = CCE-INRA-AGRIDOC-A11 Results of a survey concerning the kinds of systems used as well as their properties.

3837 Mildner, H.: **Summary of joint work on an international thesaurus for agriculture and forestry.** (In Russian). In: *Bjul. nauč.-techn. inform. MS AGROINFORM* 4 (1977) No. 1, p. 3-11, 12 refs.

For an international automated STI system in agriculture and forestry the GDR and the USSR were nominated the co-ordinator-developers. The paper contains a discussion of the design criteria, the subject scope, the relationships between an authority list and the thesaurus, the representation format and other matters.

3838 Nocetti, M.: **Agricultural soil science in universal classification systems. A comparative analysis.** In: *Intern. Classificat.* 5 (1978) No. 1, p. 15-20, 21 refs.

This comparative analysis for the field of agricultural soil science in the DDC, BBC and LCC discusses presentation, structure and material relationships in these systems. Inconsistencies from several points of view are pointed out. A new structure is created using the elements of all three systems, grouping them in several facets and arranging them in an order facilitating their citation order. Some application examples show the applicability of the proposed system. (Author)

3839 Breitling, W.: **Forestry terminology contained in the FAO index term list.** Paper, 3rd Techn. Consult. on AGRIS FORESTRY, Nancy, 14-16 June 1976. Roma: FAO 1976. 7 p., 15 refs.

From the 11 500 terms which constitute the FAO list of index terms some 1 250 have been selected for forestry and transformed into a thesaurus.

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

See also 3709, 3720, 3761

3840 Lundsteen, C., Granum, E.: **Visual classification**

*Intern. Classificat.* 5 (1978) No. 3 Classification Literature

of banded human chromosomes. II. Classification and karyotyping of integrated density profiles. In: *Ann. hum. genet.* 40 (1977) No. 4, p. 431–442, 8 refs.

3841 Kiselev, A. S., Petrovsky, A. B., Pimenov, B. J.: **Multifaceted classification of medical scientific research concept of systems approach.** In: *Intern. Inst. Appl. Syst. Anal. Conf., Proc., Austr.* 1977. 77, No.4, p. 527–530

Logical approach toward the construction of a classification system for medical research.

3842 Major, P., Anderson, J., Kostrewski, B.: **Languages for medical information systems.** In: *Medical Informatics* 2 (1977) No. 1, p. 35–46

3843 Kayser, K., Burkhardt, H. U., Jacob, W.: **Medical thesaurus.** In: *Med. Informat.* 2 (1977) No. 1, p. 47–55, 17 refs.

Advantages and difficulties in the use of the medical thesaurus are stated. The proposed solution would be a thesaurus which could identify and have a distinct structure at the same time.

3844 Ries, P., et al.: **Konzeption einer off-line Version der Ergänzung des AGK-Thesaurus.** (Conception of an off-line updating of a histological thesaurus.) (In German). In: *Med. Inform. u. Statist.* (1976) No. 1, p. 99–104, 2 refs.

Updating patterns of a histological thesaurus are analysed and an automatic thesaurus maintenance procedure is presented.

3845 Röttger, P., Küsel, W.: **Die Erstellung eines Link-Thesaurus zur differenzierten Implikationserschließung in der medizinischen Klartextverarbeitung.** (Construction of a link thesaurus for differentiated natural language processing in the medical field.) (In German). In: *Med. Inform. u. Statist.* (1976) No. 1, p. 105–109, 9 refs. Reasons are given why medical statements must be semantically processed before being entered into a long-term memory. A thesaurus is described for the automation of this function.

3846 Caffarel, A.: **Classification of clinical nursing texts: A new approach.** In: *Bull. Med. libr. Assoc.* 66 (1978) No. 1, p. 52–54, 2 tabs., 4 refs.

NLM Classification and clinical nursing texts – A new approach – Correlation with medical schedules – Differences in distribution – The problem of reclassification.

3847 Marx, J.: **Multiaspect objective information description: Psychological and relational topics characteristic of the personal documentation system.** (In Czech). In: *Čs. inform.* 19 (1977) No. 6, p. 169–173, 10 refs. Describes the development and use of a free-language personal information system for psychology and related subjects. (Author)

3848 Arnold, W.: **Ordnungsmittel und Ordnungsmethoden in Informationssystemen Sport.** (Means and methods for concept organisation in the information retrieval systems for sports.) (In German). In: *DK-Mitt.* 19 (1975) No. 6, p. 15–20, 4 refs. (publ. 1978-07).

The sections are concerned with: structural and conceptual orientation. Systematics and classification. Ordering systems. Ordering- and search processes in physical education and sports. Indexes, contents lists. Catalogs, files, abstract services. Classification of sports. Work of the Commission IBDI/IASI.

## 66 On CS in the Socio-Area

See also 3462, 3474

3849 Ohly, H. P.: **Möglichkeiten und Probleme der empirischen Analyse und des Vergleichs von sozialwissenschaftlichen Dokumentationssprachen – dargestellt am Beispiel der Indexierungsergebnisse zu empirischen Sozialwissenschaftlichen Forschungsprojekten.** Köln: Diplomarbeit Universität Köln 1976. 233 p., 11 app., bibliography.

This master thesis (accepted by Profs. Scheuch, Mayntz and

Neidhardt) is concerned with "Possibilities and problems of empirical analysis and comparison of social science indexing languages – presented by the indexing results of empirical social science research projects".

3850 **Parameters for indexing and retrieval (in development).** In: *DEVSI. Prelim. des int. inf. syst. developement sci. Sess.4; Paris 1975.* Ottawa: Inst. Dev. Research Centre 1976. p. 58–64

Discussion of the principles that go into the elaboration of the DEVSI thesaurus: categorisation, indexing and analysis, retrieval modalities and access possibilities.

3851 Schwarz, H.: **Legal and administrative language.** In: *Babel* 23 (1977) No. 1, p. 19–22, 7 refs.

Discussion of general characteristics of administrative and legal terminology as well as of translation problems.

3852 Schulze, Ursula: **Untersuchungen zur automatischen Erzeugung eines Vokabulars aus Texten juristischer Entscheidungen und zur Strukturierung dieses Vokabulars durch Anwendung von Clusterverfahren.** (Investigations into the automatic generation of a vocabulary from texts of juridical decisions) (In German). *Bir-linghoven: Ges. f. Math. u. Datenverarb.* 1977. 106 p. = GMD-Mitt. Nr. 40

Study is based on decision by the Constitutional Court of the FRG within the period from 1951–1972, available in full-text as a machine-readable data base. The aim of this study was the automatic analysis and presentation of the subject-matter of this material. Pt.1 gives a presentation of the results as usual for thesauri, Pt.2 refers to the automatic extraction of the vocabulary from natural language texts using frequency criteria, Pt.3 describes the cluster methods used and their application, Pt.4 presents a synopsis of experiences and conclusions resulting from these studies. (Author, abbr.)

3853 Guttenberg, A. Z.: **Classifying regions: a conceptual approach.** In: *Intern. Regional Sci. Rev.* 2 (1977) No. 1, p. 1–13, 30 refs.

The concept of region is shown to involve an element of social evaluation, of practical social action, and of visionary reform as well as an element of scientific inquiry. Corresponding to these elements four modes of regionalization and of regional classification are identified. By naming these modes the vocabulary of regional studies is both expanded and refined. Examples of the types of region produced by each regionalization mode are presented and discussed. (Author)

3854 Bandur, G.: **Nutzerorientierte Erschließung von Archivgut und die Anwendung des „Geschichtswissenschaftlichen Thesaurus“.** (User-oriented indexing of archive materials and the application of the "Thesaurus for history".) (In German). In: *Archivmitt.* 27 (1977) No. 3, p. 108–117, 4 refs.

## 67 On CS in the Economics and Technology Area

See also 3910–3912

3855 Romanov, A. N., Skorova, A. A.: **The design and use concept of an economic information language in the sectoral information-reference system.** ((n Russian). In: *Ekonom. inform., Moskva* 1977. p. 85–104, 5 refs.

3856 Kotov, R. G.: **Linguistic aspects of management information systems.** (In Russian). Moskva: Nauka 1977. 167 p.

Discussion of the use of natural language for information handling automation in management systems, more specifically for MIS data processing. (Author, abbr.)

3858 Terebessy, A.: **Experiences in preparing a thesaurus for building information in two or more languages.** (In Hungarian). In: *Könyvtari Figyelő* 23 (1977) No. 1–2, p. 51–58

Report on the Hungarian work/contribution toward an International Thesaurus for Building, a cooperative venture of the

CMEA countries. Experiences gained in connection with this multi-lingual thesaurus.

3859 Zingel, H.-J.: **Experiences with TITUS II.** In: Intern. Classificat. 5 (1978) No. 1, p. 33-37

Description of the international cooperative documentation system called TITUS (Textile Information Treatment Users' Service) in its previous and present form (TITUS II). It uses a special linguistic way of automatic translation of abstracts and index terms (with a controlled vocabulary and a controlled syntax) in order to supply users of the English, French, German or Spanish language with abstracts in their native language from inputs in one of the other languages. I.C.

3860 Beisteiner, R.: **Einheitliche Begriffe in Förder-technik und Transportwesen.** (Standardized terms for manutention and transport.) (In German). In: Fördern u. Heben 27 (1977) No. 5, p. 507-509, 3 refs.

## 69 On CS in the Culture Area

See also 3747

3861 Crvčanin, M. M.: **The thesaurus - definition and structure.** (In Serbocroate). In: Bibliotekar 29 (1976) No. 2, p. 241-261

Elaboration method of a thesaurus for the plastic arts (sculptures).

3862 Kotei, S.: **Trends in the classification and cataloguing of materials relating to Africa.** (Presented at the SCOLMA Conference on Progress in African Bibliography London, March 1977. Legon, Ghana: Univ. of Ghana. Dept. of Library and Archival Studies. 1977. 40 p., 54 refs.

3863 Jovanovicj, S.: **Treatment of the archeological literature for a subject catalogue.** (In Serbocroate). In: Bibliotekar 28 (1977) No. 2, p. 208-225

Study to determine the possibilities for an elaboration of a subject classification for archeology.

## 7 Classification and Language

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

See also 3522

3864 Lakoff, G.: **Linguistic gestalts.** In: Funktionale Grammatiken und Weltwissen. 4. Intern. "Summer School on Computational and Mathematical Linguistics", Pisa, 8-26 Aug. 1977. Pisa: Univ. of Pisa 1977. 50 p., 21 refs.

"Gestalts" is used for the kinds of structures which organize language, thought, cognitive processing and the like.

3865 Savan, D.: **Questions concerning certain classifications claimed for sign.** In: Semiotica: 19 (1977) No.3-4, p. 179-195, 15 refs.

Discussion of the sign-theories of Peirce.

3866 Trabant, J.: **Elemente der Semiotik.** München: C. H. Beck 1977. 119 p.

Survey on the existing sign-theories and development of an own theory with a more special denotation of signs characterized through action-orientation. Signs therefore are semantic and cooperative, they must be the common possession of those participating in the sign-giving and sign-understanding process.

3867 Batušek, J.: **Zur linguistischen Klassifizierung der Fachtexte.** (On the linguistic classification of technical texts.) (In German). In: Z. zag. strukt. cech języka nauk.-tech., Wrocław (1976) p. 27-30, 3 refs.

The paper is concerned with classification methods applied to professional texts. Horizontal classification considers the way in which extralinguistic reality (i.e. the theme and subject of information) is expressed. Vertical classification, on the other hand, takes account of the way in which the structure of language is affected by its so-called situation, i.e. the functioning of a given text in the specific time, society and communication sphere.

(Author)

## 72 Semantics

3868 Biller, H., Neuhold, E. J.: **Semantics of data bases: the semantics of data models.** In: Inform. Syst.3 (1978) No. 1, p. 11-30, 42 refs.

Introduction of an abstract data model suited to express the semantics of schemas or data instances. To represent this model a logical data definition language is proposed and a logical data language which allow to specify the kind of information which may be stored in the data base and which ensure the correctness and consistency of this information. (Authors, abbr.)

The paper is commented upon by Börje Langefors (see p. 31-34 of this issue) who draws a number of parallels to his Infology concepts. The authors (Biller and Neuhold) answer to these comments (see p. 35-36).

3869 Knorina, L. V.: **Analysis of invariant attributes of substantives.** (In Russian). In: Naučno-techn. inform. Ser. 2 (1977) No. 8, p. 20-25, 15 refs.

3870 Paščenko, N. A.: **Automatic resolution of lexical homonymy and polysemy.** (In Russian). In: Eksp. sist. avtomat. indeksir. tekstov. Moskva 1977. p. 64-70

3871 Paščenko, N. A.: **Semantic analysis of prepositionless nominal word-groups.** (In Russian). In: Eksp. sist. avtomat. indeksir. tekstov. Moskva 1977. p.71-75

Description of the unit for automatic semantic analysis or semantic interpretation of syntactic relations between nominal word-group components.

3872 Seuren, P. A. M.: **Zwischen Sprache und Denken.** Ein Beitrag zur empirischen Begründung der Semantik. (Between language and thinking. A contribution toward an empirical foundation of semantics.) (In German). (Translated from the Dutch). Wiesbaden: Akad. Verlages. Athenaion 1977. ISBN 3-7997-0662-3

## 73 Automatic Language Processing

See also 3765

3873 Chernjavsky, V.: **On algorithmic natural language analysis and understanding.** In: Inform. Syst. 3 (1978) No. 1, p. 5-10

3874 Ciganik, M.: **Information systems based on text data processing.** (In Czech). In: Kněžnice a ved. inform. 9 (1977) No. 4, p. 149-157, 24 refs.

3875 Dietze, J.: **Ein frequenzstatistisches Verfahren zum automatischen Indexieren.** (A frequency statistical method for automatic indexing.) (In German). In: Z. Phonet. Sprachwiss. Kommunik. Forsch. 30 (1977) No. 1, p. 58-69, 26 refs.

3876 Haller, J., Wieland, U.: **Die Erschließung natürlicher sprachlicher Information im Informationssystem CONDOR.** (Processing of natural language in the CONDOR information system.) (In German). In: Nachr. Dokum. 29 (1978) No. 4/5, p. 177-183, 11 refs.

Processing of natural language in documents is carried about in CONDOR (Communication in Natural language with Dialog Oriented Retrieval Systems) by means of a linguistic and a statistical component. (Author abbr.)

3877 Hayes-Roth, B.: **Lexical information in memory for text.** Santa Monica: Rand Corp. 1977. 24 p. = Rand-P-5832

3878 Kuhlen, R.: **Experimentelle Morphologie in der Informationswissenschaft.** (Experimental morphology in information science.) (In German). München: Verlag Dokumentation 1977. 237 p., 197 refs. ISBN 3-7940-3624-7

Application possibilities of morphological analysis, especially for automatic indexing and retrieval are presented taking into account reduction and normalization.

3879 Nešitov, V. V.: **Distribution of keywords in a text.** In: *Kibernetika USSR* (1977) No. 2, p. 123–131, 4 refs. Description of a retrieval method concerning the distribution laws of keywords starting from an analytical relation between the length of a text and the volume of a dictionary.

3880 Pao, M. L.: **Automated text analysis based on transition phenomena of word occurrences.** In: *J. Amer. Soc. Inform.Sci.* 29 (1978) No. 3, p. 121–124, 3 tabs., 13 refs.

A method of selecting index terms directly from a word frequency list is described. The original idea was suggested by Goffman who reasoned that the most content-bearing words of a given text would occur at the transition region at which Zipf's First Law of words of high frequency of occurrences begins to take on properties of words of low frequency of occurrences. Word frequencies of two articles were analyzed. Results seem to indicate that the automated selection of index terms from a frequency list holds some promise for automated indexing. (Author, abbr.)

3881 Radhakrishnan, T.: **Selection of prefix and postfix word fragments for data compression.** In: *Inform. Proc. & Manag.* 14 (1978) No. 2, p. 97–106, 4 figs., 3 tabs., 16 refs.

In this paper a simple algorithm is used for selection of a set of codeable substrings that occur at the front or rear of the words in a textual data base. Since the words are assumed to be non-repeating, the technique is useful for data compressions of dictionaries. The time complexity of the algorithm is governed by the associated sorting algorithm and hence is  $O(n \log n)$ . It has been applied to three sample data bases, consisting of words selected from street names, authors names, or general written English text. The results show that the substrings at the rear of the words, yield better compression than those at the front. By application of results of an earlier study in compression coding, efficient encoding and decoding procedures are presented for use in on-line transmission of data.

3882 Schott, G.: **Automatische Kompositazerlegung mit einem Minimalwörterbuch zur Informationsgewinnung aus beliebigen Fachtexten.** (Automatic decomposition of compound terms with a "minimal-dictionary" for information purposes from arbitrary texts.) (In German). In: *Reihe: Medizinische Informatik.* Springer Verlag 1977. p. 32–43, 8 refs.

3883 Steels, L.: **Exercise book for the course "Introduction to computational linguistics."** In: *Linguistics and philosophy* (1977) No. 1, p. 2–44, 39 refs. Summary of ideas, theories and formalisms developed by computational linguists and artificial intelligence researchers to deal with the problem of natural language processing.

3884 Wingert, F.: **Morphosyntaktische Zerlegung von Komposita der medizinischen Sprache.** (Morphosyntactical decomposition of terms in medical language.) (In German). In: *Meth. Inform. Med.* 16 (1977) No. 4, p. 248–255, 7 refs.

## 75 Question-answering Systems

3885 Waltz, D. L.: **An English language question answering system for a large relational database.** In: *Commun. ACM* 21 (1978) No. 7, p. 526–539, 8 figs., 32 refs. By typing requests in English, casual users will be able to obtain explicit answers from a large relational database of aircraft flight and maintenance data using a system called PLANES. The design and implementation of this system is described and illustrat-

ed with detailed examples of the operation of system components and examples of overall system operation. (Author abbr.)

3886 Kelly, M. J., Chapanis, A.: **Limited vocabulary natural language dialogue.** In: *Intern. J. Man-Machine Studies* 9 (1977) p. 479–501

Report of an experiment in which two-person teams of subjects worked at realistic problem-solving tasks by communicating through a teletypewriter system. The main finding was that subjects who worked with the restricted vocabularies interacted and solved problems as successfully as their counterparts who worked with no vocabulary restrictions. The results indicate that, at least for the kinds of problems tested here, it is possible to develop vocabularies of limited size that can be used effectively in man-computer communications. (Authors, abbr.)

3887 Michaelis, P. R., et al: **Word usage in interactive dialog with restricted and unrestricted vocabularies.** In: *IEEE Trans. on Prof. Commun.* 20 (1977) No. 4, p. 214–221, 10 refs.

The findings of this investigation suggests that small vocabularies can be successfully used provided they are tailored to their specific applications. (Author, abbr.)

## 76 Lexicon/Dictionary Problems

3888 Bratley, P., Lusignan, S.: **Information processing in dictionary making. Some technical guidelines.** In: *Comput. and the Humanities* 10 (1976) No. 3, p. 133–143, 10 refs.

3889 Buksch, H.: **Das technische Übersetzungsfachwörterbuch.** (Technical translation dictionaries) (In German). In: *Terminol. Bull., Luxemburg* (1977) No. 29, p. 63–81

3890 Fleck, K. E. W.: **Buchbesprechung von Wahrig, G.: Deutsches Wörterbuch.** Gütersloh: Bertelsmann 1975. (Neuaufgabe) 1488 S. In: *Lebende Sprachen* 23 (1978) No. 1, p. 36–38

The review is based on a thorough examination of Wahrig's Dictionary of the German Language and analysis its macrostructure – selection of words/terms and formal arrangement of entries – and its microstructure and concludes with a praise of the particular care of elaboration, the richness of material assembled in one volume and the precision in the formulations.

3891 Paščenko, N. A. et al.: **An automatic dictionary in an experimental text indexing system.** (In Russian). In: *Eksper. sist. avtomat. indeksir. tekstov.* Moskva 1977. p. 11–20

Presentation of the dictionary structure and content.

3892 Schumacher, H.: **Probleme der Valenzlexikographie.** Bericht über ein Kolloquium am Institut für deutsche Sprache in Mannheim 29.–30. Sept. 1976. (Problems of lexicography of valencies.) (In German). In: *Z.f. Germanist. Linguistik* 5 (1977) No. 3, p. 321–331, 33 refs.

## 77 General Problems of Terminology

See also 3550, 3656

3893 **Association Française de Terminologie (AFTERM)** In: *Lebende Sprachen* 22 (1977) No. 4, p. 187–188  
Description of the objectives of AFTERM, its principle activities in 1976 and its program for 1977 (Module de néologie, Inventaire des travaux et des organismes de terminologie, Etude de faisabilité d'une banque de données terminologiques).

3894 Berner, K. E.: **Auswirkungen des Einsatzes der Datenverarbeitung auf Theorie und Praxis der Terminologie.** (Effects of data processing on theory and practice of terminology.) (In German). In: *Sprachmittler* 16 (1978) No. 1, p. 18–28

3895 Dubuc, R., Paré, M., Grégoire, J.-F.: **Description du système Termium de la Banque de Terminologie de**

l'Université de Montréal. (In French). In: *Lebende Sprachen* 22 (1977) No. 4, p. 153–154, 23 (1978) No. 1 p. 3–8

Terrium is a terminology bank in Montreal which aims at (1) uniting the existing terminology documentation, (2) encourage methodological efforts regarding terminological researches in fields which are not as yet explored enough and (3) bringing all information possible to the users at a reasonable price and according to fast and efficient processes.

3896 Dubuc, R.: *Quest-ce que la terminologie?* In: *Banque des Mots* (1977) No. 13, p. 3–14, 14 refs.

Definition of terminology. Basic methods of terminological work, neologisms and normalisation. Terminology must remain in close contact with the user. User needs and access instruments for terminological information.

3897 Felber, H.: *Infoterm News*. In: *Intern. Classificat.* 5 (1978) No. 1, p. 41–42

Contains reports on: Terminology and terminological lexicography.— Computational aids in terminology and lexicography.— Study on the development of a network for terminology information and documentation (TermNet).— Terminology Centre Wieselburg.

3898 Karlgren, H.: *Computerized terminology*. In: *Computers and Humanities* 10 (1977) No. 6, p. 345–6

Description of the project Term-Tuning which uses a computer for the analysis and evaluation of terminological data.

3899 Lindemann, K. H.: *Terminological guidelines for the edition of information sources*. (In Russian). In: *Nauč.-techn. inform. Ser. 1* (1977) No. 7, p. 4–9, 11 refs.

3900 Pelka, R.: *Grundsätzliche linguistische Probleme der Vereinheitlichung und Normung von Terminologien*. (Principal linguistic problems in unifying and standardizing terminology.) (In German). In: Pelka, R. et al: *Sprachwissenschaft und Terminologiearbeit 2*. Dortmund: Rhein-Ruhr Druck 1977. p. 7–17, 19 refs.

3901 Rondeau, G., Gregoire, J.-F., Tessier, P.: *Banque de terminologies et linguistique computationnelle*. In: *Meta* 22 (1977) No. 3, p. 184–191, 2 refs.

The tasks of the terminology banks and the information which they may furnish to the users are described.

3902 Schewe, W. H. U.: *Terminologie- und Fachsprachenarbeit in Relation zu Information und Dokumentation*. (Terminology work in relation to information and documentation.) (In German). In: *DK-Mitt.* 19 (1975) No. 4, p. 11–13 (ersch. Juni 78).

3903 Sundström, E.: *Introducing TNC and the TERMDOK system*. In: *Intern. Classificat.* 5 (1978) No. 2, p. 86–90

The Swedish Centre of Technical Terminology, TNC, is a non-profit organization engaged in elaboration and dissemination of terminology. Work at TNC is centered on a procedure which is intended to safe-guard the influence of interested parties on the shaping of the terminology. The TERMDOK system has been conceived of as an information handling aid in this work. It contains programs for updating and search in a term bank, making possible interactive editing of terminological data. A shift in emphasis is discernible in the elaboration of terminology, from systematic work on more or less clearly delimited technical fields to a form more adapted to the need for rapid decisions on individual terminological questions. computerization is one of several factors influencing this tendency. (Author)

3904 Turkin, V. M.: *On term typology*. (In Ukrainian). In: *Movoznavstvo* (1977) No. 2, p. 19–22

3905 *Les organismes de terminologie du monde francophone et les organismes internationaux de terminologie*. In: *Meta* 22 (1977) No. 2, p. 126–132  
Short description of the activities of the main terminological

institutions serving the French language and the international ones with which they are in contact.

3906 *The TERMDOK Bulletin*. In: *Intern. Classificat.* 5 (1978) No. 2, p. 109–111.

This new section within the periodical *Intern. Classificat.* reprints the Newsletter issued monthly (on one sheet A4) by the Swedish Centre of Technical Terminology, Stockholm, Sweden, its editor being Mr. E. Sundström; here the Nos. 28, 29 and 40.

3907 *Terminological Symposia 1967–1977*. In: *Intern. Classificat.* 5 (1978) No. 2, p. 107–108.

Lists the international and national conferences concerned with problems of terminology of the last ten years. (Item of *Infoterm News*).

## 78 Special Terminology Problems

See also 3553, 3554

3908 Khlok, D.: *Etude terminologique de mot solide et problèmes de traduction connexes*. (In French). In: *Meta* 21 (1976) No. 4, p. 264–274

3909 Makarovoj, I. V.: *Proposals for a standardization of terminology and diagnoses concerning the Diatomees*. In: *Bot. Ž.*, SSSR 62 (1977) No. 2, p. 192–213, 3 refs.

Definitions of terms and their equivalents in Latin, French, English, German and Russian.

3910 Fischer, H. J.: *Die Zollnomenklatur und ihre Bedeutung für die Fachterminologie*. (The customs nomenclature and its significance for terminology.) (In German). In: *DIN-Mitt.* 57 (1978) No. 6, p. 335–336

3911 Schnegelsberg, G.: *Die Bildung eines fachsprachlichen Bezugssystems aus textilspezifischen Begriffen durch Verschachtelung logifizierter Begriffsfelder*. (The formation of a terminological reference system of concepts in the field of textiles by interposition of concept fields.) (In German). In: Pelka, R. et al: *Sprachwissenschaft und Terminologiearbeit 2*. Dortmund: Rhein-Ruhr-Druck 1977. p. 27–59, 26 refs.

3912 Müller, Freigang: *Die Systemtechnik. Ihre Anwendung auf die textilbezogene Terminologie*. (Systems technology and its application to textiles terminology.) (In German). In: *Mittex*, Zürich 83 (1976) No. 9, p. 238–243

Attempt at supplementing the work of G. Schnegelsberg: *Systematik der Textilien*. München 1971, by adding to its approach a function-oriented aspect.

3913 Gorkova, V. I., Kolobrodova, E. S.: *Informatika II. Theoretical and practical problems of informatics terminology*. (In Russian). Moskva: VINITI 1977. 137 p. (Itogi nauki tech.)

3914 Bouchard, D., Duval, N.: *Calculator, computer et leurs équivalents français*. In: *Meta* 21 (1976) No. 4, p. 261–264

Study of the semantic field of these terms and their accepted equivalents in English and French.

3916 *Gestion théâtrale*. (In French). In: *Meta* 22 (1977) No. 2, p. 125–126

The vocabulary of terms relating to theatre juxtaposed from England and the USA.

3917 Herms, I.: *Nutzung internationaler Wortbildungselemente zur Erleichterung der Aneignung neuer Termini in der fachsprachlichen Russischausbildung*. (Use of internationally known word-elements to facilitate the acquisition of new terms in the teaching of Russian terminology.) (In German). In: *Wissenschaftl. Z. Techn. Hochsch. O.v.Guericke Magdeburg* 21 (1977) No. 1, p. 99–105, 14 refs.

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

3918 Bruderer, H. E.: **Handbuch der maschinellen und maschinenunterstützten Sprachübersetzung.** Automatische Übersetzung natürlicher Sprachen und mehrsprachige Terminologiedatenbanken. (Handbook of Machine Translation and Machine-aided Translation.) (In German). München/New York: Verlag Dokumentation Saur KG 1978. 864 S., ISBN 3-7940-7005-4. DM 148,-

3919 Carosella, M. P.: **The UDC, a terminological vocabulary in fact.** (In Italian). In: *Terminologie*, Luxembourg (1977) No. 28, p. 63-65, 4 refs.  
The invariable numerical tables of the UDC serve as a key for the translation of corresponding terms into different languages.

3920 Hoppe, D.: **Erfahrungen der GMD bei maschinellen Übersetzungen mit SYSTRAN.** (Experiences of the Society for Mathematics and Data Processing (GMD) with the mechanical translation system SYSTRAN.) (In German). In: *GMD-Spiegel* 8 (1978) No. 1, p. 15-26, 3 refs.

3921 Kulagina, O. S.: **History and present state of machine translation.** (In Russian). In: *Kibernetika, USSR* (1976) No. 6, p. 124-131  
Historical account of the development in the field of machine translation with special regard to the activities in the USSR and in other countries.

3922 Landsberg, M. E.: **Translation theory: an appraisal of some general problems.** In: *Meta* 21 (1976) No. 4, p. 235-251  
The model used takes into consideration the linguistic levels of morphology, phonology, syntax, lexicon, semantics and stylistics.

3923 Tomasik-Beck, J.: **Problem of equivalents of terms in multilingual thesauri.** (In Polish). In: *Aktual. probl. inform. i dokum.* 22 (1977) No. 5, p. 21-24, 6 refs.  
The difficulties occurring in trying to establish the equivalents of terms in different languages are presented. Three types of term equivalence are discussed: total, partial and zero.  
(Author, abbr.)

## 8 Applied Classing and Indexing

### 81 General Problems and Indexing Rules

See also 3549

3924 Fugmann, R.: **Zur Frage der Vereinheitlichung des Indexierens.** (Concerning standardization in indexing.) (In German). In: *Nachr. Dok.* 29 (1978) No. 3, p. 121-126, 3 figs., 13 refs.  
In his "Contribution No. 5 Toward a Retrieval System Theory" the author shows the possibilities and limitations of standardizing the indexing process. These requirements can be met satisfactorily by observing some uniform standard for establishing an indexing language and its usage. Any attempt to standardize the indexing procedure is bound to lead to a forced and unsatisfactory compromise between widely diverging requirements, and such a compromise would be far from working efficiently in almost any case of its practical application. (Author abstr.)

3925 Harrod, L. M., Piggott, M.: **The British Standards Institution and its recommendations for indexes.** In: *Indexer* 10 (1976/77) No. 4, p. 186-191  
In a meeting of the Society of Indexers, Jan. 11, 1977, the standard BSI 3700.1976: "Recommendations for the preparation of indexes to books, periodicals and other publications" was presented and discussed.

3926 Keen, E. M.: **Research on the design and evaluation of printed subject indexes.** In: *EURIM II. Proceed-*

*ings.* 23-25 March 1976, Amsterdam. London: Aslib 1977. p. 174-177, 3 refs.

Investigation into the performance of 6 published indexes in the field of library and information science suggested that LISA, LL and ISA had the best results concerning recall, time per relevant item retrieved etc. Another study involved 4 indexes in the same field, each composed of entries of a different type, all of them context-preserving. Performance differences were not considerable.

3927 Kinross, R.: **The typography of indexes.** In: *Indexer* 10 (1976/77) No. 4, p. 179-185, 1 ref.  
Stresses the significance of a well-adapted typography to the contents of an index and the needs of the reader.

### 83 Indexing of and by Titles, Phrases

See also 3736

3928 Garfield, E.: **The Permuterm Subject Index: an autobiographical review.** In: *J. Amer. Soc. Inform. Sci.* 27 (1976) No. 5/6, p. 288-291  
Reasons are discussed for the adoption of the Permuterm Subject Index (PSI) of the Science Citation Index in preference to a KWIC index. PSI vocabulary could have an enormous significance for scientific lexicology, since it reveals the current language of scientific authors.

3929 Austin, D., Digger, J.: **PRECIS: the Preserved Context Index System.** In: *Libr. Resources & Techn. Serv.* 21 (1977) No. 1, p. 13-30, 8 refs.  
Report on the extension of the initial objectives of PRECIS.

3930 Ferrier, A.-M.: **PRECIS. Un système automatisé d'indexation matières.** (In French). In: *Bull. Dica, France* 2 (1977) No. 3-4, p. 17-21  
Experiences in subject indexing with PRECIS with about 100 titles from the Arts du spectacle Department of the French National Library are reported.

3931 Fjällbrant, N., Sörensen, J., Westberg, S.: **PRECIS: an indexing system to be reckoned with in the future.** (In Danish). In: *Biblioteksbladet* 62 (1977) No. 6, p. 97-100, 6 refs.

3932 Wellisch, H.: **Precis, a new indexing system.** In: *Israel Soc. Spec. Libr. Inform. Centres Bull.* 8 (1977) No. 1, p. 62  
Description of the system and its advantages. Suggestion to utilize it in the libraries of Israel.

### 85 Book Indexing

3933 Gratch, B., Settel, B., Atherton, P.: **Characteristics of book indexes for subject retrieval in the humanities and social sciences.** In: *Indexer* 11 (1978) No. 1, p. 14-23, 2 tabs., 9 refs.  
The characteristics of indexes in 113 books in nine disciplines of the humanities and social sciences have been measured, analysed, and compared to the standards and guidelines for indexes established by the American Standards Institute and the British Standards Institution. These books were taken from a representative sample of English language monographs in these subject fields which had been selected for the Subject Access Project. Categories of analysis include: statistics of the number of index pages, lines per index page, and indexing density; arrangement of index; scope of index; style and format of index headings and subheadings; types and use of locators; types and use of control devices; and the physical appearance of indexes. The findings reveal some serious inadequacies of book indexes for subject retrieval. (Authors, abbr.)

3934 Pierce, J. C.: **Back-of-book subject indexing with APL: Automated indexing for those without computer background.** In: *Inform. Proc. & Manag.* 14 (1978) No. 2, p. 85-91, 4 figs., 34 refs.  
The author considers the question of the utility of a book indexing computer program for those without computer background

or experience. APL timesharing systems seem well adapted to support a simple "portable" and relatively inexpensive system to operate for this purpose. The author's APLDEX system use 8 "commands" such as POST, SORT and FORMAT to produce and index of three hierarchical levels suitable for use as a substitute for "manuscript" indexes produced manually. Using the system in situations when time is a factor in the evaluation of alternatives, APLDEX is not unreasonable in cost. A 1200-entry index can be produced in just over one working day for a cost of approx. \$ 150.— (Author, abbr.)

## 87 Indexing of Secondary Literature

3935 Boehm, E. H.: **Twenty-five years of history indexing: a practitioner's report.** In: *Indexer* 11 (1978) No. 1, p. 33–42, 3 figs.

The article reviews the history of indexing at the American Bibliographical Center, Santa Barbara, California, and its antecedents, for *Historical Abstracts* (1955–) and *America: History and Life* (1964/65–). *Historical Abstracts* now covers the literature from 1900 periodicals, worldwide, in two parts: Part A *Modern History Abstracts* (1450–1914) and Part B *Twentieth Century Abstracts* (1914 to the present). The article concludes with seven suggestions concerning indexing of ongoing bibliographical services. (Author)

3936 Harris, J. L.: **The cumulative index to the Annual Review of Information Science & Technology.** In: *Indexer* 11 (1978) No. 1, p. 24–32, 5 figs.

Cumulating existing indexes poses problems different in many respects from original indexing. The preparation of the cumulative index to volumes 1–10 of the *Annual Review of Information Science and Technology* is described. Economic considerations prohibited complete reindexing; instead, conflicting terminology was resolved, scatter reduced, cross reference structure extensively developed, and personal name conflicts resolved. For the best success, cumulation must be provided for in the original index design, and continuity of indexers maintained. (Author)

3937 Mischo, W. H.: **An augmented keyword index to abstracting and indexing services.** In: *J. Acad. Librarianship* 3 (1977) No. 3, p. 141–145, 11 refs.

Discussion of the Iowa State University Library Reference Department's computer-organised augmented keyword index to its holding of abstracting and indexing services. The guide is comprised of title words and added descriptors.

## 88 Indexing of Primary Literature and Documents

3938 Kajberg, L.: **Some notes on the indexing of a library science periodical: The index to Libri vols 1–25.** In: *Indexer* 10 (1976/77) No. 4, p. 191–194

3939 Lawrence, B.: **Preparation of desk-top literature indexes for ongoing research.** In: *J. Amer. Soc. Inform. Sci.* 27 (1976) No. 4, p. 260–261, 6 refs.

3940 Pobjola, P.: **Experiences in the use of keyword indexing and microfilm in the technical information services of the OVAKO group.** In: *Aslib Proc.* 29 (1977) No. 3, p. 112–117.

The Finnish OVAKO group operates in the field of steelmaking.

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

### 91 General Problems of Organisation of Classification

3941 Craig, J. F., Grefsheim, S. F.: **Intraschool cross-indexing system to encourage sharing of departmental**

**collections.** In: *Bull. Med. Libr. Assoc.* 65 (1977) No. 3, p. 382–384, 1 tabl.

### 92 Persons and Institutions in Classification

See also 3549, 3893, 3928

3942 **Classification Research Group. Bulletin No.11.** In: *J. Doc.* 34 (1978) No. 1, p. 21–50

Report on the topics discussed in the CRG Meetings since 1973, in particular the Problems of a general classification. The Library and Information Science Classification, Thesauri, ISIS Cumulative Bibliography, Bliss Bibliographic Classification, Broad System of Ordering. A bibliography of writings by 16 members of the Classification Research Group is appended as well as a list of the 50 members as at 31 July 1977.

3943 Hildebrand, A.: **Vom Manuskript zum Lochstreifen. Der Wörterbuchautor Gerhard Wahrig. (On the lexicographer Gerhard Wahrig.) (In German).** In: *Sprachdienst* 22 (1978) No. 2, p. 17–20

Acknowledgement of Wahrig's pioneering dictionary of the German language of 1966 and short biography with special regard to the work leading to the new dictionary ("dtv Wörterbuch der deutschen Sprache"), which appeared in April 1978. (The 16 000 basic German words and their meanings and definitions.)

3944 Palmer, B. I.: **Encounter with Ranganathan (2).** In: *Herald Libr. Sci.* 16 (1977) No. 1–3, p. 215–219

Describes the pattern of relationship with Ranganathan, and his teaching of *Fundamental Categories, Facets and Phases*. States of the work on classification and other areas of librarianship that was learnt from Ranganathan. Points out the issues that led to an intimate contact with Ranganathan and the beginning of a new phase in his personal life. (Author)

3945 Schnelle, H.: **Yehoshua Bar-Hillel (1915–1975).** In: *Z. f. allg. Wissenschaftstheorie* 9 (1978) No. 1, p. 1–12 (In German)

Evaluation and praise of the many contributions of Bar-Hillel concerning foundations of semantics and pragmatics, theoretical semantics and inductive logic, theoretical syntax and algebraic linguistics, methodology of linguistics, cybernetics and linguistics, especially mechanical translation and automatic information analysis. Stresses his rationalistic and critical attitude on the one hand and his compassion and social concern, his warmth and considerateness on the other, a true scholar and a true friend.

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

3946 Grabčenko, A. M.: **Organisation and perspectives in the development of an analytico-synthetic treatment of information in the Republic of the Ukraine. (In Russian).** In: *Nauč.-techn. inform. Ser.* 1 (1977) No. 3, p. 8–13, 17 refs.

3947 Heinrich, G.: **Gegenwärtiger Stand und aktuelle Tendenzen der Sacherschließung in Universalbibliotheken. (Present status and actual tendencies of subject analysis in universal libraries.) (In German).** In: *Die wissenschaftliche Bibliothek 1977. Sacherschließung, Arbeitsplatz, Mitbestimmung, Ausbildung.* 67. Dt. Bibliothekartag in Bremen. Frankfurt: V. Klostermann 1978. p. 174–187

Report about the current status regarding subject indexing, systematic catalogues and classification for the purposes of German universal libraries.