Right at the beginning the first difficulty presents itself, namely that of the basic concepts used: "Knowledge" is to be understood as broadly as possible, whereas the proposition paradigm proposed deserves to be criticized - as we know today - particularly because of its narrowness. The matter becomes problematical when, as cognitive core of knowledge, the "assumed information content" is called upon. Information is regarded as a selection from the alternative quantity of a possibility space. All that is somewhat imprecise, in line with Spinner's habit of giving initial thought to many things rather than formulating them through. Likewise in line with all this, he is most indiscriminate in his selection and use of literature, generally elegantly passing by the real sources of a thought or the standard works. Thus - as becomes clear already on the very first pages - this book is not to be taken seriosly in its details, rather one should ask whether, instead, the overall train of thought contains something new.

New, indeed, might well be his understanding of Knowledge Order. While in the context of information science and documentation Knowledge Ordering was primarily the (physical) ordering of documents or the (virtual) ordering of data for retrieval purposes, Spinner expands this concept to the entirety of the quantity of ordering measures in the field of knowledge which regulate and control the possession of knowledge and its relationship to specific interests, actions and powers. Here, new developments are taking place at present which characterize the transition from "classic" to "modern" knowledge ordering. (1) New knowledge technologies give rise to the formation of a "Cognitive-Technological Complex" which also produces new questions for the research into the consequences of technology. (2) In the "information age" there arise new "knowledge states", new differentiations of varieties of knowledge and new functions of knowledge. (3) Academic knowledge ordering is changing under the conditions of modern knowledge freedoms, giving rise in particular to a number of separations.

The new knowledge order crystallizing out is composed of at least eight different knowledge ordering ways in specific fields: the academic world, that of archives and libraries, the realm of constitutional law, the economy, technology, bureaucracy and the military and police domain as well as the national/international information organization. All these are indicated schematically rather than systematically, sometimes being only hinted at by means of enumerations of selected questions and developments. Spinner concludes from this that today there no longer is any "overall ordering of knowledge", but rather a pluralism of orderings in which knowledge quality zones, knowledge protection zones and knowledge dissemination zones play a part.

The book does not really close whith a final conclusion, but rather with the realization that a systematic treatment of the phenomenon is not possible and that, instead, many questions remain open which are of an interdisciplinary nature or, at least, require contributions from many disciplines for being answered. On some 60 pages, a pertinent appeal is addressed to some 15-20 disciplines and research fields. Besides indexes of persons and subjects, the book furthermore contains some 50 pages of annotated bibliography, which likewise bear out the fact that in his utilization of literature the author has been quite indiscriminate, sometimes even far removing himself from current affairs.

The author's background is certainly of an interdisciplinary nature, although this book is dominated somewhat by the field of legal philosophy. But this, again, is justifiable, as the author draws his concept of order chiefly from the context of policies of order. The phenomenon that, through technological as well as other developments, knowledge has come into a new situation in our time has undoubtedly been the starting point, and this starting point was correctly perceived. That, as is claimed, the proper understanding of a revolutionary situation requires some historic reflection surpassing the rather primitive opposition of classic and modern knowledge ordering is not yet generally accepted, nor that in the discussion we are meanwhile already in the post-modern age, defined among other things by the knowledge problem according to Lyotard (not quoted in Spinner's book, however). The understanding of knowledge techniques and their effects also remains largely inexplained, even though Spinner's approach hails partly from the field of technology assessment.

The book may perhaps be considered a quarry of ideas intended to call attention to the fact that something is happening to knowledge in our time. The "knowledge order" approach undoubtedly does not yet furnish the ideal access, nor does Spinner succeed in endowing his book with sufficient precision, order, compelling train of thought and persuasive power to make us hope for a breakthrough - most readers will be left standing somewhat helpless before this quarry. Nevertheless it is one of the more important books for the problems of knowledge because it at least calls attention to them, without becoming addicted right away to the extravagant over-statements of the Postman's or Moravec's c.s. Gernot Wersig

1 Lyotard, Jean-Francois: Das Postmoderne Wissen. Wien: Graz 1986

2 Moravec, H.: Mind children. Cambridge, MA: 1989

3 Postman, Neil: Wir amüsieren uns zu Tode. Frankfurt/M 1985.

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The Alcohol and Other Drug Thesaurus: A Guide to Concepts and Terminology in Substance Abuse and Addiction. Published by the USA Department of Health and Human Services. First edition 1993, $ 25.-, obtainable from the National Clearinghouse for Alcohol and Drug Information, P.O.Box 2345, Rockville, MD 20847-2345, USA

The Alcohol and Other Drug ("AOD") Thesaurus is conceived for use in the indexing of literature in the pronouncedly interdisciplinary field indicated in the subtitle. It covers - as also shown by the broad arrangement of contents presented below - the fields of medicine, psychology and the social and natural sciences. The contents are arranged as follows:

A: AOD use, abuse, and dependence;
B: AOD substance or product;
C-G: Concepts in natural science biomedicine, and psychology;
H-J: Process and methods of diagnosis, prevention and treatment;
L-O: Concepts in psychosocial and socio-cultural areas and technology;
P-T: Concepts applicable across disciplines;
V: Place, language, religions;
W: Living Organism;
X: Body part;
Y-Z: Chemical substances.

The thesaurus was developed in four years of work under the leadership of Prof. Soergel of the University of Maryland by a working group composed of 13 staff members of the following institutes: National Institute on Alcohol Abuse and Alcoholism, Center for Substance Abuse Preventation, National Institute of Health, and Substance Abuse and Mental Health Services Administration. A group of 10 outside consultants also cooperated. The thesaurus was put to practical testing at 9 institutes.

The concepts for this thesaurus were compiled from 40 individual thesauri in relevant fields. Besides a detailed introduction and a synoptic table the thesaurus comprises some 600 pages in the systematic and some 300 pages in the alphabetic part.

The systematic part of the thesaurus is lucidly arranged according to hierarchical concept relations (genus/species and whole/part). Here and there (where desirable in the interest of a higher order) the subordinate concepts have been grouped together according to the subdivision point of view which governed their formation, as is there the case, e.g., with the chemical substances. This contributes to the clarity of arrangement of the thesaurus, with associative conceptual relationships likewise being thoroughly taken into account.

The arrangement of the AOD Thesaurus follows the usual subdivisions in the various fields. Each descriptor is listed in the thesaurus only at one place (its home place), even if logically several places are possible. At all these other places a reference to the home place will be found. This mitigates the arbitrariness inevitably connected with any linearization of a network of conceptual relations.

The descriptors have been assigned numbers which (similar to the notations of a classification) reflect in large measure the systematic structure of the hierarchy. Gaps have been left open for expansions. Furthermore, the decimal nature of these numbers permits of almost any interpolation that might prove necessary in the future. Thus, ample precautions for a sufficient hospitality of the systematic part to absorb new concepts have been taken.

Every descriptor number is preceded by a digit indicating the hierarchical level on which the descriptor is located. This further facilitates navigation through the systematic part.

Through the descriptor numbers, the acts of indexing and of formulating queries become independent of whether or not the natural and technical languages have already lexicalized an important technical term and introduced a well-fitting term: one simply uses the concept numbers laid down. In this respect the thesaurus strongly resembles a classification system, which also greatly facilitates a good overview of the hierarchical concept relationships.

The major part of the concepts is furnished with scope notes which offer detailed instructions for the use of the descriptors and which here and there are quite similar to precise scientific definitions. In particular it is laid down how a descriptor is to be combined with other descriptors to indicate composite concepts. This promotes the reliability of indexing, with all the attendant advantages for retrieval.

The systematic part is completed by an alphabetic part in which all descriptors are listed together with their descriptor numbers. Through these descriptor numbers, access to the systematic network of concept relations is secured.

Multiword descriptors can be found under any of their meaning-carrying words. In this connection the alphabetic part also contains a large number of nondescriptors (e.g. synonyms and namings of overly specific concepts). References to the relevant descriptors to be used in indexing and retrieval are likewise available.

In seeking for the best descriptors one has two possibilities. If one already has a specific *technical* term in mind for the indexing or the formulation of the query, one will, in a first step, frequently seek access via the alphabetic part of the thesaurus. Then, however, a transition (with the aid of the descriptor number) to the systematic part is always to be recommended, since there one will be referred to related and frequently better fitting descriptors.

In particular one's attention will be called in the systematic part, in any given case, to the more specific concepts which in nearly every case need to be included in the search. Anyone interested in "Health care planning" must, as a querier, also take "National health care planning" into consideration, or, as an indexer, examine whether this latter descriptor is not the better one for characterizing the subject of a text.

Both in the systematic and the alphabetic part one is made aware of the existence of subordinated concepts by the fact that they are either listed in the immediate vicinity of the starting descriptor or that reference is made to them in case they have found their home place elsewhere.

In addition, every concept having at least one subordinated concept is characterized by a "+" sign preceding it. Thus, already in the alphabetic part one is invited to look up this

concept in the systematic part and take the subordinated concepts listed there into consideration. Also, one is made aware there of useful superordinated concepts and associatively related concepts which can either themselves or in the form of related concepts be included in the query formulation.

If, however, one proceeds from a *subject* without already having a quite specific technical term in mind, access will be obtained, in the manner already described, directly via the systematic part, which in an abbreviated form, limited to the top hierarchical levels only, precedes the actual thesaurus.

Thanks to the overview afforded by the AOD Thesaurus over the technical terminology it also offers help in the formulation of queries in full or free texts. as e.g. abstracts. One takes from it the technical terms to be taken into consideration and uses these as alternative search parameters. For this, too, examples are given.

Such a readily overseeable thesaurus structure permits of indexing according to the proven principle of always looking for and using, the descriptors best fitting in any given case. Hence a principle which outside of the libraries and the "controlled vocabularies" regrettably has largely fallen into oblivion. In the AOD Thesaurus, success of a search for the best fitting descriptors should be assured even under the conditions of everyday practice (e.g. under the pressure of time every indexer has to cope with).

Precombination is used only sparingly. Thus the thesaurus is kept readily overseeable and the user's search for the best fitting descriptors in any given case is facilitated. At the same time the possibility is retained of perfecting the thesaurus through the later, supplementary introduction of a syntax. This might prove a most effective compensation for the well-founded dispensation with specificity as resulting from the scarcity of precombinations. For such compensation a thesaurus with only few precombinations is particularly well suited. Thus the AOD Thesaurus possesses a solid foundation for such an expansion, which will possibly prove necessary in the future.

The examples given for indexing and query formulation are instructive and sobering for all those who cherish the illusion that these processes will some day be completely automated. For the requirements imposed on the professional judgment of the indexers and their continually changing background knowledge, are far too great to permit of such automation, with a great deal depending on how thoroughly the problem of the information seeker is investigated by the system expert.

Regarding the formulation of the query it seems evident that the large majority of the information seekers will not wish to dispense with the cooperation of a system expert, for even the handling of the simplest Boolean operators alone confronts the less experienced queriers (probably the majority of the system users) with major difficulties, as experience has shown.

The AOD Thesaurus is suitable as an application model for other fields as well in which similarly high requirements must be imposed on the recall and precision of retrieval now and/or in the future. This is facilitated by the fact that the subject-matter coverage of the thesaurus extends also into other fields on which a need for a highly developed documentation methodology exists.

An obvious pertinent example would be the indexing of books. Here, too, the searcher must not content himself with the starting subject heading coming to his mind; rather, he needs here, too, most complete references as to subject headings that are more or less closely related to the starting subject heading. Here, too, access to the contents might be thoroughly improved if a double index, an alphabetical and a systematical one, were available.

The AOD Thesaurus will permit high quality searches in that it creates the preconditions for specific and reliable indexing. However, in the future, too, the indexers must always be equipped with the required professional knowledge, and they must also be given sufficient time to do their job.

However, the indexing of literature with the aid of this thesaurus will in the initial phase require some perseverance, for there will be no lack of critics who claim that the goals pursued with this thesaurus might be reached in a cheaper and simpler fashion. But it is in the nature of such simplifications that it is only in the initial stage that they appear to be more economical, namely only as long as the large and continuously increasing effort inherently required in primitive systems for carrying out searches deceptively has not yet become apparent, and only as long as the great losses incurred in such searches have not yet become evident. Such non-fulfillable promises have already proved fatal to many a highly developed information system.

Evidently the causes for the failure of the information systems hitherto existing in the difficult and wide field of drug addiction have been clearly recognized in the USA, with the result that, as a corrective measure, the masterpiece of thesaurus-making reviewed here has now been created. The AOD Thesaurus should be taken as an example wherever similary high requirements are imposed, or will be imposed in the future on recall precision in retrieval.

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Beghtol, Claire: The Classification of Fiction. The Development of a System Based on Theoretical Principles. Metuchen, N.J., London: The Scarecrow Press 1994. X, 366p. ISBN 0-8108-2828-6

The subject or content analysis and the classification of fiction pose many problems:

1. It is very difficult to define what a work of fiction is about, to tell if a work of fiction has a single or many themes and to produce adequate content descriptions of novels.