To permit, in the further parts of the book, a discussion along the lines described above, the second chapter presents a brief characterization of each procedure, with the author distinguishing between 3 types of procedures: those based on the natural language of the given document; those using inputs from a controlled vocabulary, and those making use of codings for manipulating the strings. The brevity of the description does not always make the presentation readily understandable; in such cases one must, for a better understanding, have recourse to the more detailed literature referred to.

The next 5 chapters are devoted to the various problems of string indexing; questions of the input of strings, of their components and codings, if any; indexing aids such as manuals, data sheets, etc.; syntax and citation order; references and sorting, and special problems such as the suppression of entries in the leading position.

This presentation is rounded off by a chapter in which criteria for an evaluation and for the selection of string indexing procedures are discussed. This chapter is not only helpful for someone wishing to make a choice among the procedures treated in the book, but also for someone who may be wishing to develop such a procedure him- or herself or to modify it to suit his or her special application field.

The four annexes comprise: a glossary of the technical terms used most frequently in the book; a case study on the use of the NEPHIS procedure, developed by the author, for five-year indexes of the periodical "The Canadian Journal of Information Science"; a brief introduction to the NEPHIS system, and a list of addresses of institutions using the string indexing procedure, through which further information or software may, if necessary, be obtained.

On two pages the author has undertaken the attempt to furnish prognoses on the further development and application of string indexing. In this connection he would regard it as not too good a bet that "online string index displays will be introduced as an option in a commercial database search sevice" (p.188). The reviewer would like to give expression to this hope that this book may contribute to a development whereby this assessment by the author may be proved wrong. It would be most desirable if the problems of and insights yielded by string indexing were taken into account in online display. In addition one would wish that the syntactic qualities present in the more elaborate procedures such as NEPHIS or PRECIS could be utilized in online retrieval so that the author's assessment that "...the applicability of string indexing to online searching is not yet proved" (p.16) need not remain a valid description of the state of things.

In summing up one may conclude that this is a felicitous work - its formal presentation leaves nothing to be desired either - constituting a source of much information for and inspiration to the reader, no matter whether he reads it out of theoretical interest or whether he would like to make use of some string indexing procedure.

Winfried Gödert

.1 This bibliography may be supplemented by the following recent German contributions to the subject:

(1) Riesthuis, G.J.A.: Alphabetische Sachregister und Klassifikation. (Alphabetic subject indexes and classification). In: Die Klassifikation und ihr Umfeld. Proc.10th Ann.Conf.German Classif. Soc., Münster, 18-21 June 1986. Frankfurt: Indeks Verl.1986.p.102-111

(2) Weidemüller, H.U.: Die maschinelle Verarbeitung von RSWK-Ketten in der Deutschen Bibliothek - Datenstruktur und Permutationsverfahren (The machine processing of RSWK chains in the German Library). as in (1), p.95-101

(3) Dreller, J.: Herstellung eines rotierten, vierstufig ausgedruckten Schlagwortregisters auf einem Personalcomputer mit Hilfe von Standartdsoftware (dBASE III Plus, SuperSort, WordStar). Preparation on a personal computer with the aid of standard software of a rotated index printed out in four steps). Nachr.Dok. 38(1987)p.283-291

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JUDGE, A.J.N.(Ed.); Union of International Associations: **Encyclopedia of World Problems and Human Potential**. 2nd ed. München: K.G.Saur Verlag 1986. 1440p.(A4 size), ISBN 3-598-21864-8

The book under review is a revised edition of the "Yearbook of World Problems and Human Potential" published in 1976 on an experimental basis (It has been reviewed by I.Dahlberg in Int.Classif. 4(1977)No.2, p.114-115). In fact it has become a complement to the *Yearbook of International Organizations* in 3 volumes, an important publication of the UIA. As obvious from the title, its theme is the problems faced by the society and the resources and strategies available to solve them - this book though purports to identify and catalogue the problems, yet it has no intention to suggest their solutions.

A living and moving society is always confronted with and many a times besieged by problems. Problems and issues arise from time to time, and some are discovered, identified and in some cases invented. Research, a major activity of the presentday society, is nothing but a problem identifying and solving technique. The solutions to the problems are sought either conceptually or by organizational methods. Big and long-lingering problems are overpopulation, poverty, hunger, mutual distrust among nations, illiteracy, depletion of earth's natural resources, war, and now the fatal weapons endangering life on this planet. This encyclopedia deals with these and myriads of other problems ranging from loneliness to soil erosion, ignorance to maltreatment on the one hand, and human potentials such as human values, cultural heritage, and appropriate technology to solve these problems on the other hand. There are such 10,233 political, social, economic, judicial, racial and psychological problems, and 14,176 human potentials available to answer or tackle these problems. Thus there are a total of 24,409 entries in this source. The concept "problem" has not been defined nor the concept of "human potential", yet the scope of the encyclopedia extends far beyond these titular descriptors. There are also some concepts from science and technology directly concerning social or economic development. In all the encyclopedia identifies the multiplicity of dangers to society and also takes cognisance of the existing organizational, intellectual and personal resources to face and solve such problems.

The basis of selection of these 24,409 entries has not been explicit disclosed, though the range of the topics

is imaginative and disparagedly wide. The problems are mostly those with which the different international organizations are pre-occupied with "whether as focus for their programmes, activities, their research, their protests, their recommendations or as part of their belief systems". Based on about 328 specific communications and techniques to elicit information, contents for entries have been derived from 18,704 international bodies, UN oranizations, international treaties, international periodicals, and many schools of thought. Whenever possible the information has been compiled using extracts from documents of international bodies, and different interpretations are offered. The communication techniques include: advertising, folklore, mantra, lecture, broadcasting, monument, music, map, cartoon, exhibition and so on. Thus it is encyclopedic in coverage, and not in form. Actual sources have not been named, though the international bodies have been systematically named in the sister volume: *Yearbook of International Organizations*. 24th edition 1986/87; nor are the entries initialed.

Chapterization and some of the contents markedly differ from that of the first edition of 1976. That contained 12 Sections of which perhaps five have been included in this volume. Some of the entries have been altogether eliminated while most of them have been drastically reorganized under many newly introduced sections (see below).

The entire book has five parts. The terra firma of the book consists of the entries contained in two parts: This core of the text is preceded by introduction containing a note on how to use the encyclopedia, and its scope, methods and purpose and it is followed by supplements containing comments and many appendices concerning the book.

The two parts mentioned are: (1) World Problems P (429 pages) has three sections denoted mnemonically by letters: PP World Problems (with a description of problems), PQ (only names of problems), and PX (index to both); (2) Human Potential, has six parts denoted mnemonically by the following letters: V Human Values, H Human Development, S Strategies, C Communication, K Integrative Knowledge, T Innovative Techniques.

Each of these sections has been further subdivided alphabetically into subsections, e.g., C Communication, CF Forms of Presentation, CM Metaphors, CS Symbols, CX Communication: Index.

Within a section the subsections are arranged alphabetically. Each subsection begins with a brief introduction. Its entries are arranged at random by serial numbers consisting of four numerical digits. In many of the sections the thus six digited entry numbers are followed by a qualifier denoted by a-g indicating the degree of specificity: "a" being the most fundamental and "g" the most specific. However, the entire code number has no classificatory significance or role except that the indexes refer to these numbers - as the book has not been paginated.

Each entry contains in seriatim the code number, the heading, the description, nature, background, argument, and counterarguments of the concept, and lastly the location of the problem if it specifically pertains to some country.

Some concepts are merely named without any descriptions, as e.g.: KC0200 Musical forms, PP5906 Ideological Confusion. In Section PQ "World Problems", only terms have been listed without any description. However, usually the length of the entry ranges from a full column to ten entries a page in its bi-columned pages. Many of the entries cross refer to the related material. There are about 50,000 such interrelated references.

To the readers of this journal it may be of interest that among the entries definitions are included on classification, indexing, hierarchy, concepts, knowledge, besides some 160 entries on various aspects of information. The entire Section KC "Integrative Concepts" seems to be of much concern to library and information professionals.

No scheme of classification has been followed to arrange the entries, as such a classification cannot be "readily done and satisfactorily done", argues the editor. Excuses for not classifying as explained in chapter YB are the problems of classifying with which Jevons warned us in the 19th century. In the words of the Editor "this book is deliberately organized in such a way as to juxtapose bodies of information which are normally kept apart". Whatever be it, this non-organization is a weak point, and the text cannot be referred to except through the index. However, in Section VP "Value Polarities" the entry numbers are based on an adaptation of the numeric ordering of the concepts in Roget's thesaurus.

It must be mentioned, however, that in Vol.3 of the UIA Yearbook (review see below) a classification scheme has been used to arrange the entries and -together with the organizations and treaties - also the items of this volume on World Problems and Human Values. Most of them belong to the socalled matrix levels 6 - 9 (Innovative change /structure, context, strategy/, Experiential /values, modes of awareness/). This fact somehow contradicts the earlier statement of the editor who apparently has done Vol.3 much later than editing the volume under review. But, who would make use of this additional subject access? Who would know that it is existing at all? It can only be hoped that in later editions of this valuable source the arrangement of Vol.3 could be considered in this volume, too, which has been called "Vol.4" (in Vol.3).

But so far the virtual non-organization makes quite difficult the direct referencing of this book. One is by no means able to locate the desired concepts by directly entering the text and its divisions. For this there are indexes to each section except to the Section PM "Multi-Polarization". VP "Value Type" is a classified index to the Section VP "Value Polarities". These subsection indexes are given in order to obtain a close and better view of a section. Section indexes consist of names, alternative names and keywords. These indexes may also contain terms other than English. In the light of the general index the section indexes are redundant. Had the entries been arranged alphabetically within the sections, the section indexes would not have been necessary at all.

However, most useful and quite indispensable is the general and all cumulative index in Section Z. Here the terms are arranged word-by-word. Each index term refers to the 6-digit code number presented in an unusual way at the left side of the index term - perhaps for

symmetry in printing. In this index two types of index terms have been mixed together into one sequence: Terms printed in bold face refer to the concepts/terms from the text. Some synonymous terms have also been included. The second type of entries are significant key words taken out of the actual entry headings. These - printed in italics - are followed by the remainder words for the name of the index entry. For example: PP 2330 *Development: Animal worship barrier* for "Animal worship as a barrier to development". This three-columns-a-page-index contains 75,000 entries in all.

It is a policy of the Editor to present all viewpoints in a balanced account. The themes here and there are illustrated by symbolic line-drawings mostly of the hawk and the dove (well done by Tim Caswell). Dove and hawk symbolise "the need for each to counteract the excesses of the others in order to maintain a healthy environment for both". Sometimes the text is dotted with idioms, epigrams, proverbs to substantiate the argument. Whoever may recollect from the first edition how most interestingly and aptly the 12 Sections have been interrelated with each other and depicted by corresponding lines in a 12-sided circular will miss this here. Instead such a 12-sided circular has been designed on the cover page as well as on the back cover. Into the latter Chinese symbols were drawn which have also been taken over onto the 12-sided circular of the front cover on top of the apparently interconnecting lines. In between them some more lines become visible apparently breaking tangentially at a smaller 12-sided circular in the middle of the big one. The author explains:

"The Chinese symbol at the back of the volume represents a "crisis" or a "critical turning point". It is composed of an upper character representing "danger" and a lower character associated with the notions of "organic complexity", "intricate systems", "hidden opportunity" and "natural evolutionary change". This symbol is reproduced here because the Encyclopedia of World Problems and Human Potential also attempts to embody these seemingly incompatible dimensions in an equally positive manner. It therefore identifies the multiplicity of dangers to society, but it also highlights the interlocking complexity of the existing organizational, intellectual and personal resources. This contains the concealed opportunity for creative change and the opportunity for appropriate response to the crisis of crises".

Overviewing: This is an eminently readable book gathering information from different sources by a team well coordinated by Anthony JUDGE. The description is transparently clear, concise, pithy and balanced. In some cases great authors such as Francis Bacon, and Edmund Burke have been quoted. (Much regretfully no index to such quoted authors has been provided.)

The book may find varied audiences, such as researchers, students, writers, speakers, newsmen, decision makers and politicians, and even the dilettante reader. It is a novel work which is absorbing and thought provoking to read. To an individual's library it could be an assett, and for social science libraries it is an essential multidisciplinary source.

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JUDGE, A.J.N. (Coord.); Union of International Associations: **Global Action Networks. Classified Directory by Subject and Region.** 4th ed. (Vol.3 of Yearbook of International Organizations). München: K.G.Saur Verlag 1986/87. approx.1500 p., ISBN 3-598-21872-9

The first edition of this book was published in 1983, and since then it is published yearly. The 5th edition, 1987 is already available. This third volume of the Yearbook is a subject guide to some 25,000 international bodies, including 1418 multilateral treaties. It also indexes the *Problems, Values, and Strategies*, from the *Encyclopedia of World Problems...* (UIA, K.G.Saur 1986) (see review above). The aim is to group organizations with common goals and activities. An organization entry may appear under several categories as appropriate. Complete descriptions of these organizations are given in volume 1 of the Yearbook: *Organization, Description and Index* - now in its 24th edition (1987).

The book contains an introduction in French and English, four main sections and nine appendices, some of the latter both in French and English. The four main sections W-Z are meant to list the organizations and entries on problems by the following approaches:

| W | Subjects | Y | Regions |
| X | Subject combinations | Z | Organization types |

In essence the section W is the core part of the book, the rest of the sections are alternative approaches to it, examples to follow. It lists associations and problems grouped into 1117 major classes, called categories in this volume. These had been formed through extracting by computer all significant keywords from the names of the organizations as well as from the topics in the Encyclopedia. By this some 20,000 words were identified and related to the major classes.

Each class is denoted by a four digit number preceded by one letter denoting the section, e.g. W3310 in Section W. Within a section the classes are arranged in the numerical order of A.J.N.Judge's decimal classification scheme. This scheme is presented and explained in the introductory part and in Appendix 6 in more detail. It is based on a functional view of things, hence called "Functional Classification". (A less extended version of Appendix 6 was published in Int.Classif.11(1984)No.2, p.69-76 and No.3, p.139-150).

A first approach to this scheme was developed by A.J.N.Judge on the basis of I.Dahlberg's Information Coding Classification (ICC). It was modified thereafter in view of new ideas which came up considering the periodic classification of chemical elements as well as through experience made with the subjects to which organizations had been devoted. Thus concepts like "Principles", "Purpose", "Solidarity", "Idealism", "Harmony", etc. could all be classified on the second level, and been given a two-digit number. The entire classification scheme is displayed in matrix form with the "Matrix levels":

0	Cosmosphere/Geosphere
1	Biosphere
2	Social action (structure)
3	Social action (context)
4	Concept formation (structure)
5	Concept formation (context)
6	Innovative change (structure)
7	Innovative change (context, strategy)
8	Experiential (values)
9	Experiential (Modes of awareness)

as against the "Matrix Columns":

| 0 | Formal pre-conditions |
| 1 | Domain definition |