

Social Science Information Languages: A Comparative Analysis*

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Preliminary report of an analysis of some 60 existing information languages of the social sciences, especially with respect to the distribution of these languages within the social sciences. Purpose and empirical method used are discussed. For each of 41 subject fields the number of terms in significant information languages are given. Suggestions for further investigations and for the preparation of a General Indexing Language in the social sciences are made. Annex A lists the fields in English and French, Annex B the 60 information languages included in the analysis. I.C.

1. Purpose

The objectives, the framework and the limits within which the analysis reported here was conducted are as follows:

11. It was necessary to start with a working definition of the social sciences. In order not to reinvent the wheel, we started from a Unesco document, i.e. the recommendation concerning the international standardization of statistics on science and technology, adopted by the General Conference at its 20th session on 28 Nov. 1978. This document groups the sciences into six categories, and within the group "social sciences" enumerates:

"anthropology (social and cultural) and ethnology, demography, economics, education and training, geography (human, economic and social), law, linguistics (excluding language studies based on set texts), management, political sciences, psychology, sociology, organization and methods, miscellaneous social sciences and interdisciplinary, methodological and historical S & T activities relating to subjects in this group."

12. Within the broad field of knowledge, we sought to identify the main information languages currently in use. The term "information language" refers to any linguistic tool used to describe specialized information, and hence for analyzing and indexing documents, for storing and retrieving information, for building classified files, and for operating documentation systems. It includes such specific tools as general or specialized classification schemes, thesauri, specialized nomenclatures, descriptor or subject heading lists, bibliographical indexes and others.

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13. We were able to identify several information languages. Some of them were prepared as pieces of research, and published as independent books. But a greater number are operationally connected with existing information services, bibliographical bulletins, yearbooks, or data bases – whether separately available or constituting a part of the main publication. This fact amounts for the uneven distribution of these tools among the various fields constituting the social sciences. Which were typically built to meet concrete needs whenever these arose, not in accordance with any preconceived overall scheme. The resulting distribution became the object of the present analysis.

2. Method

Following an empirical method, we first selected the main information languages which covered, if possible, the whole area of the social sciences or one or several fields within this area. As far as possible, we concentrated on languages for international use, i.e. those which are employed in more than one country or one cultural zone, and for indexing documents originating in various idioms. However, when such an international language was not known, we tried to identify a language covering the given field even if it was known or used in only one country.

21. The list established by this means numbers already more than fifty information languages and it is kept open for further expansion. Moreover, it comprises widely different languages, and for this reason they are not strictly comparable. Some are encyclopaedic, attempting to cover the whole universe of knowledge, such as the Unesco Thesaurus, the Spines Thesaurus, and the Broad System of Ordering; in these cases each field is defined negatively, including what is excluded in the neighbour fields. Other languages are limited to one field. But they typically show a tendency to define the field very broadly, even in an "imperialistic" way, including fringe and border areas which could legitimately also be claimed by another special language. Other tools are established a posteriori, as are the indexes of secondary services, which tend always to be broadly inclusive, in order not to isolate the speciality concerned from its natural environment. This results in the inclusion of many terms which clearly pertain to other fields.

22. Acknowledging this diversity, we nevertheless tried to draw a map showing how the various social sciences areas are covered by appropriate information languages. This was done in two steps. The first step involved an analysis of each of the selected language so as to elucidate its structure and to identify its main sub-fields, as represented by semantic groups. Then we identified the internal structure of each group by counting its descriptors and discovering the different hierarchical levels used within each set of them.

23. The second step aimed to derive from the descriptor sets discovered in each information language an integrated list of specific subject fields within the social sciences. This list, reproduced as Annex A to this report, may be considered as an elaboration of the Unesco list given in section 11 as our starting point. Although it is not systematically established, it does take into account, empirically, the established information systems and secondary publications that are devoted to given prob-

lems or disciplines. This fact accounts for the list's heterogeneity. The areas enumerated are not mutually exclusive. For instance, "international relations" is considered by many scholars to be a part of "political science", or of "political philosophy". "Management" is considered in some cases as belonging to "administrative sciences" and it may also be covered by the broad term, "economics". There is in our tables, therefore, a certain amount of duplication.

24. Another difficulty arises from the fact that our categories are not homogeneous. Many of them are the recognized scientific disciplines that are traditionally represented in the academic community and made visible by university departments, research centers, congresses and journals. Others are thematic and designate subjects of interest to a particular group or the targets of organized action, such as "family planning", "population policy", "social welfare". They correspond to mission-oriented information services. There is clearly a great deal of overlapping between these two types of concepts, which express different views of the same complex reality. Typically the same social reality may be designated by different terms from each of the two sets, depending on the point of view. This is not redundancy but results from the multidimensionality of the conceptual fields of the social sciences.

3. Findings

As a result we established the series of tables which constitute the main part of this paper. They are offered not as a final result, but as a tentative output to be checked and discussed. If it provides a basis for further thinking and elaboration of more comprehensive languages, the same method will be used to complete and refine our data to a given depth.

31. For some of the areas appearing in the list (Annex A), the table indicates the main information languages which give its coverage. These information languages are represented by a code referring to the list given in Annex B. For each of these information languages the approximate number of descriptors pertaining to the given area are indicated as well as the mean number of hierarchical levels on which these descriptors are distributed. During the first step of the analysis we also took into account the non-descriptors or so-called "forbidden terms" (synonyms or quasi-synonyms). The figures for them are available for further checking; but to avoid complicating the present tables, these figures are not given here.

32. For reasons explained in section 2 of this paper, it sometimes proved difficult to identify unambiguously specific fields in some of the languages and more or less arbitrary decisions had to be made. Another analyst might well interpret the conceptual context of the same area in a different way. The meaning given to each area, therefore, has to be discussed and criticized, as well as the selection of the areas.

33. The figures given in the tables reveal extreme variations, which must be interpreted cautiously. An area in a different way. The meaning given to each area, information language A can appear in language B as an attribute of minor importance. There are other differentiating factors, for instance, a highly pre-coordinated language makes us of more descriptors than a language

covering the same concepts with a post-coordinating device.

34. We have also tried to isolate what is mere nomenclature, i.e. the homogeneous terms with the same logical status, designating individual units within a singly species: e.g. names of countries, of political parties, etc. Such nomenclatures may either appear as auxiliary tables ("common auxiliaries of language") in UDC, "time and place facets" in BSO) or constitute a section or chapter in a language ("countries and regions" in the Macrothesaurus). They may also be scattered throughout a lexicon, as are the names of ethnic groups in the subject index to the International Bibliography of Social and Cultural Anthropology; in such not infrequent instances, we could not always make the intended partition. The nomenclatures we were able to identify are grouped at the end of the list of areas in Annex A.

35. Section 4 illustrates the diversity of treatment given by several information languages to the same concepts as a result of their differing frames of reference. For a few selected non-technical terms, we identified the languages which were expected to include them. We then checked whether the term was present or not, in each language. If so, we described the semantic environment, the hierarchical level, the number of other descriptors at the same level, and the number of other descriptors treated as "specific" with reference to the first one. We think this kind of micro-analysis gives a better insight into the internal structure and the rationale of the respective information languages. If it is considered useful, it can be applied to another sample of terms.

Tables: Comparative Coverage, by Area*

Administrative Science	
MACST	30 Descr. (3 levels)
UNT	100 Descr. (6 levels) (excl. Management)
BSO	10 Descr. (2 levels)
BSAI	9 700 Descr. (3 levels)
BIPI	45 Descr. (3 levels)
Agriculture	
MACST	300 Descr. (4 levels)
UNT	60 Descr. (5 levels)
BSO	100 Descr. (6 levels)
Anthropology, social / cultural	
MACST	
UNT	24 Descr. (4 levels)
BSO	18 Descr. (3 levels)
BIAI	1 200 Descr. (2 levels) (excl. ethnic and geographical names)
Biology, Health, Medicine (social)	
MACST	200 Descr. (3 levels)
UNT	not isolable
BSO	not isolable
Civil Law	
MACST	20 Descr. (3 levels)
UNT	25 Descr. (5 levels)
BSO	22 Descr. (4 levels)
Communication	
MACST	18 Descr. (4 levels)
UNT	480 Descr. (8 levels)
BSO	56 Descr. (4 levels)
TMCST	1 900 Descr. (5 levels)
KESSC	20 Descr. (3 levels)
Criminology	
MACST	1 Descr.
UNT	46 Descr. (5 levels)
BSO	2 Descr. (2 levels)

* Regarding the codes used to abbreviate the information languages, see introduction of Annex 2

Culture		Information science, documentation		Psychology	
MACST	30 Descr. (2 levels)	MACST	120 Descr. (5 levels)	MACST	5 Descr. (2 levels)
UNT	180 Descr. (7 levels)	UNT	750 Descr. (10 levels)	UNT	175 Descr. (7 levels)
	(excl. Cultural anthropology)	BSO	75 Descr. (6 levels)	BSO	60 Descr. (4 levels)
BSO	not isolated	DOCSD	2 350 Descr. (3 levels)	TPSST	3 650 Descr. (4 levels)
TCDST	1 600 Descr. (3 levels)	POLST	85 Descr. (6 levels)		
TDCST	3 000 Descr. (4 levels)	TSIST	860 Descr. (5 levels)	Public finance	
Economic and Social Development		International relations		MACST	130 Descr. (4 levels)
MACST	1 000 Descr. (4 levels)	MACST	20 Descr. (4 levels)	UNT	80 Descr. (5 levels)
UNT	70 Descr. (6 levels)	UNT	75 Descr. (6 levels)	BSO	6 Descr. (3 levels)
BSO	2 Descr.	BSO	12 Descr. (3 levels)	POLST	40 Descr. (7 levels)
BIEI	35 Descr. (2 levels)	BIPI	230 Descr. (2 levels)	Public Law	
Economic and Social Policy		CINSC	1 280 Descr. (4 levels)	MACST	
MACST	48 Descr. (2 levels)	Labour, Manpower		UNT	25 Descr. (5 levels)
UNT	40 Descr. (7 levels)	MACST	250 Descr.	BSO	14 Descr. (4 levels)
ILOST	82 Descr. (3 levels)	UNT	140 Descr. (6 levels)	POLST	65 Descr. (4 levels)
BSO	not isolated	BSO	10 Descr. (2 levels)	Religion	
Economics		ILOST	2 250 Descr. (5 levels)	MACST	22 Descr. (2 levels)
MACST	800 Descr. (4 levels)	Linguistics		UNT	90 Descr. (4 levels)
UNT	270 Descr. (6 levels)	MACST	11 Descr. (2 levels)	BSO	72 Descr. (4 levels)
BSO	90 Descr. (5 levels)	UNT	80 Descr. (5 levels)	POLST	50 Descr. (5 levels)
BIEI	2 000 Descr. (3 levels)	BSO	30 Descr. (3 levels)	Research and methodology	
CSEST	1 800 Descr. (7 levels)	JAZST	1 700 Descr. (5 levels)	MACST	64 Descr. (3 levels)
TSPSC	600 Descr. (2 levels)	Management		UNT	60 Descr. (5 levels)
CSPST	700 Descr. (5 levels)	MACST	80 Descr. (2 levels)	BSO	20 Descr. (4 levels)
Education		UNT	140 Descr. (6 levels)	POLST	420 Descr. (6 levels)
MACST	90 Descr. (4 levels)	BSO	35 Descr. (3 levels)	SPTST	230 Descr. (4 levels)
UNT	720 Descr. (7 levels)	BIEI	30 Descr. (3 levels)	Rural problems	
BSO	46 Descr. (5 levels)	TMEST	1 580 Descr. (3 levels)	MACST	12 Descr. (3 levels)
TEDST	2 200 Descr. (3 levels)	Migrations		UNT	10 Descr. (5 levels)
EUTST	2 040 Descr. (2 levels)	MACST	21 Descr. (4 levels)	BSO	2 Descr.
IETST	1 800 Descr. (2 levels)	UNT	13 Descr. (3 levels)	DATSC	56 Descr. (2 levels)
ERCST	4 600 Descr. (2 levels)	BSO	1 Descr.	TGRST	465 Descr. (4 levels)
Energy		TPOST	52 Descr. (4 levels)	Science and technology, social aspects	
MACST	60 Descr. (3 levels)	Political (social) philosophy		MACST	12 Descr. (2 levels)
UNT	15 Descr. (3 levels)	MACST	23 Descr. (2 levels)	UNT	not isolable
BSO	1 Descr.	UNT	30 Descr. (4 levels)	BSO	not isolable
EENST	2 600 Descr. (5 levels)	BSO	2 Descr.	Science of science	
Environment, Ecology, Natural resources		POLST	580 Descr. (6 levels)	UNT	50 Descr. (5 levels)
MACST	130 Descr. (5 levels)	Political science		BSO	8 Descr. (2 levels)
UNT	132 Descr. (7 levels)	MACST	37 Descr. (3 levels)	Social welfare	
BSO	28 Descr. (3 levels)	UNT	280 Descr. (6 levels)	MACST	16 Descr. (2 levels)
Geography		BSO	60 Descr. (5 levels)	UNT	32 Descr. (5 levels)
MACST	30 Descr. (3 levels)	BIPI	1 000 Descr. (2 levels)	BSO	44 Descr. (4 levels)
UNT	16 Descr. (3 levels)	(excl. Country names incl. Int. Rel.)		Sociology	
BSO	20 Descr. (3 levels)	POLST	5 700 Descr. (6 levels)	MACST	75 Descr. (3 levels)
TGCST	485 Descr. (5 levels)	TSPST	500 Descr. (2 levels)	UNT	410 Descr. (6 levels)
TGIST	350 Descr. (4 levels)	CSPSC	600 Descr. (5 levels)	BSO	40 Descr. (5 levels)
TGPST	450 Descr. (5 levels)	KESSC	70 Descr. (3 levels)	BISI	2 000 Descr. (3 levels)
TGRST	465 Descr. (4 levels)	Population policy, Family planning		TSOST	
TGUST	430 Descr. (5 levels)	MACST	16 Descr. (4 levels)	TSRST	5 500 Descr. (6 levels)
BGI	3 000 Descr. (3 levels)	UNT	8 Descr. (3 levels)	Trade	
History		BSO		MACST	25 Descr. (3 levels)
MACST	5 Descr. (2 levels)	TPOST	140 Descr. (5 levels)	UNT	36 Descr. (5 levels)
UNT	40 Descr. (4 levels)	PFTST	800 Descr. (2 levels)	BSO	10 Descr. (3 levels)
BSO	20 Descr. (3 levels)	PFCST	1 200 Descr. (7 levels)	TICSC	225 Descr. (3 levels)
Human rights		FMTST	770 Descr. (5 levels)	TGCST	485 Descr. (5 levels)
MACST	28 Descr. (3 levels)	CPFSC	450 Descr. (7 levels)	Transport	
UNT	80 Descr. (4 levels)	Population problems, Demography		MCAST	82 Descr. (3 levels)
BSO	8 Descr. (3 levels)	MACST	75 Descr. (3 levels)	UNT	52 Descr. (6 levels)
Industry		UNT	92 Descr. (5 levels)	BSO	156 Descr. (6 levels)
MACST	62 Descr. (4 levels)	BSO	16 Descr. (3 levels)	Urban problems, housing	
UNT	25 Descr. (4 levels)	TPOST	500 Descr. (3 levels)	MACST	40 Descr. (3 levels)
BSO	not isolated	TGPST	450 Descr. (5 levels)	UNT	56 Descr. (5 levels)
TIDST	750 Descr. (2 levels)	Psychology		BSO	not isolable
TGIST	350 Descr. (4 levels)	MACST	5 Descr. (2 levels)	DATSC	80 Descr. (2 levels)
		UNT	175 Descr. (7 levels)	TGUST	430 Descr. (5 levels)
		BSO	60 Descr. (4 levels)		
		TPSST	3 650 Descr. (4 levels)		
		Public finance			
		MACST	130 Descr. (4 levels)		
		UNT	80 Descr. (5 levels)		
		BSO	6 Descr. (3 levels)		
		POLST	40 Descr. (7 levels)		
		Public Law			
		MACST			
		UNT	25 Descr. (5 levels)		
		BSO	14 Descr. (4 levels)		
		POLST	65 Descr. (4 levels)		
		Religion			
		MACST	22 Descr. (2 levels)		
		UNT	90 Descr. (4 levels)		
		BSO	72 Descr. (4 levels)		
		POLST	50 Descr. (5 levels)		
		Research and methodology			
		MACST	64 Descr. (3 levels)		
		UNT	60 Descr. (5 levels)		
		BSO	20 Descr. (4 levels)		
		POLST	420 Descr. (6 levels)		
		SPTST	230 Descr. (4 levels)		
		Rural problems			
		MACST	12 Descr. (3 levels)		
		UNT	10 Descr. (5 levels)		
		BSO	2 Descr.		
		DATSC	56 Descr. (2 levels)		
		TGRST	465 Descr. (4 levels)		
		Science and technology, social aspects			
		MACST	12 Descr. (2 levels)		
		UNT	not isolable		
		BSO	not isolable		
		Science of science			
		UNT	50 Descr. (5 levels)		
		BSO	8 Descr. (2 levels)		
		Social welfare			
		MACST	16 Descr. (2 levels)		
		UNT	32 Descr. (5 levels)		
		BSO	44 Descr. (4 levels)		
		Sociology			
		MACST	75 Descr. (3 levels)		
		UNT	410 Descr. (6 levels)		
		BSO	40 Descr. (5 levels)		
		BISI	2 000 Descr. (3 levels)		
		TSOST			
		TSRST	5 500 Descr. (6 levels)		
		Trade			
		MACST	25 Descr. (3 levels)		
		UNT	36 Descr. (5 levels)		
		BSO	10 Descr. (3 levels)		
		TICSC	225 Descr. (3 levels)		
		TGCST	485 Descr. (5 levels)		
		Transport			
		MCAST	82 Descr. (3 levels)		
		UNT	52 Descr. (6 levels)		
		BSO	156 Descr. (6 levels)		
		Urban problems, housing			
		MACST	40 Descr. (3 levels)		
		UNT	56 Descr. (5 levels)		
		BSO	not isolable		
		DATSC	80 Descr. (2 levels)		
		TGUST	430 Descr. (5 levels)		

4. Illustrative cases

It is not enough to know that a given area is present in one language only at the unique descriptor level at the same time that it is covered in another language by a whole class of 50 or 100 descriptors distributed along 4 or 6 hierarchical levels. One has to elucidate whether in such cases the meaning of the terms remains the same in differing contexts, or whether different sets of terms cover the same concept.

41. This may be accomplished only by an analysis at the individual descriptor level. The precise methodology for such an analysis has yet to be established. Here are some examples, taken from areas that are not too technical: population studies and the sociology of education.

42. *Marriage* – The name of this social institution does not appear in a very specialized and technical language such as the *Population / Fertility Control thesaurus*; but in the *Fertility modification thesaurus*, which covers more or less the same field, it is included in the term “legal marriage”, at the 3d hierarchical level, and without further subdivision. Even in the classification schema of the leading bibliographical journal in demography, *Population Index*, it only serves as the title of one heading (jointly with “Divorce”) at the 2d level. But the term receives greater emphasis in languages that are more social science oriented. In the *Classification de la population et de la planification familiale*, it appears at the 4th level (jointly with “Nuptiality”), being further subdivided into 3 categories and 5 subcategories. In the *Population multilingual thesaurus* it is one of 10 terms in the group “Mate selection, wedding”, covering not less than 11 specific terms, alongside the groups “Nuptiality” (4 terms), “Type of marriage” (23 terms), “Marital union” (4 terms), “Separation, Divorce” (19 terms). In the *Macrothesaurus* it stands with 9 other terms in a group at the 3d level. In the *Unesco Thesaurus*, “Marriage and Family” constitutes a heading under “Sociology”, at the same first level as “Demography” or “Social problems”; “marriage” itself being divided along three facets into 13 specific descriptors and cross-referenced to 3 related terms. So the concept appears more relevant from a sociological than from a merely demographical point of view.

43. *Mortality*. This concept receives a more extensive treatment than the previous one in the thesauri dealing with fertility control; in both it appears at the 5th level, covering 2 specific terms in one case, 4 in the other one. In the same way it receives 7 subdivisions in the *Classification de la population*. . . In the *Population multilingual thesaurus*, it accounts for a grouping of 45 descriptors, at the second hierarchical level. In *Population index* it constitutes a whole chapter, comprising 7 sections. Conversely it receives less attention in the languages covering much broader fields. In the *Macrothesaurus* it is covered by a set of 8 descriptors at the 3d level; in the *Unesco thesaurus*, the descriptor appears as a “Population event” at the 5th level, with only “Death rate” as a specific term. And in the more specialized *Thesaurus for information processing in sociology*, the relevant group of only 7 descriptors is at the 3d level. So it appears that this concept is present in every relevant language with a rather similar neighbourhood, but receiving differing emphases.

44. *Equal opportunity*. This term is currently used by sociologists as well as by educationists when dealing with the conditions of access to education. It is found even in the more general documentary languages. In the *Unesco thesaurus* the term receives a slightly broader meaning, being a subdivision of “Right to non-discrimination”, one of the many rights enumerated in the chapter “Human rights”. The concept appears again in the chapter dedicated to “Educational policy”, under the quasi-synonymous term “Equal education”, the meaning of which is made more precise by its place under “Educational opportunities”. In the *Macrothesaurus* the descriptor “Equal opportunity” is classified into the section of “Human rights” and covers two more specific descriptors, “Educational opportunities” and “Employment opportunities”; but the concept is missing in the chapter “Education”. The same pattern is reproduced in the *ILO Thesaurus*.

45. The same descriptor appears in most of the thesauri for education: in the *Eudised Thesaurus*, related to “Educational opportunities”, in the sub-chapter “Educational sociology – Social system”; in the *Thesaurus of ERIC Descriptors*, related to “Employment opportunities”, in the section “government”, when “Educational opportunities” is one of 150 descriptors in the section “Education”; in the *Tesoro Colombiano de la Educacion* (Bogota, 1978), within the same context. It is given the alternative wording “Educational opportunity” in the *Information Retrieval Thesaurus of Education Terms*, where it is among 27 descriptors in the sub-facet “Probation, Social conditions” of the facet “Social”; in the *London Education Classification* under the sub-facet “Sociology of education” of the main facet “Foundations, Principles, Organisation”. This same wording also appears as one of 7 descriptors at the 3d hierarchical level in the *Thesaurus for Information Processing in Sociology*, under “Educational system, Educational policy”.

46. This is an instance where there is a general agreement in various constituencies about a concept, even if there are slight differences among various languages in the choice of the terms and the relationships established between neighbour terms.

5. Conclusion

Some suggestions may now be derived from the two approaches illustrated above.

51. All areas of the social sciences seem to be covered, even at differing depths, by existing information languages. When a systematically built information language does not exist, the indexes to some current bibliographic publications may serve the same purpose.

52. It would be useful, after completing and refining the list of fields proposed in Annex A, to identify the main secondary services for the areas not yet covered, and to scrutinize their indexes.

53. None of the existing information languages, either general or specialized, offers a firm ground for the building of a General Indexing Language (GIL) for all of the social sciences, covering both the many disciplines and the special fields on which social scientists focus their attention.

54. As a basis for the preparation of a GIL, it would be advisable

(a) to select a limited number of existing languages that offer the best and most sensible coverage of the various fields identified above, and

(b) to compile the descriptors contained in each of these languages, care being given to preserve all the hierarchical and other relations of each descriptor where applicable.

55. In order to make possible from the start a multi-lingual GIL, this compilation should be made in parallel in the main Unesco languages (English, French, Spanish. . .). The same warning applies equally to the following steps in the procedure.

56. The next step would be to check for consistency all these descriptors, in order to identify the cases where the same term is used for different concepts in differing contexts, or where different terms clearly designate the same concept. All these problems ought to be referred to small consultative groups of experts from the areas concerned.

57. The same consultants would be asked to propose a hierarchy of the relevant terms, in order to allocate a level to each of them. After comparison of these hierarchies, a decision would have to be made by common agreement on the levels to be included in the GIL, and those which would be left for treatment in specific thesauri and other information languages.

58. In order to manage all the data involved, and to continuously update the information about each scrutinized term, its conceptual environment, its synonyms or quasi-synonyms, and the partial decisions made, it would be necessary to establish an automated descriptor bank. Even after compiling a GIL, such a bank would still prove necessary in order to monitor and manage the new language when it is used, especially to accommodate continuous change, while preserving compatibility with the information languages connected with the descriptor bank.

59. Such a work should be entrusted to a team which would ensure the necessary continuity, and be located in a suitable institution allowing for centralization of the technical processing. This team would be ultimately responsible for the drafting of the GIL, including the choice and the structure of descriptors.

Annex A

SOCIAL SCIENCE AREAS

Administrative science = Science administrative
Agriculture = Agriculture
Anthropology, social / cultural = Ethnologie
Biology, Health, Medicine = Biologie, Santé, Médecine
Civil law = Droit privé
Communication = Communication
Criminology = Criminologie
Culture = Culture
Economic and social development = Développement économique et social
Economic and social policy = Politique économique et sociale
Economics = Science économique
Education = Education
Energy = Energie
Environment, Ecology = Environnement, Ecologie
Geography = Géographie
History = Histoire
Human rights = Droits de l'homme
Industry = Industrie
Information science, documentation = Science de l'information et documentation
International relations = Relations internationales
Labour, Manpower = Travail, Main d'œuvre

Linguistics = Linguistique
Management = Gestion
Migrations = Migrations
Political Science = Science politique
Political (social) philosophy = Philosophie politique (sociale)
Population policy, Family planning = Politique démographique, Planification de la famille
Population problems, Demography = Problèmes de population, Démographie
Psychology = Psychologie
Public finance = Finances publiques
Public law = Droit public
Religion = Religion
Research and methodology = Recherche et méthodologie
Rural problems = Problèmes ruraux
Science and technology, social aspects = Science et technologie, aspects sociaux
Science of science = Scientologie
Social welfare = Services sociaux
Sociology = Sociologie
Trade = Commerce
Transport = Transport
Urban problems = Problèmes urbains

NOMENCLATURES

Agricultural products = Produits agricoles
Ethnic groups = Groupes ethniques
Geopolitical units = Unités géographiques
Industrial activities = Activités industrielles
International organizations = Organisations internationales
Jobs = Emplois
Languages = Langues

Annex B

LIST OF LANGUAGES COVERED

Excluded from the list are the great encyclopaedic library classification schemes, such as Dewey or Library of Congress, which are intended for the classification of books and not for information retrieval.

Excluded is also the Universal Decimal Classification (UDC), of which more or less complete editions were published in a number of languages. But these editions are clearly out of date, especially as far as the social sciences are concerned, and a complete revision (going very far into the structure itself of the social science sections) is currently under way. During this transitional period an analysis would be meaningless.

The coding follows the rules for universal and special classification systems, universal and special thesauri as well as universal and special dictionaries as given in Intern. Classificat. 5 (1978) No. 2, p. 91–92. In accordance with these rules, the different indexes received a four-letter code ending with "I".

BGII Bibliographie géographique internationale : Index / CNRS, Intergeo.-Quarterly
BIAI International Bibliography of Social and Cultural Anthropology : Index / ICSSD. – Annual
BIEI International Bibliography of Economics : Index / ICSSD. Annual
BIPI International Bibliography of Political Science : Index / ICSSD. Annual
BISI International Bibliography of Sociology : Index / ICSSD. Annual
BSAI Bulletin signalétique – Bibliographie Internationale de Science administrative / CDSH (CNRS).
BSDT Bulletin signalétique – Sciences de l'Education : The-saurus / CDSH (CNRS).
BSEI Bulletin signalétique – Ethnologie : Index / CDSH (CNRS).
BSLI Bulletin signalétique – Sciences du langage : Index / CDSH (CNRS)
BSO Broad System of Ordering (BSO), Schedule and Index / Unesco, Division of General Information Programme (PGI). 1978
BSRI Bulletin signalétique – Histoire et Sciences des Reli-gions : Index / CDSH (CNRS)
BSSI Bulletin signalétique – Sociologie : Index / CDSH (CNRS)

- BSTI Bulletin signalétique – Histoire des Sciences et des Techniques : Index / CDSH (CNRS)
- CINSC Classification for International Law and Relations / Kurt SCHWERIN. New York: Oceana Publications, 1969.
- CPFSC Classification de la population et de la Planification familiale / Fédération Internationale pour le Planning familial, par Jacqueline P. FORGET. London: the Federation, 1975
- CSESC Plan de Classification Décimale de la Documentation Statistique et Economique / INSEE. Paris: INSEE, 1976.
- CSPSC Plan de Classification / Centre de Documentation contemporaine, Fondation nationale des sciences politiques. Paris: 11ème éd. juin 1975, 85 p. + addenda, irrég.
- DATSC Code documentaire / Délégation à l'Aménagement du Territoire et à l'Action régionale. Paris, 1967.
- DOCSD Terminology of Documentation / G. WERSIG: U. NEVELING. Paris, 1976.
- EENST Thesaurus Economie de l'Energie / Chambre syndicale de la recherche et de la production du pétrole et du gaz naturel; Réseau d'information sur l'économie de l'énergie. Paris: Ed. Technip, 1974.
- EMFI Emploi et Formation: Index / CDSH (CNRS),
- ERCST Thesaurus of ERIC descriptors. New York: CCM Information Corp. 1972.
- EUTST EUDISED – Thesaurus multilingue pour le Traitement de l'Information en Education / Conseil de l'Europe. Paris, La Haye: Mouton, 1979.
- FMTST Fertility Modifications Thesaurus. New York: Columbia University, 1973.
- IETST UNESCO: IBE Education Thesaurus / International Bureau of Education. – 4th ed. in preparation.
- ILOST ILO Thesaurus: Labour, Employment and Training Terminology / International Labour Organisation (ILO). Bureau of Information Systems, Central Library and Documentation Branch. 1978.
- ISJSC Informatique et Sciences Juridiques : Plan de Classification. / CDSH (CNRS).
- JAZST Tezaurus Informacionno-Poiskovyj po Jazykoznaniju, INION ANSSSR. Moskva, 1977.
- KESSC Klassifikationsschema zur Erfassung von Inhalt, Form und Funktion von Fragen aus Umfragen der Empirischen Sozialforschung. Zentralarchiv für Empirische Sozialforschung, Universität zu Köln. Jan. 1970.
- MACST Macrothesaurus – Economic and Social Development. OCDE Executive Directorate. Dec. 1978.
- OSTST CIS Thesaurus – Occupational Safety and Health. International Occupational Safety and Health Information Centre. 1976.
- PFCST Population-Fertility Control Thesaurus. Washington: George Washington University, 1976.
- PFTST Population-Family Planning Thesaurus. Technical Information Service, Carolina Population Center, University of North Carolina by Carline Lucas and Margaret Osburn. 1st ed. Chapel Hill, 1975.
- POPI Population Index. Princeton University, Office of Population Research. Quarterly, since 1935.
- POLST Political Science Thesaurus. Carl BECK et al. Washington, D.C., 1975.
- SCAST SCANP Thesaurus / Scandinavian periodicals index in economics and business. Helsinki School of Economics Library 1979.
- SHSST RESHUS – Sciences Humaines de la Santé : Thesaurus / CDSH (CNRS).
- SPTST SPINES Thesaurus – A controlled and structured Vocabulary on Science and Technology for Policy-Making, Management and Development / UNESCO. Division of Science and Technology policies. Unesco, 1976, 4 vols.
- TCEST Thesaurus du Commerce Extérieur. Bruxelles.
- TC DST Cultural Development « Développement Culturel – Thesaurus. Conseil de l'Europe, par Jean VIET. Strasbourg, Conseil de la Coopération Culturelle, 1976.
- TDCST International Thesaurus of Cultural Development. UNESCO, par Jean VIET Paris, Unesco, 1980.
- TEAST Etudes africaines : Thesaurus. CARDAN; Ecole des Hautes Etudes en Sciences Sociales. In: Bulletin d'information et de liaison publié avec le concours du CNRS, vol. 8 n 1–2, Paris, 1976.
- TEDST Information Retrieval Thesaurus of Education Terms. Gordon C. BARHYDT and Charles T. SCHMIDT. Cleveland: The Press of Case Western Reserve University, 1968.
- TGCST Thesaurus Géographie du Commerce, CRNS, Service de documentation et de cartographie géographiques – Intergeo. CNRS, 1976.
- TGIST Thesaurus Géographie Industrielle, CNRS, Service de documentation et de cartographie géographiques. CNRS, 1976.
- TGPST Thesaurus Géographie de la Population. CNRS, Service de documentation et de cartographie géographiques; réd. par S. PARE et N. VOIOMNAA.–CNRS, 1974.
- TGRST Thesaurus Géographie Rurale. CNRS, Service de documentation et de cartographie géographiques; réd. par S. PARE et N. VOIOMNAA. CNRS, 1971.
- TGUST Thesaurus Géographie urbaine. Service de documentation et de cartographie géographiques du CNRS; réd. par S. PARE et N. VOIOMNAA. CNRS, 1972.
- TICSC Trade Information Classification. International Trade Centre UNCTAD / GATT Documentation Service, Technical Division. 1975.
- TICST Thesaurus of Industrial Development Terms. UNIDO, International Centre for Industrial Studies, Industrial Information Section. 3rd ed. 1976.
- TMCST Thesaurus Mass Communication. Unesco. Division of Free Flow of Information and Communication Policies, Sector of Culture and Communication Policies. – 1st ed. 1975.
- TMEST Thesaurus du Management et de l'Economie. Bureau Marcel van Dijk et Georges Sandeau. 2ème éd. vol. –2, Bureau Marcel van Dijk, Paris, 1975.
- TPOST Thesaurus Multilingue de Population. Comité International de Coopération dans les Recherches Nationales en Démographie (CICRED). 1979.
- TPSST Thesaurus of Psychological Index Terms. 2nd ed. Washington, D.C., 1977.
- TSIST Thesaurus Sciences de l'Information. CNRS, Centre de documentation scientifique et technique. Paris, CNRS, 1977.
- TSOST Thesaurus for Information Processing in Sociology. ICSSD by Jean VIET. – Paris, La Haye. Mouton, 1971.
- TSPST Thesaurus de l'Actualité politique, Economique et Sociale. FNSP, Services de documentation, 1980.
- TSRST Thesaurus of Sociological Research Terminology. Gaspar van de Merwe. – Rotterdam University Press, 1974.
- TURST Thesaurus, Centre de documentation sur l'urbanisme, Ministère de l'Équipement et du Logement. 2 vol. Paris, 1970.
- UNT UNESCO Thesaurus. Unesco Documentation System Division. 1st ed., 1977, 2 vols.