

organised in accordance with formal rules — a kind of IR 'grammar'.

It is only right, at this stage, to point out that the subject statements derived in this way constitute a rather limited kind of IR language. They do not resemble 'index entries' in the usual sense of this term, but are more closely akin to the phrases found in indicative but formalised abstracts, similar in some respects to those which are produced by TITUS, the IR language developed by the Institut Textile de France. Both the French and the Russian systems could, without doubt, be used for mechanised searching, and also, perhaps, for semi-automatic translation (TITUS has certainly been used in this way). Neither system, however, could be used for producing printed or other 'visible' forms of subject index.

In constructing their subject statements, Vleduts and Stokolova recognise two types of verbal component. These are identified as topics ('the more specific facts'), and predicates; the latter generally serve to specify topics more precisely. A given concept can assume either function, so that "expressions derivable from several predicates can appear in other predicates in the role of topics". [It can be seen that the language of the document is not always lucid, though it cannot be known how far this should be attributed to the authors, or to their translator].

The proposed method was first applied to "titles of chemical publications from the field of synthetic organic compounds", and was later extended to documents in biology. From these experiments, a number of 'standard phrases' were established, and these were then examined to discover which syntactical relations, if any, had been encountered. This led to a typology of five basic relations:

- 1 *attributes identifying an entity*
- 2 *properties and parts* inherent to an entity
- 3 *operations and processes* associated with an entity
- 4 *methods of research and study*
- 5 *comparison* of various facts, and certain theoretical connections between these facts.

As can be seen from this list, some of the distinctions (in the absence of adequate explanation) appear to be rather fine, e. g. that drawn between the first and second relations. On the whole, however, these basic relations will already be familiar to anyone trained in analytico-synthetic classification. Indeed, the authors acknowledge the fact that this work resembles, in many respects, the techniques of facet analysis. The small number of relations may come as a surprise, but this could be the result of working within narrow but related fields of discourse.

Unfortunately, no attempt is made to explain the exact techniques which are used in examining a document, determining its subject content, and setting this down as a set of standard phrases which together comprise a subject statement. There are, however, shown examples of formal statements established in this way, e. g.

- (a) 'A chemical substance has structure x and is in the state y'
- (b) 'The biological species x is in the phase of development y, has sex z, age k, ecological form m'

(c) 'In organism x, part y has property z in process k under condition n'. The document also shows examples of phrases at higher levels of complexity.

These examples possibly demonstrate why, in this particular technique, "a necessary stage is the establishment of the relationship genus-species in the set of terms of the language". This does not necessarily mean that semantic relations (as usually understood) have intruded themselves upon the syntactical scene, but rather that all subjects are cast, by intent, in the form of a predicative statement, i. e. 'X is 'a' and 'b' and 'c' etc.'

It is reasonable to assume that, in the present document, Vleduts and Stokolova are reporting on work in progress, i. e. they do not set out to describe an on-going system. As such, the work has some merit and interest, though, without doubt, much remains to be done. The authors state that they intend "to widen the field of application of the suggested method to related areas of chemistry and biology". But although work in these limited fields would, perhaps, reinforce the lessons learned so far, it does not seem likely to force the system to any new limits. I would seriously suggest that further experiments should be carried out in: (a) a 'soft' subject field, such as sociology; (b) a pan-disciplinary data base, such as a large collection of theses covering all subjects. These, I suspect, will become the proving grounds for any new IR language.

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LANGRIDGE, Derek: *Approach to Classification for Students of Librarianship*. London: Clive Bingley 1973. 122 p. 2.

Mr. Langridge sees classification as part of our everyday lives. This book provides an overview of the main areas of classification for the beginning student, but the terminology may be difficult or confusing to the novice.

The text is divided into five sections, moving from classification in general to the elements and schemes of library classification. The author rates Colon Classification as the most logical of the schemes he describes and evaluates and the easiest to use. This is not surprising since Langridge cites his dependence on Ranganathan's principles of classification as being the most precise and consistent.

In an attempt to present the material in each section clearly and concisely, the author explains his main ideas on one page or less. The appearance of the text is thus inviting in its brevity, although often the reader is left dangling without a full explanation of an idea. As a brief overview to classification, the beginning student might find Langridge's book a valuable tool. Also helpful to the reader is the reading list at the end of each section.

Our personal reaction was that the chapters, especially the first two, were chopped up and Ranganathan's *Elements of Library Classification* is still more helpful in understanding the development of classification schemes.

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