Revision of UDC 52 for Astronomy

Report on the "Birds of a Feather" Session at LISA-II

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The last session of the LISA II Workshop was concerned with the revision of class 52 (Astronomy and Geodesy) in the Universal Decimal Classification (UDC). About 50 participants attended the session. The Chairperson was Robyn Shobbrook, who drew attention to the need for an updating of UDC to take into account the developments in astronomy during the past twenty years; she pointed out that other general classification schemes were also out of date. She asked that participants who had an interest in the use of UDC should add their names to a list that was then circulated; nearly 20 persons did so. She then asked George A. Wilkins to open the discussion by describing the context and reviewing the present status of the revision process.

Wilkins first of all described the general nature of UDC, which is a hierarchical classification scheme in which the principal subjects are denoted by decimal numbers and in which auxiliary numbers are used to represent characteristics or facets that are applicable over the whole or part of the scheme. These numbers can be combined together in various ways to represent the content and form of documents of all kinds. These numbers may be used for the arrangement of documents in libraries and of entries in abstract journals, but UDC is designed for much more general use in information retrieval. UDC has the advantages over other systems, such as searches using keywords, that it is language independent, flexible, concise, and unambiguous. It is comprehensive in its scope and, unlike special, locally developed classification schemes, can be used to cover all aspects of the activities of an organisation. UDC is used in many countries, although the Library of Congress scheme is used more widely in libraries in the United States. An extensive listing and index has recently been published in English in two large volumes (BSI, 1993).

The last major revision of the schedule for class 52 took place in the 1970s; the English edition was published in 1977. Attention was drawn during LISA I in 1988 to the need for another updating and in 1989 it was agreed that the Soviet Information Service VINITI should be responsible for the revision. Unfortunately, no progress was made, and so in 1994 Wilkins agreed to try to set up a Task Group of IAU Commission 5 to complete the revision for astronomy

(classes 520/524), but not for geodesy (528). The revision process is in two principal stages: firstly, to identify the new terms (objects, concepts, processes, characteristics) that need to be classified; and secondly, to fit these terms into the classification scheme and to assign new main or auxiliary numbers where necessary. This requires both a technical knowledge of the relationships within each subject area and a judgement as to how best to represent these relationships within UDC. For example, there is often a choice between expanding the main numbers to further decimal places and combining the main numbers with existing or new auxiliary numbers.

Wilkins stated that, with the help of M.-J. Vin and R. M. Shobbrook, he had compiled an alphabetical index of terms that was several times longer than that in the 1977 edition. He had made much use of the Astronomy Thesaurus and the indexing terms used in Astronomy and Astrophysics Abstracts and other publications. He had drafted expansions of the main and auxiliary numbers, but in some areas he had only been able to list the terms that appeared to be relevant. He hoped that more persons would be willing to participate in the revision, either directly or by seeking the help of astronomers in their organisations. He indicated that there were three main areas where expert help was required: in the classification of stars in 534.3; in the classification of extragalactic systems in 534.7; and in the treatment of theoretical astrophysics, which might be developed in the empty class 522, and of theories of cosmology, now in 524.8. All the changes and additions should be checked by experts.

During the general discussion that followed the view was expressed that keyword lists and free text searches have superseded the use of classification codes for information retrieval. On the other hand, a lot of searching time could be saved if each paper were accompanied by a full classification code that described concisely and accurately its subject areas. A show of hands indicated that the main use of UDC by those present was for the shelving of library books; the view was expressed that simple numbers were to be preferred since users were not prepared to learn how to interpret and use compound numbers.

Unfortunately, there was insufficient time to discuss these matters in depth. The Chairperson closed the meeting after pointing out how the hierarchical list on the blue pages of the Astronomy Thesaurus might be used to assist in the development of the UDC schedule.

References

[1] BSI, 1993. Universal Decimal Classification. International Medium Edition. English text, edition 2. BS1000M: 1993. Part 1. Systematic tables. pp xiv +

914. Part 2. Index. pp iii + 531. British Standards Institution, 2 Park Street, London W1A 2BS, England.