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4th International ISKO Conference, Washington, DC, 1996

There was already a Call for Papers in ISKO News 20 on our next big conference from July 15-18, 1996 in Washington, USA, on *Knowledge Organization and Change*. But we would like to turn your attention once more to this event and are therefore reprinting the Call on the back cover page of this issue for your convenience. Please note that the deadline for handing in proposals for papers has been set by Sept.30, 1995.

Research Seminar on Compatibility and Integration of Order Systems

The program of this ISKO Regional Seminar in Warsaw from Sept.13-15, 1995 has to this date not as yet been finalized. The following papers have been proposed to be presented and discussed:

W.BABIK, Poland: Terminology as a level for compatibility of indexing languages. - V.N. BELOOZEROV, Russia: Experiences from establishing compatibility of information retrieval languages. - I.DAHLBERG, Germany: The compatibility guidelines - a re-evaluation. - J. GANZMANN, Germany: Possibilities and limitations of indexing languages compatibility in newspaper documentation. - St. HOPPE: The UMLS - a model for knowledge integration in a subject field. - H. IYER, USA: Mapping knowledge structures: Expert system interface. - N.N.: Integrating thesauri in the agricultural sciences. - N.V.KOLPAKOVA, N.A.SIDIRENKO, Russia: Bibliographic diagnosting the new direction of bibliographic activities. - I. KRAWCZAK, Poland: Remarks on compatibility of information in the statistics system of S & T management STANPOL. - G. NEGRINI, Italy: Towards structural compatibility between concept systems. - G. RIESTHUIS, TheNetherlands: Theory of compatibility of information languages. - C. ROULIN, Belgium: Bringing multilingual thesauri together: a feasibility study. - E.M.RUCHIMSKAYA, Russia: The system principle of constructing a subject heading language. - E.SCIBOR, Poland: Some remarks on the establishment of concordances between a universal classification system and an interdisciplinary thesaurus. - W.SCHMITZ-ESSER, Germany: Language of general communication and concept compatibility. - Th. SCHÜTZ, Germany: A metasystems approach for environmental thesauri. - D. SOERGEL, USA: Data structure and software support for integrated thesauri. - R. UNGVARY, Hungary: Opposition as a kind of compatibility. On the question of the missing accordance between classification systems and thesauri. - H.ZIMMERMANN, Germany: Conception and application possibilities of classification concordances in an OPAC environment. Furthermore, papers have been announced by Ch. GALINSKI, Austria, E.CHMIELEWSKA-GORCZYCA, H.RYBINSKI, M.MURASZKIEWICZ, J.WOZNIAK, B.SOSINSKA, M.

ZABICKI, and K.SIWEK, Poland. Computer demonstrations will be given by H. Rybinski and M. Zabicki. For further information contact: Ms. K. Siwek, Society for Professional Information, Ul. Klonowa 18, PL-00591 Warszawa, Poland. Phone +48-22-499600, Fax: +48-22-6213439.

ISKO on the INTERNET

Already in 1992, the youngest of our ISKO members, Mr. *Alexander Sigel*, School for Library and Information Science at the Polytechnic of Hannover, took care that the ISKO Information Brochure could be found in the Internet. The updated version of Nov.30, 1994 is now accessible through his help under the address: http://www.fh-hannover.de/ik/Infoscience/ISKO.html.

Meanwhile, last fall, *Dr. Steve Pollitt*, our British coordinator, also did us the favor of establishing an ISKO page under the address:

http://www.hud.ac.uk/schools/cedar/isko.html.

Thus, ISKO can be found electronically at least twice, although, for the time being, it has still no email address itself at the headquarters. However, we are working towards its realization.

Classification Systems in the INTERNET

Mr. Alexander Sigel was also kind enough to do an initial search for applications of classification systems in the Internet outside of the traditional OPACs. There are of course many more in use already than the five ones listed in the following. **We would therefore invite our readers to help us trace all that is going on at present in this field.** Please, send us any information you might find on classification systems in the Internet. We will publish it in this our ISKO News section. **Mathematics:** The two top level classes of the CR Classification System used for the Zentralblatt für Mathematik, Berlin can be accessed via:

http://www.zblmath.fiz-karlsruhe.de/class/cr-over.html

Computer Science: The Association for Computing Machinery (ACM) has permitted the use of its Computing Reviews Classification Scheme for the Journal of Universal Computer Science (J.UCS). Its text reads: "J.UCS can be read using WWW clients such as Mosaic and Netscape. However, some subtle features are only provided if Hyper-G viewers such as Harmony and Amadeus are used. See the list of publicly accessible J.UCS servers per Feb.95 to ensure the closest connection or consider how to become a server yourself. To access with a WWW client use the following URL to a Hyper-G server:

http://www.par.univie.ac:8000/

The following Categories A-K are permitted: General Literature. Hardware. Computer Systems Organisation. Software. Data. Theory of Computation. Mathematics of Computing. Information Systems. Computing Methodologies. Computer Applications. Computer Milieux."

Subject Tree following UDC

The subject structure provided by the University Library of Lund has been organized following the UDC. It can be found under URL:

gopher://gopher.ub2.lu.se/l/resources/by subject/

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The following UDC classes are mentioned: 0 General, Bibliography, Library Science; 1 Philosophy, Psychology, Ethics; 2 Religion, Theology; 3 Social Sciences; 5 Mathematics, Natural Sciences; 6 Applied Sciences, Medicine, Technology; 7 Art, Architecture, Music, Sports; 8 Linguistics, Philology, Literature; 9 Geography, Biography, History.

Metainformation Mapping to URC with the ROADS System

A tool exists to create UDC output from SOSIG IAFA templates (Metainformation for Internet Resources). A demonstration, a short description and the sources of the Perl programs can be found referenced from the URL:
http://weeble.lut.ac.uk/

The SOSIG archive has been organized in separate UDC sections ordered either alphabetically (http://weeble.lut.ac.uk/udc-tree/alphalist.html) or by UDC number (http://weeble.lut.ac.uk/udc-tree/udslist.html). New UDC classifications can be added on the fly and will appear automatically in both lists. The following items of UDC sections are currently contained in its resource database: 159.5 Psychology, 3 Social Science - General, 30 Sociology, 31 Statistics, 312 Demographics, 32 Politics, 33 Economics, 330 Political Economy, 330.442 Development Studies, 34 Law, 35 Government, 355 Military Science, 36 Social Welfare and Relief (including insurance), 362.65 Disability issues, 37 Education, 39 Ethnology, 396 Feminism, 572 Anthropology, 657 Accountancy, 658 Business and Industrial Management, 91 Geography.

Classes of the DDC are accessible through an address at the University of Wolverhampton, School of Computing and Information Technology:
http://www.scit.wlv.ac.uk/wwllb/newclass.html

WWLIB* - Classified Listing of WWW Pages. "This is a comprehensive catalogue of WWW pages at sites in the United Kingdom. The catalogue is organised using the Dewey Decimal Classification (DDC - version 20) widely used in libraries. You will find a few non-UK pages representing multi-national organisations active in the United Kingdom. (...) You might care to note that this is a spare time activity not in any way supported by the University of Wolverhampton or anybody else. Comments etc., to Peter Burden" jphb@scitsc.wlv.ac.uk

See also the short report on the U.K. CRG 300 Meeting in the Section Reports and Communications of this issue.

2nd Russian ISKO Conference
Moscow, May 15-18, 1995

by Ia C. McIlwaine

This account is based on my personal observations attending the above named conference in Moscow. It is inevitably one-sided and is heavily dependent upon the translations with which I was provided since I was only able to follow those papers given in English, and otherwise I have relied upon the able assistance of an interpreter and the English abstracts or translations that were provided. The conference engendered a lively interchange of views between participants, almost all of whom were Russian. It was held in the Russsian State Library (formerly the Lenin Library) Moscow and attended by about sixty delegates. As the conference topic was *Knowledge Organization and Linguistic Aspects* the stress was on language and syntax as the basis of knowledge organization and less attention was paid to problems engendered by a specifically automated environment that would have been the case in the West. I am only able to comment on a selection of papers, as I spent one day visiting VINITI and one morning was devoted to my own presentation on the Universal Decimal Classification, which is printed elsewhere in this issue.

The first morning was devoted to a contribution by Dr. *Dahlberg* following the official opening of the conference by Professor *E. Sukiasyan*, the Deputy Director of the Russian State Library. I. Dahlberg spoke on "Concept Theory and its Implications for the Construction of Concept Systems". She began by defining knowledge and distinguishing *personal knowledge* which is not transferable from *social knowledge* which is expressed in words - but words, she suggested, are unreliable and a better basis for the transfer of knowledge would be what she names "units of knowledge"/concepts. This was a theme that was returned to on the final day by Dr.*S.D.Shelov* in his exposition of his approach to mapping knowledge through the use of "terminology classes" and the identification of types of relationship, in a structured manner. I.Dahlberg distinguished general, special and individual concepts which she said depended upon the referent of a concept and she contended that the predications made on these referents would deliver knowledge elements which are to be used as the basis for the formation of concept characteristics. Relationships between concepts depend on the different kinds of characteristics which she demonstrated as formal-categorial and material/contents-related ones. It is by their identification that different concept systems can be constructed. They are manifested in the nine categories of being that are set out in the chart that she uses for her Information Coding Classification, arranged according to a recurrent set of facets following the principle of what the calls the "Systematifier".

After a morning devoted to the theory of knowledge organization, in the afternoon attention was turned to more practical matters. *M. Dvorkina* opened the proceedings with a lively and informal presentation on the language of symbols in knowledge organization within a library. She felt that not enough attention was paid to the visual presentation of knowledge within libraries which she suggested could be carried out in three different ways. Firstly, there are the images encapsulated within the actual design of the library; for example, she suggested that the main staircase in the Russian State Library led into the suite of reading rooms and this represented the route up to the peaks of knowledge. Secondly, there were symbol-pictograms and sign drawings, symbolizing the different types of service-point within a library; these were particularly popular in children's libraries. The third type of symbol commonly found in libraries comprised the actual codes used on documents, guide-cards, shelf-headings, etc. She felt that the diverse vocabulary of the symbols used in libraries, the logos denoting the actual type of library, the labelling of sections and the symbols on the books themselves (all illustrated with actual examples that

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she had collected) should be standardized and that this would improve communication between the stock and the library user. The final presentation on the first day was given by *O. Furalev* on the problems of content searching that were encountered in the transition from traditional library catalogues to an online public access catalogue. He drew on his experience from the rapid transition of automation in Russian libraries in the sphere of science and technology. He identified two distinctions between traditional catalogues and OPACs. Firstly, with the OPAC the onus was on the system to achieve relevance in subject searching, while in the traditional environment it lay with the user. Secondly, each traditional catalogue has one information language which is used both as an indexing language and as a retrieval tool, while in an automated environment these may differ. Particular problems arising with OPACs that he identified related to subject indexing, linguistic and grammatical currency and weighting in a search strategy. He outlined how he had resolved the first two problems through the application of a program on CDS/ISIS. He analyzed the various functions that needed clarifying before the third problem could be resolved, such as linguistic problems and the forms of word on which to search, algebraic problems involving search strategies and the various factors affecting the weighting given to searches.

The second morning was taken up with three papers that I was unable to hear as I was at VINITI. They were *A. Polikarpov* on "Language as a natural classification system",*E. Zaitseva* on "The procedure of inflexions quick cutting and its use in linguistic processors". and*E. Ruchimskaya* on "The unification of the syntax of the subjects headings language". The afternoon was free.

The final morning was devoted to the Universal Decimal Classification (see the text on p.64- of this issue) and it was followed up by a lively discussion and question and answer session. After lunch the third and last non-Russian delegate, *I. Stern* from Kiev, Ukraine, spoke on "The encyclopaedic knowledge. Representation, compilation, processing. A version of a cognitive model". Her discussion was derived from her experience in the production of an encyclopaedia and the problems arising from attempting to present knowledge coherently in such a work. She was concerned with an encyclopaedia that was published in hard copy, although its compilation was computer-assisted. She highlighted the problems that arise when one attempts to encapsulate knowledge in words comparing the content of an encyclopaedia to the knowledge of an individual and the parallel difficulties that are experienced in attempting to convey personal knowledge to another person or group of people. She demonstrated the working model that she had evolved which could be used as an intelligent system for the compilation of encyclopaedias of different kinds.

Her presentation was followed by that of *S.D.Shelov* on "Knowledge representation through terminology classes" referred to above. The interdependence of knowledge representation, terminology, conceptual structure of terminology and definitional analysis were the themes explored. The speaker identified the nature of terms as firstly the meaning of a sign (word or word combination) and secondly the elements necessary for understanding a term (definitions). In the broadest sense, the concept structure of terminology is the totality of all concept relationships between terms. In the narrower sense, it is the totality of all conceptual relationships between terms in accordance with a given system of term definitions - usually a system explaining the meanings of terms. To establish a conceptual hierarchy the concept of the "text marker" was important. This was used to express the conceptual relationship of one given term to another closest to it in meaning, within a given context. It is used to express relationships such as "totality of", "property of", "part of", "results of", etc. On the basis of a definition analysis such as this, it is possible to represent knowledge. The approach is similar to that used in identifying relationships such as genus/species, etc., most commonly identified through the thesaural abbreviations BT, NT and RT. But the speaker claimed that his system went beyond the thesaural approach because it established relationships not just between pairs of words but, between triplets, quadruplets, etc. He suggested that the framework he had set up could easily be assimilated into standard database terminology.

E. Sukiasyan brought the conference to a close with his concluding paper on "Knowledge organization as an object of study and subject studies". He reflected on the development of Knowledge Organization as a discipline and the developmental process within the individual of organizing knowledge as he acquires it within his mind, from earliest youth. This personal and individual development constituted one of the problems in teaching organization of knowledge, since its acquisition and categorization was a highly individual matter and people did not necessarily think in the same way. He suggested that it would be very salutary if it were introduced at an early age into the school curriculum. This would lead naturally into its further development at the level of secondary education. This concluding presentation reminded one of the similar proposal by Barbara Kyle in her contribution to the Sayers Memorial Volume, in which she too proposed that classification should be introduced as a compulsory subject in schools. This thought-provoking paper rounded off the conference admirably and provided a stimulating conclusion to a memorable three days.

What follows are some additions by I.Dahlberg:
In her summarizing conclusion, *Dahlberg* showed, how in a surely unintentional way, the program design of Mr.*Sukiasyan* had beautifully followed the systematifier principle which she had outlined in her paper as a helpful device in structuring knowledge fields, as indeed the following 9 facets of the general topic had been considered in the program:

1. *Facet of General and theoretical* problems: the two papers of the first morning by I.Dahlberg.
2. *Facet of the Object of concern* (here of linguistics: the word, the sign): the papers by A. SOKOLOV (not presented but included in the program) on Social Memory and Signs, as well as the papers by M. DVORKINA and A.A. POLIKARPOV.
3. *The Activity facet* (represented by papers on language statistics (E.ZAITSEVA) and on the syntax of subject headings (E. RUCHIMSKAYA).

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The *next three facets* 4 - 6 showed specializations of the aforementioned facets, namely

4. Elaborating on the problems of the UDC, its revision and computerization work (I. McILWAINE).

5. Problems of subject access through OPACs (O.FURALEV)

6. Problems of knowledge representation through terminology (S. SHELOV)

7. *The facet "Influence from outside"* can be interpreted in this context as the problems of standardization. Although these were not thematized in papers proper, one could infer from the papers by Dvorkina and Ruchimskaya topics which would need preparatory work towards standardization.

8. *The Application facet*: (applying the knowledge of this field to other fields) included in the paper by I.STERN - what are the new KO problems to be considered when compiling an encyclopedia?.

9. *The Actualization facet* (synthesizing the knowledge of the eight preceding facets for the sake of KO transfer to those who need to know), very aptly represented in E.SUKIASYAN's paper.

The conference ended with an unforgettable event: a very nicely arranged dinner of all the Russian ISKO members with many toasts and fine stories to remember. It was a pity that Prof. A. Sokolov, St. Peterburg could not be with us, just as also Y.Krjukov, A. Petrov, and R. Potapova, all of which had prepared papers and were in the program. The organizers had also taken care of a marvellous social program: we enjoyed the Ballet "Don Quichotte" in the Kremlin Palace, we visited the newly opened, absolutely phantastic Tretjakov Gallery with its 63 halls filled with tremendous treasures of old and new Russian paintings and sculpture, and we were invited to a one day excursion to see the monastery in nearby Istra called "The New Jerusalem", a most memorable place for many reasons. Russians seem to know well how to treat their guests!

Personal News

Just during the Moscow week, our very first ISKO member, *Prof. Dr. Otto Nacke*, celebrated his 80th birthday on May 18! We should like to congratulate this pioneer in the field of medical information science who had started already 35 years ago the journal "Methods of Information in Medicine", founded the Society for Medical Documentation and Statistics, directed for a lifetime the Institute for Documentation and Information in Social Medicine, Bielefeld next to being a Professor at the University of Münster for Medical Informatics and being the chair for the revision of UDC 61. Last year he surprised us with his new ideas on Veritology (see the Editorial of KO 94-3 on Knowledge Organization and Truth) and again this year with the idea of a new journal on this topic and also a conference. We can only wish that he may be blessed to continue his life so vigorously and healthy and so positively minded as he has always been!

The Chairman of ISKO's Scientific Advisory Council, *Dr. Winfrid Schmitz-Esser,* Hamburg has received a full professorship for Media Documentation at the Polytechnic of Hamburg beginning 1995. After seven years of activities as a journalist, Dr.Schmitz-Esser went to the publishing house Gruner + Jahr 1970 and directed there the research department for the journal "Capital". From 1972-1980 he combined the G+J Archives and created the G+J database for text and pictures, the first big modern application for data and reproduction technology in the field of media documentation in Europe. He established there also digital optical media. Since 1982 he started his own company as a consultant for information systems. In addition he had been for many years chair of the German Professional Documentation Association (VDD) and member of the Council of the German Documentation Society (DGD). He is also still chairman of the DGD Committee for Classification and Thesaurus Research. ISKO extends very best wishes to him on the new appointment!

SCIRE. Representación y Organización del Conocimiento

We should like to congratulate the members of our Spanish ISKO Chapter for having succeeded to start a journal on their own! It is - very fittingly - named SCIRE (Latin: to know) and has just been distributed with an Editorial by Dr. F.J. Garcia Marco, with some further six interesting articles and a report by Prof. M.A. Esteban Navarro on the first conference on Knowledge Organization held at Zaragoza, Nov. 1991. Our readers will know both these young philosophers already from their article *"On some contributions of the cognitive sciences and epistemology to a theory of classification"* (KO 20(1993)No.3, p.126-133). The bibliographic data of this new scientific journal are included in our *Knowledge Organization Literature* section of this issue under the serial number 0238.

To our great surprise, together with the first number of SCIRE we received the very nicely bound and arranged *proceedings volume* of the Spanish ISKO Conference of Nov. 1993 in Madrid. It is equally listed in this issue under *06 Conference Reports, Proceedings,* Serial No. 0288-0312. We do hope and wish that these two Spanish publications in our field will start a vivid interest among the Spanish speaking colleagues in Europe and Latin America! And may they have many subscribers and readers in order to continue and to bear fruits!

Preparations for the next conference of the Spanish ISKO Chapter, to be held in November 1995 in Madrid, have started. May it be equally successful and become another very blessed encounter for all our Spanish colleagues!

At the German Documentation Society's annual conference, which will take place at Potsdam, Sept.26-28, 1995, one session will be devoted to Thesauri in Econmics chaired by Mr.H.G.Striefler (Sept.26) and one on Knowledge Processing, chaired by Prof.B. Endres-Niggemeyer (Sept.28). For the program please write to DGD, Ostbahnhofstr. 13, D-60314 Frankfurt. Tel.:+40-69-430313, Fax:+49-69-4909096.

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