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ISCCR'91 Proceedings

Copies of the ISCCR'91 Proceedings have been deposited at the FID Headquarters in The Hague. Copies for the conference participants are being mailed to them directly from The Hague. Members of FID/CR who were not conference attendees but who would like to purchase copies of the proceedings should contact the FID General Secretariat, P.O.Box 90402, NL-2509 LK The Hague, Netherlands.

FID/CR and ISKO Joint Meeting, Madrid, Oct.20, 1992

FID/CR and ISKO jointly sponsored a one-day special meeting in Madrid, Spain, October 20, in conjunction with the 46th Conference and Congress of FID. The meeting opened with a welcome from the Chairperson of FID/CR Nancy WILLIAMSON. The Classification Research Group (CRG) had sent its greetings from the CRG Ranganathan Centenary Meeting held in London on October 15, where papers had been presented by Derek Langridge, Jack MILLS and Nancy WILLIAMSON.

At the FID/CR and ISKO meeting five papers were presented and a business meeting on future directions for FID/CR was held. Also an important event at this meeting was the presentation of the FID Ranganathan Award in Classification Research to Professor A. NEELAMEGHAN of India for his distinguished contribution to research and development in the application of faceted classification to modern information storage and retrieval systems. Unfortunately Professor Neelameghan, who is presently teaching at the University of Addis Ababa in Ethiopia was unable to be in Madrid for the presentation. Dr. Alvarez-Ossorio, Chairman of the FID Conference Organizing Committee and a friend of Professor Neelameghan accepted the award on his behalf. In this the centenary year of Ranganathan's birth, it was very appropriate that the award was received by a distinguished librarian and educator who had known and worked with Ranganathan and who has continued to carry out research based on his work.

The first paper presented at the meeting and prepared by F.J. GARCIA MARCO and M.A. ESTEBAN NAVARRO, University of Zaragoza, was entitled *On some contributions of the cognitive sciences and epistemology to classification research* and was delivered by GARCIA MARCO. The emphasis here was on classification theory. The authors defined classification research as "a central aspect of information activity, in particular and of human activity in general - classification being a central resource of human activity and mind". The introduction to the paper was an examination of classification as a central aspect of research in various sciences. Following a discussion of the concept "cognitive science(s)", in both the singular and plural, the principal focus was on cogni-

tive science as the 'science of knowledge' and several aspects of the topic were discussed. Included were 'cognitive science and information science, their relations and differences', 'epistemology, cognitive psychology and information science' and 'some contributions of cognitive psychology to a theory of classification'. In their conclusion, the authors expressed the idea that in modern information systems traditional classification and cognitive paradigms together are needed to explain the processes of information science. A full text of this paper will be published in the coming months.

The second paper *Subject Authority control in a union catalogue: Perspectives for a national co-operative project in Portugal* presented by Maria Ines LOPES, National Library of Lisbon, discussed ongoing practical work in the development of a national authority control system. This project arose out of the Portuguese National Bibliographic Database called PORBASE, existing since 1989 and a need for compatibility in indexing languages in Portuguese. The paper described the nature of co-operation in subject indexing in Portugal, the structuring and development of an authority control project and the prospects for its implementation in PORBASE. In conclusion Ms. LOPES mentioned a number of concerns, including the complexity of the project and the time and effort which will be required to maintain the motivation of the participants in order to bring the project to its conclusion. A full text of this paper will be published in the coming months.

In the third paper, Ingetraut DAHLBERG presented a critical appraisal of *DIN 32 705: The German Standard on Classification Systems*. Dr. DAHLBERG began with a description of the background and development of the standard and continued with a brief description of each of the chapters in the standard, followed by a discussion of the structure and contents of DIN 32 705. In her appraisal of the standard she addressed several questions and concerns as follows: Why does the standard not concentrate on a faceted classification as the optimal structure? Why was computerization excluded from the standard? She also strongly supported the need for the convergence of classification systems and thesauri on the basis of a faceted arrangement of both. In her concluding remarks, she calls for collaboration among professionals in classification, thesauri and terminology for improved development of systems of knowledge organization.

In a fourth paper, not scheduled for the original programme, Rosa SANSEGUNDO from Carlos III University of Madrid, gave a brief presentation on *The Reality Gap in Present Library Classification Systems*. In this paper based on her doctoral thesis, Dr. SANSEGUNDO's argument is a well accepted one - that the existing universal classification systems are imperfect reflections of the modern world because of their roots in the 19th century. She concluded that today's systems are "in-operative or merely practical and lack a theoretical basis on which to stand". As a solution she calls for a new way of thinking to support new classification structures which would be more in keeping with modern "realms of thought".

The presentation of papers was concluded by Nancy WILLIAMSON who gave a preliminary analysis of the recommendations from the five International Study Conferences on Classification Research held between 1957 and 1991. At the outset, she outlined the difficulties in the task of analyzing the recommendations from the study conferences which have emerged from the conferences over the past thirty-five years in the light of todays's information systems requirements. Professor WILLIAMSON outlined four steps which would be needed to determine current and future directions for research. As a starting point there must be a full analysis of the study conference recommendations themselves to locate similarities, differences and overlap among them. At the second stage, data from the analysis should be examined closely and clarified in order to extract research areas which could then, at the third stage, be searched in databases to determine exactly what has been accomplished in each case. This step might result in a series of review articles, possibly researched and prepared by FID/CR members which could then become the basis for developing and coordinating a future research agenda for classification and the organization of knowledge. Findings at this preliminary stage indicated that each study conference has been individual in nature, standing on its own, with little reference to previous conferences or to the accomplishments between conferences. In the broadest sense, over the years there is definite evidence of movement from the theoretical to the practical and from manual to computerized systems. In general, the recommendations are repetitive over the five conferences and tend to focus on the conference themes, with little indication of development based on previous research. Frequently recurring topics express the need for the development of a set of general categories, the clear definition of relationships among terms, improved design of tools for knowledge organization, a set of principles and methodologies for evaluating systems, the development of a terminology for classification, the determination of requirements for education in classification theory and practice and the need for the coordination of research in the organization of knowledge. This analysis is only the first stage of this investigation. A deeper investigation is planned to identify and describe topics from the recommendations which could then be used as a starting point for a more in-depth investigation of the various topics in which research has been carried out. WILLIAMSON hopes that the results of this project would lead to a series of analytical review articles on the state-of-the-art. Finally, she recommended that in future the study conferences include a presentation which would summarize accomplishments since the previous study conference. A more complete discussion of this project will be published at a later date.

During the **FID/CR Business Meeting**, Alan GILCHRIST presented a brief *Report on the Current Status of UDC*, in which he made several major points. The UDC is now formally operated as a Consortium under Dutch law in the form of a 'Stichting' (non-profit organization).

Known as the UDCC, the stichting is governed by an Executive Committee of the founding members consisting of the five leading publishers (Belgium, Japan, The Netherlands, Spain and the United Kingdom) and FID itself. These six members have underwritten the funding for 1992/92. Assets, tangible and intangible, have been transferred from FID to the UDCC. The Secretariat continues to operate in The Hague, in accommodation provided free of charge by the Royal Library. A machine-readable Master Reference File is almost complete, consisting of some 60,000 entries in English, representing the English Medium Edition plus Additions and Changers. It is intended that all existing publishers will have formal licences agreed upon by the end of 1992. A Revision Advisory Group (RAG) is in place with responsibilities to plan and commission revisions and to have such work refereed. A database of experts both institutional and individual is being compiled. Also a new *Guide to the Use of the UDC* has been prepared and will be published by FID in 1993. In English, the Guide will be available to any publisher wishing to translate it.

Following from Alan GILCHRIST's report, Nancy WILLIAMSON proposed the establishment of a UDC Users' Club, under the aegis of FID/CR which could assist the Revision Advisory Group. Alan GILCHRIST welcomed this proposal and noted that the UDCC was inviting the DACH Committee (representing the German speaking users) to form a Users' Club; and that he had spoken earlier to Maria Ines LOPES about the possibility of a Portuguese User Club. The development of User Clubs will be encouraged and their input on UDC will be a valuable asset in the ongoing work of revision. Interested parties should direct enquiries to Alan GILCHRIST, 38 Ship Street, Brighton BN1 1AB, United Kingdom, FAX +44-273-203495.

Following from the discussion of UDC Users' Clubs, Nancy WILLIAMSON announced her intention to institute an FID/CR membership drive with the idea that an FID/CR Users' Club could be pursued in parallel. In conjunction with this a new FID/CR brochure is to be produced.

Also on the subject of UDC, Nancy WILLIAMSON stated that she is applying for funding to examine the possibility of transcribing classification into other formats using facet analysis, studying as a test case, the transcription of UDC into the facet framework provided by the Bliss Bibliographic Classification. Alan GILCHRIST noted that he has had initial contact with the University of Surrey in the United Kingdom, which wants to use UDC as a knowledge structure in an expert system. This is a project being funded by ESPRIT.

In general, it should be noted that substantial efforts are being made in various quarters to improve both the administation and revision of UDC and to encourage research and development into this widely used classification system in order to ensure that it will continue to be a viable system into the 21st century.

Future conferencesa of both ISKO and FID/CR were discussed. It was noted that in 1994 there would be the

Third International ISKO Conference in Copenhagen and the FID Conference and Congress in Tokyo. There will also be ISKO regional meetings in Moscow (May 1993) and Germany (October 1993). Subsequent to the Madrid meeting it was decided that approval should be sought for an FID Seminar on UDC to be held prior to the FID Conference in Tokyo. Also, FID and UDC centenaries will be celebrated in 1995; the Belgians have already begun to consider the UDC aspect.

In concluding the Madrid meeting, Nancy WILLIAM-SON thanked everybody for their contributions and adjourned the meeting.

USA: ASIS/SIG/CR

The 55th Annual Meeting of ASIS was held in Pittsburgh, PA, Oct.26-29, 1992 and many of the more energetic participants in the FID Conference and Congress in Madrid were attending some meetings of both organizations. The theme of the Annual Meeting was "Celebrating Change - Information Management on the Move". This resulted in a very broad and open approach to the discussions at the ASIS Annual Meeting leading to much interaction among various groups present. Prior to the main conference, ASIS SIG/CR sponsored a highly successful 3rd ASIS Classification Research workshop. During the Annual Meeting itself, SIG/CR sponsored 3 sessions and co-sponsored 2 additional programmes.

In one session, four papers were presented on *Classification and Retrieval Software Reuse*. The papers focussed on how to classify, represent and index reusable software components for eventual retrieval from software libraries. A presentation on *Empirical Evaluation of Reuse Library Representation Methods* by William B. FRA-KES, introduced the programme with a comparison of methods from library science, artificial intelligence and hypertext from experimental studies which had compared them. Focus was on a study of 35 subjects searched for reusable components in a database of UNIX tools using four different representation methods: attribute-value, enumerative classification, faceting, and free-text keywords. The methods were rated for searching effectiveness and search time, while users rated the methods in terms of preference and helpfulness. Principles for constructing reuse libraries were also discussed. A second paper, by Ruben PRIETO-DIAZ focussed on *Applying Faceted Classification to Domain Analysis*. He described the process of deriving faceted classification schemes for specialized collections as being analogous to domain analysis. A bottom-up domain analysis method based on the principles of literary warrant and facet analysis was presented. An iterative process of identification, selection, abstraction and classification was used and a faceted scheme was derived from descriptors for software components and the facets used as a framework for a standard lexicon representing all the elements in the domain. The lexicon then became the domain model for standardizing queries as well as providing a preliminary specification language. Following from this Hanne ALBRECHTSEN considered *Domain Analysis for Classification of Softwa-*

re advocating and proposing a methodological framework for facet analysis that considered different epistemological interests in the domain of software. Finally, Lynn STREETER, Mary LELAND and Velu SEGBU-GAMOORTHY addressed the problem of *Finding the Right Code*, focussing on latent semantic indexing, an automated technique designed to model the large lexical diversity found in language. In an experiment using C, library functions were explored to determine the types of information which should be stored and the indexing method which should be used. Results over a number of document collections demonstrated that latent semantic indexing (LSI) improves recall between 15-20% over other retrieval methods.

A second SIG/CR program focussed on *Frames in Support of Information Retrieval*. Three papers were presented. In her paper on *Example-Based Tutorial in the Use of Frames in Knowledge-Based Information Retrieval Systems* Susanne HUMPHREY concentrated on the application of frame systems in the indexing of search queries. In this system, frames are analogous to records in a conventional thesaurus, but represent the concepts more fully, encoding domain-specific links to other frames and greatly expanding the related term links in thesauri. Examples were drawn from the user interface of a prototype system called MedlndEx, developed at the National Library of Medicine, to describe the way in which frames result in user-system interaction. Phillip J. SMITH provided *A Comparison of Computerized Intermediaries Using Frames to Represent Document Contents*. In doing so, he examined different approaches of building intelligent intermediary systems, outlined the alternative control processing used in these systems and discussed their implications in terms of the actual behaviour. In the final paper of this session, *Using Frame-based Representations to Assess Relevance,* Rebecca GREEN discussed the possibilities for ranked output in document retrieval using a search algorithm operating over a frame-based system. Her examples were drawn from frame-based search requests and indexing representations of passages from the New Testament.

The third SIG/CR sponsored programme focussed on the broad topic of *Knowledge Management Systems: The role of Classification Research*. Three papers were presented and the emphasis here was on corporate information systems. Dagobert SOERGEL described *New Vistas for Knowledge-Based Information Support in Complex Organizations*. The major focus was decision support systems and the need for new techniques for information structure management that integrate databases, expert systems, information retrieval and hypermedia systems based on the recognition of a common core shared by such systems. A paper by Irene TRAVIS, Ana Flavia FONSE-CA and Samia BENDIR on *The Development of an Electronic Filing Scheme for the World Bank* discussed the steps in the development of a classification scheme for the online records management system of one of the Bank's operational vice-presidencies. William NOAH's presentation on *Software Design Issues to support Access*

to Corporate Information described the investigation into various ways of dealing with technologies applicable to real-time selective dissemination of information in relation to e-mail and retrospective retrieval. A goal would be to extend the traditional concept of SCI to a broader paradigm for sharing information among people, applications and processes. The final paper in this group on *Organizational Issues in Information Environments*, by Mark ACKERMAN examined the role of models from classification research in creating corporate information environments.

In addition, SIG/CR co-sponsored with the Special Interest Group on Human-Computer Interaction (HCI) a programme on *The Use of Thesauri to Support End-User Searching* which featured papers on *Interface Design Issues in Providing Access to Thesauri* by Jim ANDERSON, *The ULMS and an Intelligent Thesaurus System* by Alexa McGRAY, and *The Getty Online Searching Project Results: Implications for Thesauri* by Marcia BATES. ULMS

is the Unified Medical Language System and the Getty Project involves the *Art & Architecture Thesaurus*. A second meeting co-sponsored with Special Interest Groups on Education for Information Science (SIG/ED) and the Foundations of Information Science (SIG/FIS) focused *On the Elements of Knowledge Representation: Revisiting the Foundations*. This session postulated that a specific set of rules for Knowledge Representation (KR) may be misguided. In the light of this assumption the participants presented alternatives to KR including textual and nontextual applications. Papers from various perspectives were presented by David BLAIR, Michael BUCKLAND and Robert KORFHAGE.

The range of SIG/CR's involvement in the ASIS programmes is symptomatic of the recognition that classification in its various forms is fundamental to the design and development of document and information systems of all kinds.

Nancy Williamson