

tentative 61 schedules for Anatomy and Physiology, Curative Medicine, Diseases and Pathology and the Urogenital system; "Towards a Revision of Class 51 - Mathematics", describing the current situation and calling for comments and suggestions (Matthew Phillips, Christ Church Library, Oxford, OX1 1DP, UK; email: matthew.phillips@christ-church.ox.ac.uk); "International Exchange Languages: the Case of the Universal Decimal Classification", by Michele Santoro; and "Activities of the ISTEI in the Field of the UDC", by F. Scibor, an article on the work of the Institute for Scientific, Technical and Economic Information, the publisher of UDC in Poland. Also included in this edition of *E&C* is a list of "Recent Publications" including the most recent UDC editions and other publications on UDC and UDC-related topics. "Revised UDC Tables" include: a concordance of cancellations and recent amendments to the previously published revised schedules for Class 004 - Computer Science, the reinstated schedule for Class 531/534 Mechanics and the revised schedules for Class 566/569 + 596/599 Vertebrates.

Classification Research Group

The CRG held its 304th, 305th and 306th meetings on April 26th, July 12th and October 18th, 1996 respectively. As its major focus of current interest, CRG continues to discuss the development of, and revisions to, the *Bliss Bibliographic Classification*, second edition (BC2). At its April meeting, Editor, Jack Mills presented for consideration the outlines for the three separate fields which will make up volume 2 of BC2 - Class 2 Generalia; Class 3 Phenomena; and Classes 4/9 Prologomena to a general bibliographic classification. The purpose of the outlines was to consolidate the findings of various previous discussions so that the content and structure of the whole volume would be more or less finalized, thus bringing it into line with all the other as yet unpublished classes. The Generalia class presented few problems, whereas the phenomena and prologomena classes provided the bases for most of the discussion. At the July meeting a 10 page outline of BC2 Class DG Earth Science was considered. Topics discussed with respect to DG were: the enumeration of dependent processes under special parts; the process of "Deformation" (Class DJG) which is the central process of Geology; the problem of dependency and overlap between processes and structures; and the hierarchy of parts in the main facet. Tectonics and large scale structures and their place in the sequence were also debated and the difficulty of finding a satisfactory definition discussed. The culmination of the discussion was the suggestion that despite all the problems implied in earlier considerations, it might be simpler in the long run and in

accord with standard citation order and the inverted schedule to opt for a complete separation of the processes and structures facets. However, it was noted that in the case of Geomorphology this could result in some unsatisfactory separations. At the October meeting the principal topic for discussion was the Physics Class of BC2. At the July meeting attention was also drawn to an article by Steven Steinberg in *Wired* (May 1996) on the need for organizing information in the Internet. It was noted that the article makes justifiable criticisms of the library profession's addiction to 19th century models, but it displays almost complete unawareness of the developments in classification since 1945, thus giving little recognition to the work of the CRG and the importance of facet analysis in modern information retrieval systems.

ASIS SIG/CR

The ASIS Special Interest Group on Classification Research participated actively in the 59th ASIS Annual Meeting held in Baltimore Maryland, October 21-24, 1996. Prior to the main ASIS meeting SIG/CR held the 7th ASIS SIG/CR Classification Research Workshop. During the main ASIS Meeting a programme on indexing and abstracting was held and SIG/CR co-sponsored a number of programmes with other ASIS SIGs. The *Proceedings of the 59th ASIS Annual Meeting* contains the papers from the Indexing and Abstracting session and abstracts for the SIG co-sponsored programmes. A working copy of the Workshop papers was provided for the participants at the time of the Workshop and these papers will be published shortly under the title *Advances in Classification Research*, volume 7.

SIG/CR Workshop

During the one-day Workshop, eight papers on a variety of topics related to classification research were presented. Eileen Abels, University of Maryland, spoke on "Classifying the Questions of Small Business Owners: A Top-Down & Bottom-Up Approach". She described a project in which a classification scheme for business information was developed through question analysis of a set of business requests posed by small business entrepreneurs in the state of Maryland. Using online databases, searches were performed within the context of "a real-world contractual setting" while respecting "market standards of timeliness, quality and overall professionalism". Types of requests used included: literature on a given topic, lists of companies with their addresses, vendors of projects, patent and trademark information and identification of experts. Data were drawn from requests received over a period of a year. Existing classification schemes were examined and deemed to be unsatisfac-

tory for classification of the types of information needs identified. Hence the development of this new scheme which the author believes will serve to enhance communication between intermediaries and their clients, to enhance the understanding of user needs when combined with subject classification, and aid in the establishment of search parameters and the development of search strategies. The scheme itself is presented as an attachment to the paper.

Clare Beghtol, University of Toronto, had prepared a paper on her research on "Graphic Representation of Hierarchical Systems: Preliminary Study". The research looks at graphic presentation of hierarchical systems, using "visual arguments" presented in tree and circular diagrams. The paper includes an extensive bibliography and graphic examples of the works discussed. Among the representations of works included are those of Ranganathan (tree hierarchical diagrams) H. Bonheim's rendition of Stanzel's Typographic Circle, and the contributions of L. Rolling, I. Dahlberg, I. Silverman and T.V.H. Fitzhugh. The purpose of the study was to assess the "adequacy with which these different graphic forms convey the information they contain". The placement of different elements within the space of the graphic form and some of the devices used to orient and inform users were discussed. The author concludes that "aboutness" is a most important factor in understanding the diagrams. The viewer must know what the diagram is about, just as is the case with a reader of text. **Ron Davies**, Bibliomatics, Inc., Ottawa, Canada, described the possibilities and the issues involved in "Publishing Thesauri on the World Wide Web". The author assumes that thesauri might be made available on the web in two ways, either in "static" form in which all of the thesaurus information is written to the files at one time, or "dynamically" where the thesaurus information is retrieved from a database by a search engine and presented on the web pages at the time of retrieval. In this context, Davies explores some of the design issues and discusses methods by which users might consult such a thesaurus - methods which might be used to locate a term and display it. He concludes that the type of presentation for a thesaurus depends on the size of the thesaurus, search engines and gateways available, and also on the way users will locate descriptors, how much information the user will see displayed and the response time required. He believes that thesaurus publishers will react to the way indexers and searchers use the tools and that the results will have an influence on future standards for thesaurus organization and display. **Jolande Goldberg**, Library of Congress, addressed the question "Library of Congress Classification: Does Organization of Knowledge Need a Shelf?" Starting from the historic assumption that LCC is a shelving system, the

author discusses new possibilities for LCC "as a trans-class navigation tool for electronically-stored bibliographic information" for use in online systems. She traces the historical background of the LC Collections and their organization through three periods: 1) 1801-1861 terminating with the introduction of a new general catalogue; 2) 1861-1949, when changes were taking place in LC's treatment of the subject "history"; and 3) the final stage of development, in particular the development of Class K. The last section of the paper focuses on the electronic version of LCC and the changes which have resulted from this development. In her conclusion, Goldberg discusses the use of LCC as an online retrieval tool and a separation of the role of shelving and online functions. **Corinne Jorgensen**, University of Buffalo, focused on "The Use of Reference Points in a Sorting Task". Building on her earlier research she used theoretical perspectives of categorical perception to investigate similarity judgements in a pictorial environment and to develop a conceptual framework for exploration of the use of reference points in the sorting task. Two types of reference points - boundary reference points and prototype reference points - were considered in sorting pictures into categories. A paper by **Robert Korfhage**, University of Pittsburgh, and **David Dubin**, University of Illinois, described "Computer-aided Interactive Classification: Applications of VIBE". VIBE is a visualization system which permits human analysts to use both an understanding of a data set's content and the recognition of structure that the visualization reveals. Experiments with this system were able to support the claim that VIBE analysts can uncover meaningful clustering of phrases (or data concepts) even without semantic clues. A paper on the "Influence of Classification on Information Filtering", by **Javed Mostafa** and **Elin Jacob**, Indiana University, investigates the influence of document classification methods on information filtering using a filtering system called SIFTER which was originally developed to filter typical e-mail documents generated by Internet list servs and mailing lists. The study looked at three kinds of classification techniques with differing amounts of human involvement - a fully dependent mode of classification, a partially dependent mode, and an independent mode. Conclusions drawn suggested that - yes classification can improve filtering, but human dependent methods are costly. The purpose of the research was to compare trade-offs between classification accuracy and filtering performance. In the final paper, **Diane Vizine-Goetz** and **Jean Godby**, OCLC Office of Research, discussed "Library Classification Schemes and Access to Electronic Collections: Enhancement of the Dewey Decimal Classification with Supplemental Vocabulary". The system brings together the use of DDC,

LCSH and free text. In making their presentation, the authors focused on the expanding role of library classification in a network information environment. As evidenced by the titles the Workshop covered a very broad spectrum of research on the use of classification and particularly on possibilities for its future roles in the online environment.

SIG Co-Sponsored Programmes

There were three SIG co-sponsored programmes in which SIG/CR was involved. The first was a session which addressed the question "Browsing Online and in the Stacks: What is it and how can it be facilitated?" Four presentations were made. "Dimensions Characterizing Browsing" discussed the nature of browsing in a variety of contexts. While browsing is viewed differently in different disciplines, literature on browsing suggests there are underlying commonalities which could provide a basis for a multi-dimensional framework to facilitate a better understanding of browsing. Exploratory empirical studies had been carried out and those studies used to support a set of parameters for describing browsing activities. "Tending Our Pastures: A Decade's Worth of Research on Browsing Fiction Collections" looked at the browsing behaviour of public library patrons and suggested strategies that librarians might use to refine and improve access for browsers. "A File Definition of Browsing" considered browsing in the context of file structure and described it as "a file movement not knowing either a route to desired records or not having a destination of an access field". The fourth presentation, "Browsing: Not Lazy Searching" approached browsing as a form of information seeking and identified and described several browsing strategies including scanning, observing, navigating, monitoring and exploring. Browsing was viewed as being under-supported in today's information systems and suggestions were made for systems design that would better support the process.

A second co-sponsored programme looked at "Social Impacts of Digital Libraries" and drew on the key trends and issues that emerged from the National Science Foundation sponsored UCLA Workshop on this subject held in February 1996. An introduction was provided to set the context for the programme with a focus on the understanding that digital libraries represent a set of significant societal problems that require human and technological resources to solve. Two definitions of digital libraries were identified – digital libraries as "a set of resources and associated technical capabilities for creating, searching and utilizing information" and digital libraries as "virtual communities in which individuals are groups interacting with data". Following the model set by the original

workshop, the remainder of the programme dealt with a general model of the life cycle of information and three themes of research issues – human-centred, artifact-centred and technology-centred research issues. The third co-sponsored programme considered "Icons and the Web: Communicating Classification Structure Through Graphics." Three presenters addressed the design of graphic Web browsers from different perspectives: "The Design of Ecological Interfaces for Web Browsers" or how to provide all kinds of users with the support of a virtual ecology in icon-based interfaces for searching the web; "A Frame Work for Image Indexing Based on Free Description", or how to create a framework for coupling between text and pictures on the Web, via identification of higher level attribute classes for images; and "Communicating Concepts and Classificatory Structures Through Graphics on the Web" – in other words, how to create a graphic vocabulary that can reveal the classificatory structure of document collections to a Web User.

The Indexing and Abstracting Session during the main ASIS Meeting included three papers. **Timothy Craven**, University of Western Ontario, described "An Experiment in the Use of Tools for Computer-Assisted Abstracting". Experimental abstracts were written using TEXNET abstracting assistance software. The 35 abstractors were given full text plus keywords or phrases extracted automatically from the text. Times for abstracting were recorded automatically and additional information collected by oral questionnaire. 37% of the abstractors found the keywords or phrases "quite" or "very" useful in writing the abstracts. Data were also collected on the correlation between experience and originality of wording, approximation to the previously created author abstracts and degree of conciseness. Results also suggested the need for modifications to the software. **Corinne Jorgensen** presented a paper on "Indexing Images: Testing an Image Description". Building on previous research she tested a template for image description to be used by naive image searchers in recording their descriptions of images. The classes of attributes used in the model were derived from her earlier research. The results showed that searchers may need more guidance than that provided by the template and that it might be more useful to indexers in making decisions on what to index. In the third paper, **James Turner**, Université de Montréal, described the preliminary results of his research on "Cross-Language Transfer of Indexing Concepts for Storage and Retrieval of Moving Images". This research has its origins in a research project which used data in English. A French language version of the project was prepared using the same images as were used in the English version and data were collected in French.