

## Feature

# Interview with Ingetraut Dahlberg December 2007

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### 1. Please tell us a bit about your educational and work background. What got you interested in the field of knowledge organization?

In 1962/63 I went through a one-year course, organized by the German Documentation Society (DGD) with the aim to become a scientific documentalist. The course was held at the Gmelin Institute because there did not yet exist a university or polytechnic school for teaching Documentation (later called Information Science). We learned, among other things, to understand and apply the *UDC* as well as also the *Colon Classification* and of course indexing by subject headings or keywords. After this course I was asked to take care of the book collection at the headquarters of the DGD in Frankfurt and to establish a documentation center there. I did this until 1964. I found among the books the proceedings of the famous 1958 International Conference on Scientific Information (NAS/NRC) as well as the 1959 International Conference for Standards on a Common Language for Machine Searching and Translation. I encountered for the first time the term "thesaurus" in a paper by A.F. Parker-Rhodes and in a paper by M. Masterman, R.M. Needham and K. Sparck Jones. This inspired me to construct—according to my own ideas—my first thesaurus in the field of documentation.

### 2. Originally, you were very active in the German classification community. When did you start to collaborate/confer with colleagues in other coun-

tries? Can you name a few influential colleagues (or organizations) from outside the German community who were of particular influence?

In 1964 I was offered a position for a year as Research Associate at the first university library in the US which had a computer for its use, Florida Atlantic University at Boca Raton, Florida. Ed Heiliger, one of the authors (along with Schultheiss and Culbertson) of *Advanced data-processing in the university library* (the famous "Silver Book"), was the library director. Jean Perreault and I had the chance to work on the problems of categories and relators, based on the seminal work by Eric de Grolier's book *A study of general categories applicable to classification and coding in documentation* (UNESCO 1962). At the end of that year I made a round-trip through the US, from Florida via Texas to Los Angeles, San Francisco, Yellowstone Park, Mount Rushmore, Chicago, Cleveland, Albany, Boston, New York, and Philadelphia. I visited the major documentation centers along the way, thereby getting acquainted with quite a number of well-known colleagues in our field of information science such as Don Swanson in Chicago; Jessica Melton, Barbara Denison, Jesse Shera in Cleveland; Calvin Mooers in Cambridge/Boston; Pauline Atherton in New York; Gene Garfield in Philadelphia; and Claire Schultz in Lexington, Pennsylvania. I had already met some of these colleagues at the ADI (later ASIS) Conference in Philadelphia in October 1964.

After my return to Germany I was made director of the Library and Documentation Center of the DGD with a number of collaborators (5-7) and a good annual budget for buying books and collaborating with other institutions such as the German Institute for

Standardization (DIN) with its Committee on Terminology. In the following years, I also developed a descriptor system for our documents on documentation which could be understood as sort of a systematized thesaurus. In 1968 I was asked to chair a *UDC* committee on the revision of classes 03 and 04 to be devoted to documents and documentation. Later on I compiled a faceted classification system for kinds of documents. In 1969 I was made a member of a small Working Group on classification, headed by D. Foskett, in order to outline the needs for this field in the UNISIST program, to be established in 1971. Jean Claude Gardin was the author of UNESCO's UNISIST Report, which contained also the request for a Broad System of Ordering (BSO). In 1972, at the Budapest meeting of the Federation Internationale de Documentation (FID), a BSO-Working Group of the Classification Research Committee was established, with which I collaborated until 1974. I brought into this group my collection of subject fields and tried to convince its members of the findings of my dissertation. However, the FID/UDC Committee had likewise established an SRC-Group (Standard Reference Code) to serve as a BSO and since their solution of a centesimal notation was—in a decisive FID meeting at The Hague, 1974—to be combined with my solution, I saw no future for such a monster-system. Thus the FID groups were dissolved and a small 3-person team was to develop a result.

In 1970 I left my position at the DGD and became a consultant for two years for an Interministerial Working Group for Databank Systems in Bonn. At the same time I began working on my PhD in Philosophy at the University of Düsseldorf under Prof. Diemer. My dissertation was entitled (translation from German): "The universal system of order, its ontological, science-theoretical and information science foundations," which was published in 1974 with the (translated) title "Foundations of universal order of knowledge." In the same year I started the journal *International Classification* with Professors A. Diemer (Germany), J.M. Perreault (US), A. Neelameghan (India), and E. Wuester (Austria) as co-editors. It also had an international scientific consulting board.

### 3. What prompted you to start the journal *International Classification*?

It was for me sheer necessity, as I had all the experiences and the contacts necessary for such an undertaking. During my work at the DGD Headquarters I had also been involved in writing the abstracts and

editing the current bibliography of the documentation literature for the DGD-journal *Nachrichten für Dokumentation*. It was at the German National Library Conference in Hamburg 1973 that I met the publisher of my book, Klaus G. Saur and asked him, "What about starting a journal on classification?" To my surprise he immediately said, "Yes, outline your intentions and I will see what we can do." So I did and the contract followed soon. In the first years we had just two issues, later on three and thereafter *IC* became a quarterly.

### 4. How did ISKO get started?

ISKO has had two prehistories: At the FID Congress in Washington DC, Oct. 1965, I met Prof. Arntz, Chair of the DGD and some German colleagues (among whom Dr. Fugmann) and Arntz asked me about my one-year-experiences in the States. I advised him that it seemed to me highly necessary to establish a Committee for Thesaurus Research. He was very open for this suggestion and immediately after returning to Germany, already in November 1965 this Committee was established in Frankfurt with Prof. Martin Scheele as its chair and me as its secretary. Soon we decided to compile a book on thesaurus construction and each of the members wrote one of its chapters. After a year, Dagobert Soergel joined the Committee and Prof. A. Diemer became its Chair. Mr. Soergel was willing to compose a coherent book out of the somewhat differing styles of our chapters and the book, published by the DGD, became a best-seller in Germany. In 1973 Soergel began teaching at the University of Maryland and in 1974 he published a quite enlarged version of the previous German book in English (*Indexing languages and thesauri: Construction and maintenance*), also a bestseller. Our work in the Thesaurus Committee continued and we took influence on the German Thesaurus Standard and discussed questions of General Terms and Relationships. However, there were disturbances coming from some people in the 1968 student protest movement and our work was severely hampered. Thus, on February 12, 1977, the German Classification Society was founded by M. Scheele (biologist, having created an automatic indexing system and a faceted thesaurus system in biology), R. Fugmann (chemist, who had created GREMAS, a very intelligent machine system for coding the elements of molecules and invented TOSAR, an indexing system for the contents of statements), H. Bock (a mathematician, who had published in 1974 a big volume on Numerical Classification), as

well as Dr. Schön, a librarian, and an economist. I (philosopher and somehow a universalist) convened the meeting; the sons of Prof. Scheele and Dr. Fugmann plus my son were also present. The election for the chair of the new Society fell unto me, reelections kept me in this position until 1986, when Prof. Bock took over with me as deputy until 1989. In the elections of 1989, all of a sudden the mathematicians in our Society won the majority and Dr. Fugmann and myself were so-to-speak kicked out of the Executive Board. What to do now for the non-mathematical part of the Society which comprised 100 of the 200 members altogether? Fugmann decided to create a new society and I decided then it must become an international one. Thus, with the enthusiastic agreement of the IC scientific advisory board, on July 22, 1989, in the middle of vacation time, enough colleagues—among them the Indian librarian Padmini Raj and the Hungarian KO expert Rudolf Ungvary—came together to discuss the statutes and to found ISKO in the same restaurant of the Frankfurt Main Station as the group had founded the Classification Society 12 years before.

##### 5. How did you move from “classification” to “knowledge organization” as the term to describe your field of endeavor?

The founding assembly decided not to use “classification” any longer because of the numerically-oriented classification societies. Since the term “order,” as used in the title of my dissertation would imply in English also another connotation, we first thought of using “organization of knowledge” as Bliss had done in his two books. But since this sounded a bit too long, we created the term “knowledge organization,” perhaps strange in English, but a direct translation from the German “Wissensorganisation.” We thought, let us see whether it gets accepted, and it did. Nevertheless our field of endeavour is conceptual classification, as well as of course concept theory, concept indexing, concept representation/terminology.

##### 6. Why did the name change from *International Classification* to *Knowledge Organization* lag the founding of ISKO in 1989 (the name change did not take place until 1993)?

IC was published from 1980 on in my own publishing house, INDEKS Verlag. At the first ISKO meeting I gave it to ISKO as its official journal. I wanted to have the vote of the Membership Assembly on the name

change from *IC* to *KO*. Although we had our first International Conference in 1990 in Darmstadt we forgot at that Assembly to bring this name change into the discussion. Thus it was only in August 1992 at the next International ISKO Conference at Madras that the change was approved, and the new name of the journal started with No.1/1993. In 1997 I sold the INDEKS Verlag to the ERGON Verlag, Würzburg.

##### 7. Tell us a little about the philosophy behind the Information Coding Classification. How many iterations has the ICC gone through? Has it been updated to reflect scientific/societal changes? Does it have an advisory board? Are others working on the system? Has the system ever been implemented in practice?

There will be an article of mine in the forthcoming special issue on “Facet Analysis” of *Axiomathes* (2008n2/3), a philosophical journal edited by Prof. R. Poli, Italy, which will tell all about this question. To summarize: ICC is a fully faceted universal classification system of knowledge fields based not on disciplines but on universal ontical levels. It has fixed system positions at which interdisciplinary and transdisciplinary relationships to other fields of knowledge can be established according to a given rule. It also provides intra-relationship possibilities, i.e., combinations necessary for the expression of logical sentence structures within a field of knowledge. Its notation is decimal, starting with nine ontical levels and nine given aspects. So far it has been elaborated for some 7000 fields of knowledge which were extracted from 12,500 names of such fields, which turned out, after listing their definitions, either to be synonyms or names of fantasy fields. ICC has not as yet been developed further to list objects or activities or properties. It is still in the form I gave it 1979. In 1992 I added a categorical heading line on top of the screen-like presentation. A few additions have been made in the lower hierarchies during my using it for the systematic display and the indexing of the 3 volumes of the *International Classification and Indexing Bibliography (ICIB-1-3)*, 1950-1982 (INDEKS Verlag, 1985). ICC has no advisory board and nobody is working on it at present, but it has been used in a number of INDEKS publications and is still used in the current bibliography of KO for the subject indications at positions ending with 8. The classification system for this bibliography has been established using the principles of the ICC. This has been described in the article “Knowledge organization – a new science?” in *Knowl-*

edge Organization 33: 11-19. (*Guest editors' note: This 2006 article, a translation and slightly revised version of a paper presented by Dahlberg in 1994, includes additional background information on many of the topics discussed in this interview.*)

**8. You have outlined a strong case for the treatment of KO as a discipline. What needs to happen in the field for it to gain widespread acceptance as a scientific discipline? What are possible threats to the field?**

The widespread acceptance of KO, although mixed up by some people with Knowledge Management, implies that it be moved out of its present place under "classification and indexing" in LIS establishments, where it is even sometimes neglected because of the new Internet possibilities. National research organizations should recognize that the conceptual development of our knowledge must be furthered by collaboration between the scientists and experts of every subject field, terminologists and KO trained experts. Only if this new science can be regarded as a field of scientific endeavour, will it receive the reputation which it deserves. Therefore, institutes of knowledge organization ought to be established where work on the definition and systematization (establishing the correct system positions of each concept) in a given field of knowledge can take place.

**9. Do you have a research agenda wish list for the KO field?**

Yes, I have such an agenda in my head, but I would not let it go out now. It must wait until the first Institute for Knowledge Organization (as mentioned under 8 and in my article in KO 33/1) will be established on a national basis, either at a university or as an independent institution. At the beginning of 2007 I wrote to 3 leading German research institutions on this matter. None of them was able as yet to understand the necessity of such an undertaking. Thus we

must wait, but we should be prepared in having trained KO experts for such a task. So far I would like to suggest three items to be accomplished soon:

1. To establish an ISKO Working Group to outline the necessary knowledge which a KO Expert should possess. After acceptance of the results by the Executive Board and also the Scientific Advisory Council this might be recommended as a curriculum to be published worldwide and possibly implemented either in an own academy-like institution or in an Institute for Knowledge Organization. ISKO should recognize its responsibility for the standards to be set in this regard and set up also a group of experts for the necessary examinations.
2. Another very important ISKO Working Group should deal with the neglected KO terminology, past, present and future. ISKO is about to become a worldwide family which should speak in one tongue of well-defined concepts and their terms, at least in English. Only through the help of definitions will translations into other languages become possible.
3. We neglected the intelligence of the colleagues in countries with lower salaries than in the West. Therefore I would like to suggest to find out, what would be the maximum in terms of membership fee which a colleague, say in Russia or Poland and the other Eastern states or India or China or Africa or South America could pay. With this result one might be able to lower the fee for such colleagues so that Chapters could also be established or reestablished as we had them until 1996. I think with the fees of 400 full paying members ISKO could carry at least 200 members who pay less and receive the journal in bulk for distribution to the chapter members in the respective countries. The latter is of course a sine qua non, as postage plays an enormous role as long as the journal is distributed from Germany. Here our economists would have to use their expertise.