# IFIP'S TECHNICAL COMMITTEE ON INFORMATION SYSTEMS

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I have received a number of requests for more information about IFIP activities that might be related to the interests of the HCI community. To help present a picture of some of what is going on within IFIP, I asked Gordon Davis from the University of Minnesota to provide me with a brief description of the activities of the Technical Committee that he chairs. I think that his picture of the activities and history of TC8 will be of interest to many in the SIGCHI community. I want to thank Gordon and Jack Rosenfeld (Editor of the IFIP Newsletter) for providing me with this information.

IFIP's Technical Committee on Information Systems (TC8) comprises a large community of scholars grappling with complex, multifaceted problems, both theoretical and applied, that are often nearly impossible to define or specify. Prof. Boerje Langefors (Sweden), the first chairman of TC8, was one of the first to use the phrase "information system" in relation to the complete activity of gathering, processing, and storing data in order to create information useful to an enterprise (organization). However, Prof. Alex Verrijn-Stuart (Netherlands), the second chairman of TC8, notes, "For want of agreement of what constitutes an IS, there is no central, unified set of theorems, although many theoretical contributions have been made."

The heritage of IS in IFIP lies in the world of databases. As applications and theory in this area grew in the 1960s, so did awareness of the importance of an enterprise's data. It was recognized that such data would be more valuable for advancing the goals of the enterprise if the information were viewed in its totality rather than as a collection of individual components. In the 1970s, a group of IFIP participants, mostly from the Working Group on Database (WG2.6), decided that it was time to extend the IFIP activity on understanding and structuring databases to activity concerned with the use of databases by enterprises. Prof. Langefors was involved in these discussions and proposed (to the surprise of many in WG2.6) a new Technical Committee to tackle these problems. Ultimately, TC8 was founded in 1975.

The first TC8 working conference was held jointly with IFIP's TC3 (Education) in 1977, with the goal of developing a model university curriculum in IS. Not only was a curriculum developed, but the nature of IS was further explored.

Shortly after the founding of TC8, its first two WGs were created: WG8.1 on Design and Evaluation of Information Systems (1976) and WG8.2 on Interaction of Information Systems and the Organization (1977). The former deals primarily with the formal, theoretical aspects of IS, while the latter stresses the relationship of IS and the social and organizational aspects of enterprises.

One major effort of WG8.1 is the Comparative Review of Information Systems Design Methodologies (CRIS), an initiative of Dr. T.W. (Bill) Olle (Great Britain), which has extended over more than a decade. It compares the large number of methodologies for the design of IS and their often conflicting claims. The CRIS group initially set out to discover what methodologies existed and to compare them in terms of their application to one specific design problem (organizing an IFIP working conference). The first CRIS conference, held in May 1982, resulted in the book *Information Systems Design Methodologies: A Comparative Review* (still in print and with more copies sold than any other IFIP conference proceedings), which described thirteen characteristic methodologies and how they would be applied to the test problem. Subsequent CRIS conferences added methodologies and discussed additional aspects.

Also, a WG8.1 task force named Framework of Information System Concepts (FRISCO) has discussed the conceptual foundations of IS and the different approaches to it, and has organized conferences on this topic. Having published an interim report in 1991, the task force plans to produce a comprehensive document that may be of use to students, teachers, practitioners, and researchers.

WG8.2 continued to discuss the difficult problems associated with introducing IS into organizations. They also questioned the nature of IS research based on traditional methods. The research issue was clearly described by Prof. Enid Mumford (GB), a past chairman of WG8.2, who wrote the following:

There are two opinions on methods of Information Systems research. Some wish to strictly adhere to methods of re-search developed within the natural

sciences, and see these methods as the sole source of valid results. But there are also those who advocate other methods, such as the investigation of personal experience, values, attitudes, distortions, etc. This group believes that no amount of "scientific" research can assist the understanding of how computerized information systems are related to the human action that is involved in their development and use.

To highlight its attitude toward "scientific" research, WG8.2 named its 1984 colloquium (in Manchester, U.K.) "Information Systems Research Methods – A Doubtful Science."

While this debate over methodologies took place, additional activities related to IS applications were occurring in TC8, and new WGs were being formed. WG8.3 on Decision Support Systems was chartered in 1981 to develop approaches for enabling decision-makers, using IS technology, to make enlightened, effective decisions. Its initial activities were directed toward individual decision-makers, but it has evolved to study systems that support group decision-making and negotiation.

WG8.4 on Office Information Systems was founded in 1986. It studies means of providing assistance to professional workers in an office environment in which communication is an essential element. The emphasis is on "co-working," which leads to various organizational models in which activities such as "computer-supported cooperative work" and subjects like "groupware" and "the portable office" are debated.

The WG on Information Systems in Public Administration (WG8.5), founded in 1988, deals with IS at all levels of public administration, from local agencies to international organizations. Although governments have most of the IS needs of other enterprises, WG8.5 stresses the relationship between IS and the individual citizen, and it concerns itself with broad social goals.

There is a great deal of overlap and cooperation among the TC8 WGs. In addition to the open conferences sponsored by TC8, conferences sponsored jointly by its WGs are held. Furthermore, TC8 promotes regional and international cooperation. For example, it is a cosponsor of the International Conference on Information Systems (ICIS), a major international conference of IS academics.

During the evolution of TC8, the chairmen have provided direction – geographic as well as technical and administrative. Prof. Verrijn-Stuart, who succeeded Prof. Langefors, was instrumental in developing the organizational structure of TC8 and in forming new WGs. Prof. Giampio Bracchi (Italy), the third chairman, added not only geographic scope but connections to the community of researchers into very large databases. His successor and the current chairman, Prof. Gordon Davis (USA), is one of the founders of the first graduate program and research center in IS in North America. He has provided leadership in extending North American and Pacific-rim participation in TC8.

A unique aspect of the TC8 field of endeavor is that IS practitioners are both designers and users of information systems. (They are users in the sense that today's program-development environments, used to develop complex systems, are information systems themselves.) Prof. Davis believes that TC8 can play a pivotal role in IFIP, since this dual capacity of IS enables it to relate to virtually all the IFIP areas of activity. He also feels that the international composition of TC8 makes it uniquely qualified to bring together a truly international body of renowned experts – from industrialized and nonindustrialized countries, from academia and industry – to tackle the problems of IS.