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49

Interactive Systems

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Edited by A. Blaser and C. Hackl



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PREFACE

During the last years the topics of IBM Germany's Informatik Symposium changed from computer systems subjects to the problems of computer users and computer applications.

This change in symposium subjects follows a general trend in data processing towards providing computing capability to users who generally are not data processing specialists. New approaches for programming, more intelligent peripheral units through local programming, and price performance improvements in hardware allow an offering of computer services to users who have little interest in anything but the results they require.

Following this trend, the 1976 Informatik Symposium was devoted to interactive systems. The following are just a few reasons for this choice:

1. Continuity of the symposium subjects: interactive systems are closely related to the data base topic of the 1975 symposium. Many subjects covered last year are prerequisites for the interactive use of programs, as for instance the parametric use of DB/DC based application programs, the development of data manipulation languages etc.
2. Actuality of interactive systems: Today, a large number of interactive system products exist. The IBM products CMS, TSO, ETSS, VSPC, and APL, are only a few examples. Because of the variety of underlying concepts and implementations, it is certainly worthwhile to investigate the present state in this field from a system user's as well as from a system designer's point of view.
3. Trends in application development: There is an increasing tendency in data processing for using standardized application programs in which many options, decisions and functions are preprogrammed. The user of such programs is prompted by the system to select from a number of options at certain points during the program execution. Such a development, however, imposes many questions to the computer scientist. Very likely, it is the field of interactive systems

where computer science can develop the strongest interactions to other disciplines.

4. Mission of the IBM Scientific Center at Heidelberg: The main projects in the center are closely related to the symposium subject. Application development concepts for endusers, interface problems, and problem solving techniques for application experts with little data processing experience are within the responsibility of the Center. We expected that the symposium would give stimulation and critique to our work in this field.

According to our assessment of the symposium subject, the agenda is structured in a system and a user oriented part. After an overview about interactive systems, the first two sessions cover problems in the design and management of interactive systems. The third session centers around questions within the area of application development. Program development by endusers, personalized computing and behavioural issues in man-machine communication are central subjects. In the fourth session examples of the application of interactive systems are given in the area of educational systems, product development, method and data base evaluation, transaction system, and planning systems. The closing session is devoted to the increasing demands on transmission networks and communication facilities as vital parts in future systems.

The symposium was organized by the Scientific Relations Department of IBM Germany and sponsored by IBM Germany and IBM Europe. The editors would like to express their gratitude and appreciation to the sponsors, to all the lecturers, and to the many contributors within and outside of IBM who gave advice and assistance in preparing, organizing, and running this symposium.

Stuttgart, December 1976

C. Hackl

A. Blaser

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