the computer in the doctor's office

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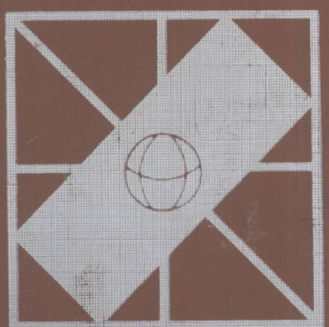

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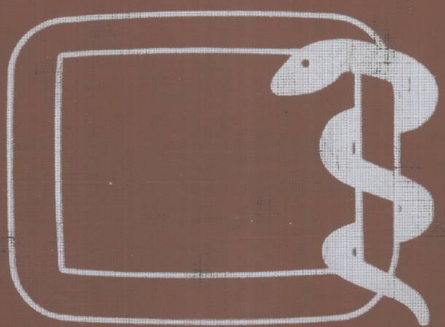

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THE COMPUTER IN THE DOCTOR'S OFFICE

Proceedings of the IFIP-IMIA (TC 4) Working Conference on
The Computer in the Doctor's Office
Hannover, West Germany, 25-29 April 1980

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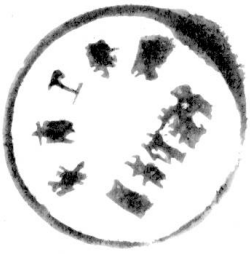

1980

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"PROCEEDINGS ARE A MUST ....."

OR: PREFACE OF THE EDITORS.

In 1973, the IFIP Policy on working conferences formulated the right of the scientific community at large to share the results of IFIP's work "...well edited and early available proceedings therefore are a duty and the editor is an important person ...".

We felt that we were bound to honour this commitment and therefore decided to focus our effort on early publication rather than on late perfection. Because of the highly relevant theme of the conference we hope to have the proceedings published for the MEDINFO conference in Tokyo 1980. We thank our colleagues who have supported our approach and we are especially grateful to the publisher for performing his part so well.

The use of information technology in primary health care environments has proved to be of even more significance than the introduction of computers into hospitals fifteen years ago. Its impact on structure, organisation, and patient data privacy within the health care system may well prove to be far larger in this field than in the hospital. We are at the threshold of a new and exciting development. This makes it all the more important that those working in this field, particularly vendors with a product to sell, do not fail to appreciate that only general transferable solutions have a chance in the long term. Todays systems must tackle administrative and medical functions at the same time; one is no good without the other. But even where there are so called final solutions for the administrative demands at a local level, research has a long way to go before there will be any generally accepted solutions on a national basis. Further questions arise in such spheres as education, legal methods and especially the condensation of long term medical documentation; answering these problems will need many years of scientific analysis and discussion.

We confidently anticipate, from the papers published in these proceedings, that the mutual development of primary care medicine and information technology will yield as many exciting insights as there have been during the rise of hospital information systems in the past decade.

April, 29th 1980

O. Rienhoff
Hannover, FRG

M.E. Abrams
London, U.K.

P.S. We suggest that if, before reading all the papers, you wish to gain an overview of the meeting, you should look at the opening speech, the rapporteurs' reports on the sessions and the concluding speech.

INTRODUCTION ON BEHALF OF THE INTERNATIONAL MEDICAL INFORMATICS ASSOCIATION

J. ROUKENS, IMIA Chairman
Arnhem, The Netherlands

In 1975 a Working Conference with the provisional title:

The Computer in the Doctor's Office

was proposed at an IMIA (then T.C.4) meeting. At that time, very little had actually been achieved in the subject. Some projects had even been abandoned because of excessive costs or inadequate technology. The ideas however about what should be done seemed quite clear, and the IMIA assembly had no objection to accepting in principle the proposal to organise the conference.

It was not foreseen that its realisation would take 5 years. This delay was partly due to the time lags inherent with every international project of this kind, and on the other hand to the lack of system implementations and practical experience.

As a consequence of the rapid decline of small systems' costs during these years, the situation has been drastically changed. Only few informed people can be found today who do not believe in the widespread use of computers in doctors' offices within 5 or 10 years. And it is a fact that the number of information systems installed in doctors' offices is several thousands worldwide. Thus one can say that the conference was timely and certainly not too early.

The importance of doctor's office automatic information processing is a consequence of the position of the physician as the principle decision maker in health care. The gap between the front of medical information systems development and this nerve center of the care delivery system is diminishing. To provide the doctor with timely and comprehensive information to support his decision making has been the dream of many medical informaticians and many care providers - even when they seemed to be absorbed with the problems of financial and logistic information.

In recent years another factor of relevance has been added. It is the very greatly increased importance of the primary health care sector in both non-industrialised and industrialised countries. Because of the generally small practices in primary care the administrative problems there are not excessively great, and consequently the potential for implementation of cost effective processing of medical data is relatively great. IMIA attended the 1978 WHO Alma Ata Conference on Primary Health Care with a strong delegation. Although the promotion of the primary health care concept is oriented towards bringing good health care to the poor and less privileged, and towards making health care as a whole more cost effective, IMIA considers appropriate information systems as a prerequisite for the achievement of such

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goals. Particularly when a reduction of data handling costs can be achieved and use of resources can be made more effective.
The conference on the Computer in the Doctor's Office is held at the right time, at the right place, organised by the right people. The organizers in Hannover and all those who supported the conference in so many ways deserve our deepest gratitude. No doubt, in the future we will look back at this meeting as the first milestone along the path towards comprehensive information systems for doctors.

WELCOMING ADDRESS OF THE CHAIRMAN OF THE ORGANIZING COMMITTEE

Prof.Dr. P.L. Reichertz

Dear Participant

On behalf of the Organizing Committee I extend our most cordial welcome to you.

Hopefully our meeting in Hannover will help us to find and refine ways to support ambulatory care by means of information technology. The increasing amount of information as well as the cost of health care delivery are a challenge to the analytical methods and constructive efforts of medical informatics. It is our ambitious hope that this conference will present a broad review of the state of the art of what is possible today, what has to be done and what will be useful tomorrow.

In the 'shadow' of the famous Hannover Fair we hope to bring together participants from research institutions, clinical medicine and industry as well as from administration for a dialogue on the broadest possible basis. Computer technology has been presented during the last week on the Fair; analyses, concepts, design and evaluation criteria will be our topics in order to make hardware a useful tool for practical medicine. Of particular emphasis will be the concern for the user and the human problems involved in the confidential relationship between patient and doctor.

Besides a fruitful conference, I wish you a happy stay in Hannover. Please try to find some of the particularities and attractions of our city. There are quite a few. Besides the attractions of Hannover itself; for those who are interested in technology generally I would like to point out the international aerospace exhibition and show which takes place during the time of our conference.

So please combine work and recreation, learning and visiting expositions, sights and museums to what hopefully will be rewarding memory of your stay in Hannover.

WELCOMING ADDRESS OF THE CHAIRMAN OF THE PROGRAM COMMITTEE

Prof.Dr. J.R. Moehr

Ladies and Gentlemen

It is my pleasure to welcome you at our conference on behalf of my colleagues of the program committee. I would like to take this opportunity to thank them for their ideas, their help and support that shaped this conference.

The basic idea of this conference is that of a typical IMIA working conference:

To invite contributions from international specialists who excel in a particular field in order to arrive at an overview of the state of the art and to develop guidelines for those responsible for development and constructive change in the field.

For this purpose we invited an international selection of renowned specialists to contribute their experience with well defined aspects of computer applications in physicians' offices.

These suggestions were checked with the chairmen of each working session and moulded into the composition of the final program that is now presented to you.

At the same time, we strived to avoid the danger of creating a scientific ivory tower by opening the conference to a selected public. Great emphasis will be laid on discussions at this conference. Their results will be summarized by rapporteurs and presented at the concluding session as well as included in the conference proceedings. I trust that these decisions will provide us with a basis for further constructive work for the ultimate benefit of our patients and of the doctors who care for them.

Finally, it is a personal pleasure for me to be back in Hannover, where I spent many years of stimulating and enjoyable work as an associate of Professor Reichertz, without whom this conference would not have come about.

His efforts realized an amount of support which is quite unusual for this type of a conference. His associates under the guidance of Dr. Rienhoff, one of our editors, coped with the thousands of larger and smaller problems that organizing this type of a conference entails. So let me conclude by extending my sincere thanks to Prof. Reichertz and the local organizing staff for their excellent work in preparing this conference.

ORGANISING COMMITTEE

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PROTOCOL
OF THE INITIAL MEETING OF AN IMIA WORKSTUDY GROUP
ON
AMBULATORY CARE INFORMATION NEEDS

J. Roukens (Arnhem, The Netherlands), Chairman IMIA, opened the meeting which was attended by 14 participants of the working conference 'The computer in the doctor's office'. He pointed out that work-study groups are intended to yield continous scientific exchange in contrast to working conferences which are occasionaly events. He emphasised that apart from administrative support, no money is available for work-study groups on behalf of IMIA. He said four groups would be operational now (education, data protection, technological aspects, EEG analysis). Experience had shown that well defined aims are absolutely necessary for successful work . He asked Prof. Reichertz to present his proposal for the inauguration of a new work-study group.

P.L. Reichertz (Hannover, FRG) outlined possible fields of interest, as e.g.:

1. The definition of ambulatory care needs
2. System analysis of ambulatory care
3. Standardization and systematization
4. Care profiles
5. Assistance to clerical and administrative procedures
6. Planning comprehensive care
7. System construction aspects
8. Legal aspects.

Reichertz asked for a further meeting at the MEDINFO conference at Tokyo. He stressed the point that membership of the work-study group should be strictly limited to those who really wanted to work together. He therefore invited written working plan suggestions from future participants which would be promptly answered.

Finally there was a brief discussion on whether the group should subspecialise according to local interests, and also whether regional interest groups could be formed to reduce travel costs.

April, 28th 1980

O. Rienhoff
Hannover, FRG

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OPENING SPEECH

Vuori, H.

Development and Information Needs of Primary Health Care in Europe

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DEVELOPMENT AND INFORMATION NEEDS OF PRIMARY HEALTH CARE IN EUROPE

Hannu V. Vuori

Regional Officer for Primary Health Care
Regional Office for Europe
World Health Organization

"Poor care for poor people" and "the key to the attainment of better health for all"; this paper analyses primary health care - the subject of these diametrically opposed views - from three angles. First the principles of primary health care contained in the Declaration of Alma-Ata are described and their relevance for the industrialized countries examined. The second part consists of a description of the current trends in Europe paying special attention to WHO's role. The last section is devoted to an analysis of the information implications of these trends.

PRIMARY HEALTH CARE IN THE LIGHT OF THE ALMA-ATA DECLARATION

For many people primary health care, and particularly the current emphasis on this concept, are synonymous with the Declaration adopted by the International Conference on Primary Health Care arranged in 1978 by the World Health Organization and UNICEF in Alma-Ata. The Declaration clearly identifies primary health care as the first priority in the future development of the health care systems of all countries and as the main strategy to attain WHO's policy goal of "health for all by the year 2000". This goal, adopted by the World Health Assembly in 1977, sets as a main social target of governments and WHO in the coming decades the attainment by all citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life.

Both the ultimate goal and the strategy have been criticized. It has been claimed that the Declaration sets forth a number of pious hopes that run counter to our knowledge of human nature and its biological evolution (Passmore 1979). Dr Mahler, Director-General of WHO reportedly replied to such criticism by referring to two other major policy goals, viz. "liberté, égalité, fraternité" and "Proletaren aller Welt vereinigt euch". Nobody claims that these goals have been achieved but does either deny their profound worldwide impact. It is to be hoped that the goal of "health for all by the year 2000" and the related primary health care movement will stimulate similar activity and will have as great an effect in the health field.

Principles of primary health care

The Alma-Ata Declaration (WHO and UNICEF 1978) defines primary health care as follows:

> Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community

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