

## Preface

Mobile computing has grown to a widespread phenomenon, at first in private areas with mobile phones and handheld computers. In the meantime, even medical applications are increasingly appearing in diverse settings. In order to bring together developers and users, patients and physicians as well as scientists and industrial partners, a project group named "MoCoMed" ([www.mocomed.org](http://www.mocomed.org)) in the organisation of the GMDS (German Society for Medical Informatics, Biometrics and Epidemiology) was founded in August 2000. With the title "Mobile Computing in Medicine", its second conference was held in Heidelberg, Germany, on April 11, 2002.

It was organized as an international workshop to address a broad audience. The workshop language was English. The speakers came from Brazil, Finland, Switzerland and Germany. The workshop was part of a conference on hospital information systems organized by the Institute for Medical Biometry and Informatics, University of Heidelberg.

This proceedings address all who are interested in the state of art in research and development in the field of mobile computing in medicine and offers an overview of the wide range of applications of mobile tools in the healthcare system.

We divided the contributions into four categories:

- General Considerations
- Mobile Management of Pictures
- Hospital Environment & Industrial Solutions
- Mobile Homecare

In this proceedings we will show that mobile devices will play an increasingly important role in our hospital information systems as in the delivery of medical care. Hence, the discrepancy between technical possibilities and practical use of mobile technology surprises. In daily life portable communication tools are already taken for granted, as we send SMS (Short Message Service) and surf the internet via WAP (Wireless Application Protocol). Imaginable application areas of mobile communication in healthcare are manifold, real practical applications are still sparsely. While being in the process of development, applications which are easy to use, adopted to personal belongings and the needs of the special profession are essential. Aside of the above mentioned, information supply is on the top of the list. Improved and secure data transfer rates (e.g. UMTS) or a general implementation into a universal communication network (e.g. Bluetooth) will ameliorate the range

of function in handheld computers and will help to support the administration of medical care.

Till that we should take into consideration aspects of psychosocial compatibility, the possible interference on communication behavior and communication demand as well as changes of job ergonomics. Still we do not know, which influence technical devices used by physicians do have on perception of patients and their faith into the competence of physicians. We think this to be an elementary question, which is unfortunately less frequently asked in times of further reduction of time and financial resources.

By combined activities, like we have just shown for the project group MoCoMed, we hope to improve the transfer from scientists to industry, bringing together developers and users more closely and - in the special case of mobile computing in medicine – try not to disturb, or even better, support the doctor-patient relationship.

In this context, we like to invite the reader of the proceedings to participate in the project group "Mobile Computing in Medicine" in order to spread information about their projects, experiences, and contacts, resulting in better healthcare for patients and better working conditions for medical staff. Every information gathered by the project group, is published at their web site, which can be found at [www.mocomed.org](http://www.mocomed.org). Furthermore, the project group has a mailing list where everyone can discuss issues regarding mobile computing.

Not at last, we would like to thank all participants and speakers for their contributions and interest in the 2nd workshop "Mobile Computing in Medicine" held in Heidelberg. Special thanks belong to Prof. Paul Schmücker and his colleagues who deserve our recognition for the good organization of the overall conference as well as Tim Riepe for his continuous work on the layout of this proceedings.

Furthermore we like to thank the GMDS (German Society for Medical Informatics, Biometry and Epidemiology), Gesundheitsnetz Rhein-Neckar-Dreieck ([www.gn-rnd.de](http://www.gn-rnd.de)) as well as the companies DOCHECK ([www.doccheck.de](http://www.doccheck.de)) and SillerAG ([www.siller.de](http://www.siller.de)) for generous support.

Best regards

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