

5th International Workshop on: "HCI in Mobile Guides"

Keith Cheverst
Department of Computing,
Infolab, Lancaster University,
Lancaster, LA1 4WA.

kc@comp.lancs.ac.uk

Barbara Schmidt-Belz
Fraunhofer FIT,
Sankt Augustin,
Germany.

Barbara.Schmidt-Belz@fit.fraunhofer.de

ABSTRACT

This fifth workshop in this series of workshops once again aims to bring together both researchers and practitioners who develop and evaluate mobile guides, i.e. systems designed to guide a user who is moving in a physical environment by giving directions and supplying relevant information and access to services via some form of mobile device. Application examples of mobile guides include: mobile tourism services, museum/exhibition guides, support for building communities and context-aware directory services. The focus of this workshop is on fostering the user-centred design of mobile guide systems. Following review by the program committee, accepted papers will be presented and discussed at the workshop.

Categories and Subject Descriptors

H.4.3 [Information Systems]: Communications Applications – Information browsers.

General Terms

Design, Human Factors.

Keywords

Evaluation, Human Factors, Mobile Guides.

1. BACKGROUND AND INTRODUCTION

Today's mobile user demands easy access to relevant information services from a variety of devices (both personal and situated/public), whenever and wherever they need them. Example applications for mobile guides include: mobile tourism services, indoor and outdoor museum/exhibition/event guides and context-aware directory services. Although the latest mobile devices and information services offer new and enhanced ways to support nomadic users, they also raise challenges concerning interaction modalities, usability, accessibility and trustworthiness.

The need to consider the HCI implications of mobile guides, i.e. systems designed to guide a user who is moving in a physical environment by giving directions and supplying relevant information and access to services via some form of mobile device, is clear. Specific research in this area is required in order to ensure that the usability of mobile guides does not get overlooked in favour of the exciting technological advances in this area, e.g. the current marketing of mobile phones with built in GPS and other sensor technologies and integrated high-speed wireless networking capabilities. Indeed, the huge gap between technical feasibility and visions, on the one hand, and useful and usable applications on the other hand needs to be bridged by empirical research in a human-centred way. This workshop shall be a forum for this research.

This workshop brings together experts who develop or evaluate mobile guides and wish to share and discuss their experiences in

this workshop. Aspects of human-computer interaction are to be addressed explicitly, empirical user studies being considered the most relevant method of research here.

The first workshop in the series [1] was held in conjunction with the Mobile HCI 2002 conference in Pisa, Italy. Since then "HCI in Mobile Guides" workshops have been held in Udine (2003), Glasgow (2004) and Salzburg (2005) [3]. To date the workshops in this series have brought together approximately 120 researchers and practitioners and has provided a research/paper archive for many more. Indeed, accepted papers for all previous workshops are available via the Web Site at www.mguides.info. A selection of papers was published in a special issue of Behaviour and Information Technology on: 'Mobile guides - an HCI perspective' [2].

2. TOPICS OF INTEREST

A range of topics are relevant to a discussion on the human computer interaction issues relating to mobile guide systems. In this workshop, the following topics are of particular relevance:

- Appropriate techniques for supporting the User-centred and/or Participatory Design of mobile guides.
- Accessibility for particular groups, e.g. older users, the visually impaired etc.
- Suitability of different interaction modes for mobile guides. e.g. utilising multimodal input/output, anthropomorphic approaches, etc.
- Fostering user-understanding of adaptive behaviour, e.g. location awareness, and the uncertainties associated with such behaviour, e.g. due to inaccuracies in GPS readings etc.
- Visualization of the spatial environment, Augmented Reality. 2D/3D maps etc.
- Conveying dynamic information, e.g. changes to available services, changes to the underlying physical model etc. and supporting information retrieval whilst faced with changing infrastructure conditions.
- Leisure/entertainment use of mobile guides (e.g. by games on treasure hunts or to support spontaneous social gatherings).
- User Interface techniques to facilitate access to heterogeneous and/or distributed services.
- Group/community support provided by mobile guides, e.g. social navigation, facilitating group rendezvous, use/sharing of content produced by the community/other visitors etc.

- Personalization of services, e.g. use of user modelling techniques.
- User evaluation of mobile guides and understanding mobile guide use.
- Design principles or heuristics for mobile guides.
- Approaches to (and results of) requirements analysis for mobile guides, e.g. the use of ethnographic techniques etc.
- Design solutions for “baby interfaces” on mobile guides, i.e., small buttons, small screens and small interaction devices.
- Introducing the services to use; facilitating the out-of-box experience.
- Issues arising from the opportunities and challenges provided by multimodal user interfaces.
- Designing for usage “in the wild”: design and evaluation of mobile guides in natural environments, etc.
- The design and use of situated displays for supporting activities related to tourism/guides, e.g. supporting information retrieval, sharing of content etc.
- Issues arising from supporting user/community generated content for mobile guides.

3. PROGRAM COMMITTEE

The organizers of this year’s workshop will be Keith Cheverst and Barbara Schmidt-Belz.

The Program Committee for the 5th workshop on “HCI in Mobile Guides” comprises the following members:

Lynne Baillie (FTW, Vienna)

Mark Dunlop (Strathclyde University, Scotland)
 Connor Graham (Melbourne University, Australia)
 Keith Mitchell (Lancaster University, England)
 Elke-Maria Melchior (ACIT, Germany)
 Jesper Kjeldskov (Aalborg University, Denmark)
 Jeni Paay (Aalborg University, Denmark)
 Eija Kaasinen (VTT Information Technology, Finland)
 Chris Kray (Lancaster University, England)
 Janna Hakkila (Nokia, Finland)

The members of the international PC represent an important mix of experts from both academic and industry backgrounds. They all have a scientific expertise and numerous publications in key issues relating to mobile guides and HCI.

4. ACKNOWLEDGMENTS

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5. REFERENCES

- [1] Schmidt-Belz, B. and K. Cheverst. Proc. of 1st Workshop on Mobile Tourism Support, B. Schmidt-Belz and K. Cheverst (Eds.), ISBN 3-88457-980-0, August 2002.
- [2] Schmidt-Belz, B. and K. Cheverst., ‘Mobile guides - an HCI perspective’ in Special Issue: ‘HCI in Mobile Guides’ of Behaviour and Information Technology’, Volume 24, Issue 1, Jan-Feb, Taylor and Francis Ltd, 2005.
- [3] Cheverst, K. and Schmidt-Belz, B. 2005. 4th international workshop on: “HCI in mobile guides”. In *Proceedings of the 7th international Conference on Human Computer interaction with Mobile Devices & Services* (Salzburg, Austria, September 19 - 22, 2005). MobileHCI '05, vol. 111. ACM Press, New York, NY, 359-360