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Meeting in the Magic Lounge

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Magic Lounge is a collaborative virtual meeting environment which facilitates interaction between physically remote people using heterogeneous communication devices. The aim of the Magic Lounge is to allow ordinary people, with little knowledge of technology, to use devices such as PCs, PDAs, and mobile telephones to participate in virtual meetings with intelligent services for information collection, summarisation, search and exchange. The design and implementation of the Magic Lounge is based on user-centred design methodology. This video presents a futuristic vision of the Magic Lounge as conceived by a number of individuals selected from the potential user population. The video combines the users' requirements and expectations from an ideal system, and shows the possibilities and advantages of performing a task in such a virtual meeting environment. The task scenario used as the basis for this video was selected from one of the user's current work practices, to provide a realistic story line.

Keywords: virtual environments, collaborative work, mobile computing, user-centred design, CSCW

1. INTRODUCTION

There are a number of virtual meeting environments which support interaction between physically remote people (Fitzpatrick 1995, Roseman 1996). The majority of these virtual meeting environments often rely on specific computer technology, such as PCs with audio and video input and output devices. However, as mobile computing and communication devices are becoming more widely available, there is a growing need for systems that can support the use of such devices in collaborative virtual meetings. There is also a need for systems that can allow interaction between people with different types of technology (for instance, someone with a mobile telephone interacting with someone with a PDA).

The aim of the Magic Lounge project (Bernsen 1998, Masoodian 1999) is to design and implement a virtual meeting environment which provides the necessary tools for communication and interaction needs of geographically separated individuals who want to collaborate with one another using heterogeneous devices such as PCs, PDAs, Palmtops, and mobile telephones. Magic Lounge is going to offer a range of services, some of which are:

- Intelligent multi-party communication management allowing recording and retrieving of the meeting communication history in a multi-media fashion.
- Content-based media conversion techniques coping with heterogeneous communication devices.

- Speech-operated information retrieval for embedding third-party information services, such as those provided on the Internet.
- Speech and gesture-based interrogation and navigation of information spaces.

Development of systems such as the Magic Lounge, which rely heavily on the involvement of the potential users, are often based on the user-centred design techniques, particularly participatory design. However, the success of the participatory design process depends very much on the effectiveness of the communication between the users, designers, and developers of the new technology. Unfortunately, in practice, there are often problems associated with this communication. The video described here, was created to facilitate the communication process between the users and designers of the Magic Lounge. This video combines the visions of the potential users of the Magic Lounge regarding its possible uses after the development, with their current everyday activities.

2. MAGIC LOUNGE SOFTWARE

Although this video presents a futuristic vision of the Magic Lounge, a prototype has been developed to provide some of the envisaged functionality of the final system. This prototype is currently being tested by the user group. The results of these tests will be used for improving the usability and functionality of the future prototypes (Masoodian 1999).

The current Magic Lounge prototype, which has been implemented in Java, utilises CORBA technology for its underlying client-server architecture, while the MBone technology has been used to provide the necessary means for multicast audio conferencing. This prototype includes a number of tools, among which are: an audio conferencing tool with a score-line graphical user interface for viewing the meeting history (Roy 1999), a textual chat tool with intelligent functions for tagging communicative acts, and a memory tool for accessing and interrogating the internal Magic Lounge meeting memory. At present, Magic Lounge can be accessed using a client program developed for either a PC, PDA, or a simulated telephone.

Future work will focus on improving and extending the tools for accessing and viewing the memory and meeting history using different communication devices, as well as, those tools used for audio and textual communication.

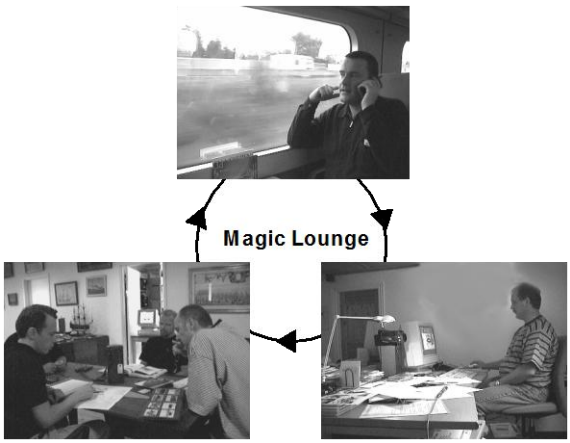

Figure 1. Three scenes from the video showing several people who are using heterogeneous communication devices to attend a meeting in the Magic Lounge.

3. ACKNOWLEDGEMENTS

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