Workshop Proposal – Mensch und Computer 2008

Automotive User Interfaces and Interactive Applications – AUIIA 08

Organizers:

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The first workshop on Automotive User Interfaces at Mensch and Computer 2007 was very successful. We accepted 7 interesting papers and had between 20 and 30 people attending the sessions. The Session included presentations, discussions, and demos. This encouraged us to propose a follow-up workshop on the topic.

For more information on last year's workshop see http://uie.bit.uni-bonn.de/automotive07/

Theme

Components that include processing, communication, sensing and media are common in many areas in the automotive domain. With these novel technologies creating attractive in-car user interfaces has become a great challenge. Additionally, users expect interfaces that are intuitive and straightforward to use, without the need to read a manual. The overall experience in driving a car is more and more influenced by the man-machine interface, and hence creating a compelling user interface is of great importance for a successful product.

Traditional means for user interface development as known from desktop computing are often not suitable, as many other conditions have an influence on the design space for automotive user interfaces. In comparison to many other domains, trial and error while the product is already in the market is not acceptable as the cost of failure may be fatal.

User interface design in the automotive domain is relevant across many areas ranging from primary driving control, to assisted functions, to navigation and entertainment.

Topics

There are many challenges and topics that we like to address in the workshop. Original contributions from the following areas and beyond are welcome:

- new concepts for driving interfaces
- multi-modal car user interface
- methods and tools for automotive user interface research
- approaches for the evaluation of novel car user interfaces
- user interface issues for assistive functionality
- novel multimedia interfaces and in-car entertainment
- text input and output while driving
- speech interfaces for in-car use
- user interfaces for information access while driving
- user interfaces for navigation systems
- user interface frameworks and toolkits
- development tools and methods for car user interfaces
- biometrics as a user interface component
- detection and estimation of user intentions
- new display, visualization and interaction techniques for car UIs
- novel interactive car applications
- using sensors and context for interactive experiences in the car
- applications and user interfaces for inter-vehicle communication

Aims & Participants

The workshop seeks to bring together researchers, developers, practitioners and students from academia and industry who are concerned with envisioning, creating and implementing automotive user interfaces. The workshop will provide a venue to present novel research in this field and to discuss ideas and problems on the topic. The overall aim of the workshop is to foster a community that has interest and expertise in the domain of automotive user interfaces.

The number of participants will be limited to 20 people to enable intensive discussions.

Submission

Participants will be selected based on their submissions by a program committee; papers will undergo a peer-review. Two types of submissions are encouraged:

- Research papers describing original research work on automotive user interfaces
- System demonstrators of novel applications
- Experience reports and case studies with in-car user interfaces

The length of the submissions can be 4 or 10 pages for both categories. We strongly encourage student papers who may also report work in progress.

Agenda & Schedule

The workshop is proposed as a full day workshop. The agenda assumes that 8 research papers and 4 experience reports are available for presentation and discussion at the workshop.

09:00-09:10	Welcome and introduction to the workshop
09:10-10:30	4 Presentations (each 15 minute talk, 5 minute discussion)
10:30-11:00	Coffee/Tea break
11:00-12:30	4 Presentations (each 15 minute talk, 5 minute discussion)
12:30-13:30	Lunch break
13:30-15:00	4 Presentations (each 15 minute talk, 5 minute discussion)
15:00-15:30	Coffee/Tea break
15:30-16:30	discussion on central research questions, challenges, research methods
16:30-17:00	Wrap-up, discussion on future plans for the workshop
Evening	Dinner (not compulsory)

Tentative Program Committee

We will approach researchers and practitioners from different car companies and invite them to be on the PC for the workshop. We will try to keep a good balance between people from industry and academia.

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