

## Katja Schechtner

**Arsenal Research, Business Field Human Centered Mobility Technologies /Vienna, A**



Katja Schechtner was born in Austria in 1972. She has studied architecture and urban planning at the Technical University of Vienna, Austria (2001) and Columbia University, NYC, USA. She also holds an MSc in economics and communication from the DUK, Austria (2004).

She has worked as an urban planner in The Netherlands, Ireland and as a senior consultant in urban planning and transport telematics in Japan. Since 2002 she is Head of Department of Human Centered Mobility Technologies at arsenal research, Vienna. In her scientific work she is concerned with the analysis of the mobility behaviour of humans and the development of orientation systems and mobile information systems. The focus of her work is on landmark orientation and the interaction of the urban infrastructure with the citizens –“ambient urban intelligence”.

## INFLOW Information Flow Without Resistance

### Abstract

Digital train information systems will become an essential in the near future. They have the potential to supply real time information through a multitude of channels to different user groups. This will enhance the travel experience of ordinary users but also allow physically, mentally or language challenged people – e.g. blind people or tourists that do not speak the language of the country – to use the train system more safely and smoothly.

Within the research project INFLOW, CURE - the Center for Usability Research & Engineering – and arsenal research cooperated to evaluate the User Experience, information flows, and especially the barriers in the information flow of the currently available information and guiding systems that are related to train travel.

A mix of different research methods was applied to a set of train information systems, including online information, telephone information, ticket machines, guiding systems at stations, etc.

The basic findings were compiled into a set of design patterns, which address the current problems on three different levels:

- High level: User tasks (captures abstract processes and overall issues of interaction and information – e.g. a complete trip from A to B or the whole booking process)
- Mid level: Style („look and feel“ of bigger units – e.g. a ticket machine or a visual guiding system at a specific train station)
- Low level: Objects (direct examples of single objects - e.g. the assembly of elements on an internet page that are necessary for planning a single trip)

The analysis of information flows showed that:

- Access is not granted for all users
- The complexity of information and applications is too high
- Information is inconsistent and contradictory
- There is a lack of real-time information (especially in the case of emergency)
- Orientation systems at stations (and their surroundings) are not consistently designed
- Most information systems are not barrier free (neither for people with physical or mental disabilities or language barriers)

Based on this findings and further evaluation of information and guiding technologies open R&D questions will be identified and design principles for the new Viennese Main Train Station will be formulated.