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Michael Sandmaier (1978) visited the University of Konstanz, Master Programme: Sociology, Politics & Economy and the University of Applied Sciences Darmstadt, Study Programme: Information and Knowledge Management. He graduated in 2004 as an Information Economist.

2005 - 2007 Stuttgart Media University:

Graduate Programme in "Information Management"

2007 Master Thesis in cooperation with the Fraunhofer HCI IAO, Stuttgart

Work Experience

2002/2003 **Virtual Identity AG, Freiburg**, Student Assistant

- Assistance of the Project Management team
- Evaluation of the corporate website of C.H. Beck Publishers

since 2005 **Fraunhofer Fraunhofer Institute for Industrial Engineering-Competence, Center Human-Computer Interaction, Stuttgart**

- Development, conduct and analysis of usability studies for industry partners
- Design of interactive products for industry partners
- Scientific research about user experience/ accessibility (Master Thesis)

User centred redesign of Germany's ticket machines for the future

Abstract

Fraunhofer Institute for Industrial Engineering (IAO) in Stuttgart was asked by DB Personenverkehr GmbH, a division of Germany's biggest rail passenger and freight transport company, to create an innovative interface concept and redesign of Germany's ticket machines for the future offering both, tickets of the Deutsche Bahn covering mainly longer distances and tickets of some 70 local transportation companies.

The work was based on the analyses of the various tariff systems across Germany, the interaction concepts and usability of the current ticket machines and the basic user motives when buying a ticket.

The work was founded on the combination of several qualitative and quantitative research methods continuously involving users throughout the whole project. The user centred design process allowed to identify several user groups where the interaction concepts were optimised for the requirements of each of the user groups.

Users' basic motives were found to be either (1) going from A to B or (2) wanting a specific ticket. The users of first case want the ticket machine to select the appropriate ticket for them after specifying all necessary information.

In the second case destination is less important as the customers know the tariff system and think in these terms. To serve these experienced users, a new way of categorizing the tickets in order to organize the content was developed. For commuters the dialog flow was optimised towards very few interaction steps. Customers travelling only occasionally can choose a wizard like assistance.