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On the right track - Intelligent traffic information and individual sustainable mobility

Renate Cervinka, Robert Sposato, Margarete Huber, Kathrin Röderer

Medical University of Vienna

Official statistics show that 31,7% of the Austrian population perceive climate change and increasing emission of green house gases to be the most important environmental issue today. The main source of green house gas emission is traffic, which is steadily increasing. The Austrian government recently launched the program line Ways2Go in order to improve the current environmental situation. Ways2go focuses on the movement of persons and is geared towards developing a knowledge base of future mobility and transport issues. To achieve this aim the program fosters a progressive, interdisciplinary and integrated research approach. The project ITSworks in which we are involved is one of the funded research projects within this program line. It deals with the implementation of a new service tool labelled ITS VR (Intelligent Transport System Vienna Region), which provides global and multimodal traffic information in real-time. There are comparable services across Europe (www.journeyplanner.org, www.bayerninfo.de) but ITS VR is the only one accompanied by research. Traffic- and environment-related aims like the augmentation of ecomobility can be achieved with the help of ITS. The core of our project is the investigation of the transformation of the provided information into behavior. At the symposium, we will present the structure and goals of the transdisciplinary research team working in the project. This research team consists of eight partners from different disciplines (e.g. urban and regional planners, IT developers, communication experts and environmental psychologists). It is supposed to bring together the knowledge of social and technical sciences and is currently working on the design of an intervention study. This study will be completed by May 2010. In parallel, we performed a series of studies in environmental psychology. An initial literature review (first study) covered health, environment and mobility. In order to protect eco system health and human health CO₂ emissions, walking and the reduction of commuter stress emerged as key issues. Furthermore, habit breaking events were found to be promising starting points for behavioural changes towards individual sustainable mobility. In a second study we examined the use of new technologies for route planning purposes among a student population (N=134). We hypothesised this population to show a high technical affinity and playful approach to new technologies. 85% of the respondents indicated to use route planning applications offered online but only 8% also made use of those services on mobile devices. These results indicate the high potential for mobile applications for the purpose of traffic information. In a third study (N=99) we investigated the relationship between commuter stress, contextual factors, etc. on the perceived quality of life. In a first step focusing on methodological aspects we translated the commuting stress scale by Evans & Wener (2002) into german and conducted a confirmatory factor analysis. Additionally we investigated scale characteristics of a newly developed scale on coping activities while commuting. In a second step we currently apply those scales and investigate the relationship between certain factors of daily commuting, experienced commuting stress and quality of life. Climate change and the emission of green house gases are burning issues, which should be worked against with united efforts. In order to foster individual sustainable mobility we suggest to use new technologies. From the perspective of environmental protection as well as health promotion we suggest to provide users with information on their individual CO₂ emissions and increase in fitness by walking as an active mode of transport.