Title: Enhanced Social Interaction in Traffic

**Abstract:** We investigate social and interactional aspects of driving among groups of road users, where the roads and road use have the double qualities of means as well as ends, in order to generate meaningful and interesting mobile services. Based on ethnographic studies of groups of road users which all spend a lot of time on the roads for various purposes, ranging from work to leisure and fun, we explore how mobile services can be designed and accommodated to enhance social interaction in traffic.

The empirical data originate from three ethnographic studies of road users. The studies range from salespeople handling their work while driving and infrastructure managers taking care of the roads, to motorcyclists enjoying the company of other bikers while travelling along the roads. The studies display the specific conditions of road use, such as the speed, the focus on driving, the vast area, the need to be at certain geographical locations, the amount of other road users, or being closed in by the body of the vehicle, etc. These are prerequisites for performing work and/or socialising along the roads, as well as hampering factors.

To bring forward the characteristics of road use, and the possibilities to develop mobile and innovative services benefiting from, and supporting road use, the dissertation discusses the road users' relationships with the roadside passing by, with others far remote, and with road users met along the highway. These aspects of road use have played an important role in the design of two prototypes. PlaceMemo, developed to facilitate infrastructure management tasks. Hocman, designed to support the social aspects of motorcycling. These prototypes are designed to fit with the conditions of driving, and they have been brought back and evaluated in their intended setting, i.e. on the roads.

Based on the findings from the field studies, as well as the evaluations of the prototypes, we argue that increased social interaction among road users is a promising way to proceed with traffic-related research. Seeing that road use contains a variety of social and interactional aspects, there is a potential in developing mobile services benefiting from the circumstances around road use, and enhancing social interaction among road users.

The different activities of ethnographic fieldwork of mundane road use, design and evaluation of prototype services, all play an important role in how this thesis points out the importance of social interaction in traffic, and provides insights to the design of future services for road users. Accordingly, the thesis argues the importance of taking traffic seriously, by studying the details of road use that are so mundane and everyday that they are almost invisible for us.

**Keywords:** Social interaction, road use, mobile CSCW, ethnography, design, evaluation, mobile technology

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