

In partial fulfillment of the terms for obtaining the PhD degree, Maria Kjærup will give a lecture on the following subject:

Rural and Urban Mobility: Studying Digital Technology Use and Interaction

on Thursday 11th of November 2021, 13:00, in room 0.2.13 at Selma Lagerlöfs Vej 300

Abstract:

Mobility is central to our everyday lives, for commuting, for combatting a sedentary lifestyle, for leisure, etc. Digital technologies are designed and targeted to support people mobility, from travel planners and real-time traffic information to enabling shared modes and on-demand mobility, but we need empirical knowledge about in what ways these digital technologies support mobility. In particular, little HCI research is concerned with how digital technologies and new modes of mobility impact mobility for rural and urban contexts.

This thesis investigates mobility in rural and urban contexts by studying the use and interaction with digital technologies for mobility. 1) to characterize rural and urban mobility. 2) to illustrate and discuss how digital technologies support people mobility. 3) to focus on how studies of mobility and digital technology use for rural and urban areas can be planned and carried out.

The contribution of this thesis is based on four papers that present four user studies in the field. Whereof two paper contributions portray two matters of rural mobility: how on-demand mobility services attempt to accommodate the last mile problem and integration of digital technologies for mobility. Two papers depict urban mobility on two topics: digital technologies for moving volunteers with first aid competencies purposefully and promptly to nearby cardiac arrests in public places and how shared micromobility adapts to hybrid urban mobility.

The empirical findings of this PhD project demonstrate that rural mobility is often characterized by car-based mobility. A low population density impacts the potential demand and thus a high frequency of public transportation is not profitable. Mobility service gaps between rural dwellers and transportation hubs referred to as the first and last mile are challenging to accommodate. Urban mobility is characterized by having an abundance of mobility options, private, public, and shared mobility modes are perceived as highly flexible, although adversely the many mobility options often result in congestion. New modes of hybrid micromobility have yet to establish their purpose and place in the urban mobility landscape. I propose that digital technologies can support rural and urban mobility through integration across public and private modes of mobility, creating flexible ad-hoc routes, enabling shared modes of mobility and mobilizing people. Crucial to success is that mobility information is transparently, dynamically, and timely communicated and that reliability of mobility is high. Studying digital mobility using in-situ methods can be carried out if mobility can be planned or is highly visible, but is not suitable for all mobility contexts.

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Members of the assessment committee are Associate Professor John Stouby Persson (Chairman), Aalborg University, Professor Kaisa Väänänen, Tampere University, Finland, and Professor Barry A.T. Brown, Stockholm University, Sweden. Professor Mikael B. Skov is Maria's supervisor. The moderator is Associate Professor Niels van Berkel.

All interested parties are welcome. After the defense the department will be hosting a small reception in cluster 5.