Abstract

This thesis is a collection of six papers that explores new IT use in local mobility, i.e., the mobility of people in limited areas such as office environments. The overall research question asked in the thesis is: *how can work related locally mobile interaction be supported using context aware applications*? To answer the question, I have participated in theoretical and empirical investigations, as well as elaborated on design ideas that have been implemented and evaluated empirically.

The empirical investigations revealed two main results: The concepts of "scalability through cultivation" and "mobile meetings." Based on the concept of cultivation and coordination theory, as well as a field study of locally mobile work processes in a plant, we introduce the idea of "scalability through cultivation" as a novel perspective on how to scale up (mobile) work processes. Our claim is: to scale up the mobile work processes investigated, the co-ordination between operations should be improved to decrease the risk of disruptions. The second empirically based result is the concept of "the mobile meeting," which is a work-related type of informal communication between locally mobile people in office environments, which according to our fieldwork, plays an important role in office work.

Based on the fieldwork, design elaborations and theoretical studies, we have developed and evaluated two novel application concepts for local mobility: The "Proxy Lady" and the "Desk Panel." Proxy Lady is a novel context aware application that uses the proximity of people as a means to support opportunistic interaction. According to our evaluation results, people recognize the task domain and find it important. The Desk Panel application also utilizes proximity as a means to offer novel application support. Desk Panel is a combination of a stationary and mobile system, which lets locally mobile people with handheld devices easily access personal information such as emails, on large screens placed in the office environment.