

Modeling of Cognitive Aspects of Mobile Interaction

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Interacting with mobile devices is gaining more and more importance in our daily life. Using those devices provides huge comfort, but nevertheless entails specific challenges. In contrast to the classical home computer setting, mobile device usage is more prone to disruptions, more influenced by time pressure and more likely to be affected by earlier interaction experiences. An important issue in this context consists in interfaces fitting best for the users' cognitive abilities. These abilities display a high variety between different groups of users. How can developers and designers adapt an interface to meet the users' skills and preferences? For these purposes, cognitive modeling provides an appealing opportunity to gain insights into the users' skills and cognitive processes. It offers a theoretical framework as well as a computational platform for testing theories and deriving predictions. The scope of this symposium lies in introducing selected approaches to user modeling and showing their application to the domain of mobile interaction. In this context we are particularly interested in criteria like learnability and efficiency from a cognitive as well as a technical point of view. Moreover, research concerning individual differences, interruption and expectancy is presented. Overall, we aim to show that the mobile interaction scenario offers an interesting research area to test model approaches in real life applications, but also discuss cognitive processes that are relevant within those tasks. We will look upon those different cognitive aspects of mobile interaction and the role of modeling to improve cognitive appropriate applications.