Abstract

A mobile phone is often characterised by its limited user interface. We consider applying a machine learning approach to improve the usability of a mobile phone's interface. We present an approach that predicts a user's menu selection on a mobile phone. The learning approach consists of a highly restricted set of hypotheses. A restricted set of hypotheses allows both the learner to operate efficiently within the limited hardware resources of a mobile phone and learn concepts quickly from a small training set. We compare our approach with alternative menu prediction approaches in a simulation. Also a modified Nokia Series 60 mobile phone address book application was developed to incorporate our menu prediction approach. A user evaluation of this implementation shows that our predictive menu selection approach has the potential to reduce the number of key presses a user makes. The talk will also include: "How plans in the form of interface shortcuts can determined on a mobile phone. Particularly, how relevant plans can be provided to a user.

BIO. I am a PhD student in the Department of Computer Science in the Faculty of Engineering and Information Technology at the Australian National University. I am currently undertaking research in the area of learning within agent systems. I have recently been involved in the Smart Personal Assistant program in the Smart Internet Technology Cooperative Research Centre. In particular, focusing on the use of Machine Learning techniques to provide adaptivity to smart personal assistant agents.