

Text Input Method for single-handed mobile devices

Kaith Menken
kaith-uwe.menken@uni-
ulm.de

Daniel Eischer
daniel.eischer@uni-
ulm.de

Sebastian Hartwig
sebastian.hartwig@uni-
ulm.de

Johann Albach
johann.albach@uni-
ulm.de

ABSTRACT

These days our society depends increasingly on micro computers. That is because of a wide range of functionality integrated in mobile devices. Hence, usability and performance are important factors which are profitable to develop. Since the idea of mobile devices is communication there has been many researches in terms of text input improvement. Short message service and electronic mails aren't the only applications anymore using text input methods. Fault tolerance text input methods are hot topics of mobile software development. Mobile devices that correct misspelled text input by it-self for the user are highly in demand.

We proceed on the assumption that in futur the usage of mobile devices is going be more prompt than now. Meaning mobile devices will leave our pockets and integrate in our clothes or even will be placed on our body.

The idea is wearing, for instance a smartphone attached to a bracelet on our wrists. Providing instant access to the smartphone. In our approach we try to realise a text input method for single-handed mobile device usage.

General Terms

Theory

Keywords

smartphone, swype, single-handed, text, input, methods

1. INTRODUCTION

Short messages shape our daily life. Every smartphone user is writing thousands of short texts every week. Therefore software that supports users while typing is important. The tendency for future smartphones is to be accessible more easily. Micro computers that are integrated in clothes or wearable smartphones providing instant access. Those developments require different implementation of text input methods enabling a single-handed input.

Our approach targets a device attached to the wrist of the user. Placed at the wrist of a user those devices are easily reachable. The only challenge is to compensate for a single-handed input that could in the worst case negate the promptness of our approach. Therefore we have to rethink the softkeyboard layout to shrink the whole keyboard frame occupying less of the display.

Another important feature in our approach are swype gestures. Thereby our keyboard enables advanced input options like special characters and numbers. Also no space bar as single button is planned, furthermore a single gesture should execute the space bar function. Since swype gestures are easy to perform a visceral mapping to their action is essential. Accordingly only a few frequently used functions are captured in swype gestures like changing from letters to special characters.