

Text input method for single-handed mobile devices

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ABSTRACT

These days our society increasingly depends 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. Hot topics in terms of mobile software development are fault tolerance text input methods. Mobile devices that correct misspelled text for their user are highly in demand. We proceed on the assumption that in future the usage of mobile devices is going to 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

Mobile Human Computer Interaction, Software Development, Smartphone

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. Well-known firms producing mobile devices are fighting a war in terms of selling their products. Headship is taking the one fabricating the most innovative model. The tendency for future smartphones is to be accessible more easily. Micro computers that are integrated in clothes or wearable smartphones providing instant access incentivize customers to go

for such a device. Those developments require different implementation of text input methods enabling a single-handed input.

2. BRACLET ATTACHED MOBILE DEVICE

Our approach targets a device attached to a bracelet or something quite similar. Placed at the wrist of a user those devices are in close range for the user. The only challenge is to compensate for a single-handed input method negating in the worst case the promptness of our approach. Therefore we have to rethink the softkeyboard layout to shrink the whole keyboard frame and as a result it occupies 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.

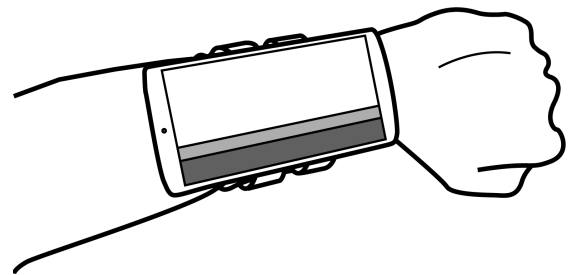


Figure 1: smartphone bracelet for usage on wrists