

Utilisation of smartwatches in situations requiring alerts

March 23 2015



VTT Technical Research of Centre Ltd has developed various kinds of software for smartwatches that utilise speech recognition in social communication and show smart traffic data on the watch display. Now, you no longer need to take a peek around a bend in the rails to see whether the train is approaching yet; you can simply have a quick look at

your watch. You can also inform others of a hold-up in traffic simply by dictating a speech message on your watch that is then forwarded as text to the smart devices of other people nearby.

When the situation calls for alerts, for instance in traffic, a [smartwatch](#) can be activated more quickly than a mobile phone. Smartwatch software is best suited for situations in which making a decision in a matter of seconds might be vital. Since the small display size limits the amount of content and utilises the touch screen user experience, the quality of information matters more than its quantity. The most important applications include reminders, quick instructions and status information messages.

VTT has also created an intelligent mobile app for use in traffic. It supports notifications that are delivered through a smartwatch, provided that the user has one in addition to their mobile phone. The app can, for example, direct drivers to the most convenient car park or suggest alternative public transportation connections to the user's destination if conditions are detected along the driving route that hinder traffic. The mobile app notifies the user of important events on the smartwatch display also through a vibration alert.

In late 2014, the 'Park&Ride' app was tested in the Helsinki area by an agile pilot test group. The test users felt that reminders in navigation applications were not very useful if one mainly had to rely on a mobile phone during navigation. The smartwatch display, which requires a fair amount of accuracy, is also best suited for applications with few touch-based functions..

The watch display resolution is more or less the same as that of mobile phones of over a decade ago, where the content that can be seen at a glance is limited to a few short lines of text. To ensure a good user experience, the quantity of information should be limited to match the

display size.

The technology could be introduced quickest in logistics, with notifications of orders and deliveries sent conveniently through a smartwatch. It is already possible to implement these kinds of applications.

VTT has developed its [applications](#) on the Android Wear platform. Android Wear smartwatches can also be programmed to understand speech in other languages. Speech-based use and control could be utilised, for example, in various businesses with country-specific operations.

Currently, the greatest challenge with smartwatches is the battery life. Typically, the battery of a smartwatch linked to a [mobile phone](#) through a Bluetooth connection lasts about a day. Without the Bluetooth connection, the battery might last without charging for a weekend.

Most commonly, smartwatches are used in order to deliver text messages, calendar alerts and phone calls. In addition, nearly all smartwatches are equipped with a pedometer, and some also with a heart rate monitor.

Provided by VTT Technical Research Centre of Finland

Citation: Utilisation of smartwatches in situations requiring alerts (2015, March 23) retrieved 24 April 2024 from

<https://phys.org/news/2015-03-utilisation-smartwatches-situations-requiring.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.