

Study exposes habit formation in smartphone users

July 25 2011

Popular media has raised the issue of repetitive and obsessive use of smartphones. Data collected in Finland and in USA presents the first scientific evidence for what the authors dubbed "checking habits": repetitive checks of the menu screen, news, email, contacts, and social applications on the device. A typical checking lasts less than 30 seconds and involves opening the screen lock and accessing a single application.

The researchers were surprised to find users engaging in checking behaviors throughout the [waking hours](#). Furthermore, a sizable proportion of smartphone use consists solely of checkings. Checkings do not occur randomly; they are associated with a small set of contexts that trigger them, such as reading [email](#) when commuting or checking news while bored. Despite its prevalence, users did not regard checking behavior as an [addiction](#), but described it in terms of overuse and as an annoyance.

Checking habits may change in the near future as more and more informational "rewards" are added to smartphones. The paper argues that novel informational rewards can lead to habitual behaviors if they are very quickly accessible. In a [field experiment](#), when the phone's contact book application was augmented with real-time information about contacts' whereabouts and doings, users started regularly checking the application. The researchers also observed that habit-formation for one application may increase habit-formation for related applications.

The authors conclude that promoting habit-formation has its pros and

cons. – By making interesting content quickly accessible, developers are on the one hand making the device more useful but, on the other hand, the habits that emerge essentially conquer more and more of a person's free time, says Tye Rattenbury, who was at Intel Labs at the time of writing.

– What concerns us here is that if your habitual response to, say, boredom, is that you pick up the phone to find interesting stimuli, you will be systematically distracted from the more important things happening around you. Habits are automatically triggered behaviors and compromise the more conscious control that some situations require and studies are already starting to associate smartphone use to dire consequences like driving accidents and poor work-life balance. Unfortunately, as decades of work in psychology shows, habits are not easy to change, Antti Oulasvirta, of HIIT, continues.

More information: The study, titled "Habits Make Smartphone Use More Pervasive," is published in the journal *Personal and Ubiquitous Computing*. The authors are Antti Oulasvirta (HIIT), Tye Rattenbury (Intel Labs), Lingyi Ma (HIIT), and Eeva Raita (HIIT).

Provided by Aalto University

Citation: Study exposes habit formation in smartphone users (2011, July 25) retrieved 26 April 2024 from <https://phys.org/news/2011-07-exposes-habit-formation-smartphone-users.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.