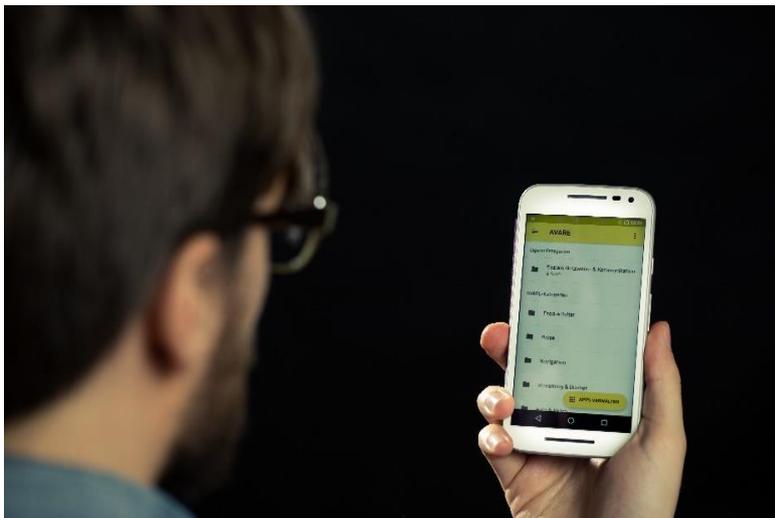


No Chance for Data Leeches

KIT Researchers Have Developed an App to Protect Mobile Data without Limiting the Usability of Popular Apps



For app providers, smartphones are permanent sources of data. The AVARE app turns off this tap. (Photo: Lydia Albrecht, KIT)

Messenger, games, fitness trainers: Internet giants offer millions of apps for download in their stores. Many of them are supposedly cost-free. However, users are data sources that can be used to make much money by many app and advertising network operators. Researchers of Karlsruhe Institute of Technology (KIT) and the FZI Research Center for Information Technology, an innovation partner of KIT, have now developed an app to better protect own data.

Your location, communication, purchases, preferred films and music, everything is recorded by app providers. Whoever attaches importance to data economy had to evade digitization to the largest possible extent in the past. Many persons considered this no viable option. On behalf of the Baden-Württemberg Foundation, KIT researchers have now found a remedy and have developed a data protection app that allows unrestricted use of popular, but information-hungry applications.



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Further material:

Video: www.avare.app

So far, it has been necessary to manually change authorizations of each individual app on the smartphone to prevent undesired data drain. In many cases, this was impossible, because the app simply stopped working. Now, a few clicks are sufficient. The AVARE program can be installed on Android devices like an app and creates a closed domain into which the other apps can be packed. This domain then controls communication between these apps and the operation system. "We have looked for a solution to use all apps without any restrictions, but to transmit own data in a controlled way only," says Dr. Gunther Schiefer, Head of the Mobile Business Group of KIT's Institute of Applied Informatics and Formal Description Methods (AIFB). If an app packed into AVARE tries to access contacts in your address book, AVARE enables the user to share individual contacts only and to restrict the data released to the mobile phone number, first name and last name, for instance. "The address or a date of birth are not required for a chat," Schiefer says.

In addition, AVARE can reduce the accuracy of location data and extend them to a radius of several kilometers, such that a weather app, for instance, continues to supply reliable prognoses without recording the building-exact location of the user. When using apps that do not work without general access rights, AVARE will go even further in future: "Then, we will play in wrong data that can be recognized to be wrong. The microphone interface is transmitted a noise, the camera interface a black area or cloud image. And the interface of the address book shows the emergency phone numbers of the fire department or breakdown service."

The AVARE code is available as an open-source software at: www.avare.app. Researchers hope that their program will be used by other developers who will help extend the current beta version in order to obtain a version 1.0.

The AVARE project was funded by the Baden-Württemberg Foundation (www.bwstiftung.de) under the research program "IKT-Sicherheit" (ICT security).

For more information and the video, click: www.avare.app

More about the KIT Information · Systems · Technologies Center:
<http://www.kcist.kit.edu>

Being "The Research University in the Helmholtz Association," KIT creates and imparts knowledge for the society and the environment. It is the objective to make significant contributions to the global challenges in the fields of energy, mobility and information.

For this, about 9,300 employees cooperate in a broad range of disciplines in natural sciences, engineering sciences, economics, and the humanities and social sciences. KIT prepares its 25,100 students for responsible tasks in society, industry, and science by offering research-based study programs. Innovation efforts at KIT build a bridge between important scientific findings and their application for the benefit of society, economic prosperity, and the preservation of our natural basis of life.

This press release is available on the internet at http://www.sek.kit.edu/english/press_office.php.

The photo in the best quality available to us may be downloaded under www.kit.edu or requested by mail to presse@kit.edu or phone +49 721 608-21105. The photo may be used in the context given above exclusively.

This year's **anniversary logo** recalls the milestones reached by KIT and its long tradition in research, teaching, and innovation. On October 1, 2009, KIT was established by the merger of its two predecessor institutions: the Polytechnic School and later University of Karlsruhe was founded in 1825, the Nuclear Reactor Construction and Operation Company and later Karlsruhe Research Center in 1956.