Improving User Privacy in Mobile and Ubiquitous Health Technologies

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Introduction

Mobile and ubiquitous health technologies (mHealth and uHealth) can collect and process vast amounts of health data, which is some of the most sensitive and valuable data that exists about an individual.

Despite this, users of these technologies may not be aware how much of their data is shared or what can be inferred about them from their data. The aim of this project is to change that.

Research Questions

- How aware are users of the inferences that can be made about them from the data they share while using mHealth and uHealth technologies?
- What factors influence a user's awareness of the inferences that can be made about them?
- How can we make users more aware of the privacy implications of how they use mHealth and uHealth technologies?

Phase One

This phase of the project is focusing on user awareness and working out what users understand about the data collected by mHealth and uHealth technologies.

The first study is looking at which apps users grant tracking permissions for on iOS, to see if there's a difference between apps used for health and non-health related apps. We will also test the privacy paradox.
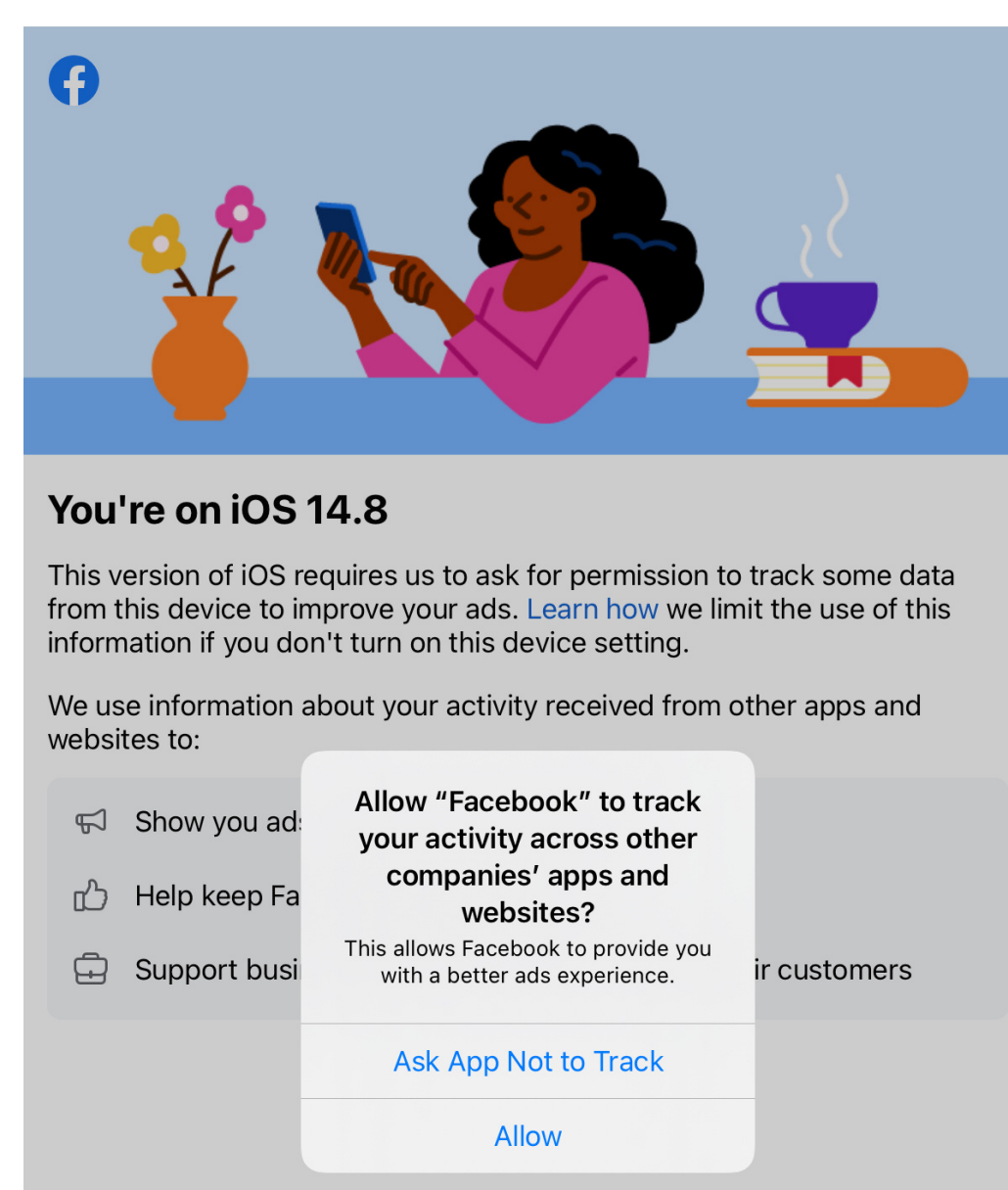
There's a focus on collecting actual behaviour and usage data rather than claimed privacy attitudes since these are known to differ.

Phase Two

Phase two is looking at the factors that influence users' awareness of the inferences that can be made about them.

We will be running studies to test multiple different factors including demographics, technological literacy, attitude to privacy and experience with mHealth and uHealth technologies.

Phase Three

The aim of the final phase is to use the results from the previous phases to design interventions that can help to improve privacy by making users more aware of the privacy implications of how they use mHealth and uHealth technologies.

User studies will form an important part of this research phase.

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