

Your goal is to develop a mobile application which tracks users' security behavior. Below is a checklist of behaviors of interest which you need to continuously track and log.

Problem 1.1. Track changes in the configuration of Advertising ID.

Problem 1.2. Track changes in the configuration of hide device in Bluetooth settings.

Problem 1.3. Track changes of passcode/PIN for the smartphones screen lock .

Problem 1.4. Detect if the user physically/manually covers her smartphone's screen when in public spaces.

Problem 1.5. Detect if the user uses adblocker(s).

Problem 1.6. Detect if the user uses anti-virus app(s).

Problem 1.7. Detect if the user uses VPN app(s) when connected to a public network.

Problem 1.8. Detect if the user turns off WiFi when not actively being used.

The following behaviors are harder to track so you might consider using different heuristics, Enterprise APIs or a VPN approach.

Problem 2.1. Track the source of the app when the user performs financial and/or shopping tasks.

Problem 2.2. Determine when downloading an app, if the user checks (or not) that the app is from the official/expected source (e.g. developer name).

Problem 2.3. Determine when downloading an app, if the user checks the source of apps (e.g. if they come from Google Play, Amazon Appstore or other third party stores).

Problem 2.4. Determine if the user verifies the recipient/sender before sharing text messages or other information using smartphone apps.

Problem 2.5. Determine if the user deletes any online communications (i.e., texts, emails, social media posts) that look suspicious.

Problem 2.6. Determine if the user pays attention to the pop-ups on her smartphone when connecting it to another device (e.g. laptop, desktop).

Most important for Problem set 2: 2.1; 2.3; 2.6