



CAPRICE – COLLECTIVE AWARENESS PLATFORM FOR PRIVACY CONCERNS AND EXPECTATIONS

Information Systems Laboratory
FORTH-ICS

<http://www.caprice-community.net/>

Motivation

Privacy in the Digital Age (1 / 5)

- Smartphones are the ideal tracking and advertisement platform.
 - Apps have **access to a wealth of personal data**.
Should they? Are we aware of what they do with it?

The Wall Street Journal: The examination of 101 popular smartphone "apps" revealed

- 56 apps transmitted the phone's unique device ID to other companies without users' awareness or consent.
- 47 apps transmitted the phone's location in some way.
- 5 sent age, gender and other personal details to outsiders



Motivation

Privacy in the Digital Age (2/5)

- Terms of use documents are lengthy, hard to read and difficult to understand by the average user.
- Upon frequent change, it is almost impossible to spot changes.
- Does this make our **consent informed**, as needed by law?

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1. Definitions. Defined terms used herein shall have the meanings ascribed to them below:

1.1 "Access Key" means that data string assigned specifically to you which enables limited access to the UPS Systems at UPS's sole discretion.

1.2 "Access User" or "You" means you individually and the entity for whom you act as an authorized representative, employee or agent.

Yes, I Do Agree

No, I Do Not Agree

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FoxNews: 7,500 Online Shoppers Unknowingly Sold Their Souls on April fool's day

Motivation

Privacy in the Digital Age (3/5)

- Legal frameworks exist.
 - But when it comes to new technological advancement, **policy making is a few steps behind**
- ...and we often give our consent anyway.
 - By law, companies must get parental consent to track minors under 13.
 - Are we aware of which **apps for children** take appropriate precautions?

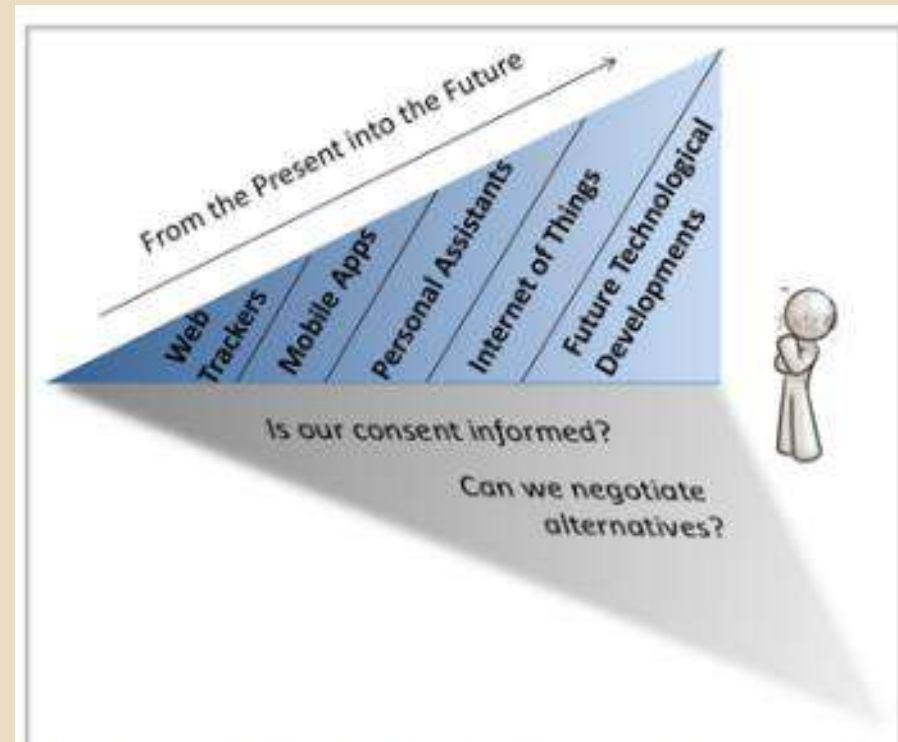


Figure 1. Web trackers (e.g., cookies, widgets, trackers for analytics and advertising), apps for mobile devices, personal assistant software (e.g., Siri, Cortana, Google Now, Alexa), IoT devices (e.g., smart TVs, smart watches, smart cardiac devices etc.), and future technological developments (e.g., social robotics) monitor, process and often share an increasing degree of personal and sensitive data, raising concerns about their legitimate use.

Motivation

Privacy in the Digital Age (4/5)

- Most companies earn a lot of money out of users' personal data.
- Not building the bond between sellers and consumers on **trust relations** will hurt the market in the long run, especially **small and medium companies**.

Bloomberg: according to a survey of nearly 2,300 adults

- more than half Americans owning smartphone/tablet have uninstalled an app or declined to download one because of worries about sharing personal information,

Motivation

Privacy in the Digital Age (5/5)

- Technical Solutions work when they are used
- Even a perfect technical solution for privacy protection is not effective if people **are not aware** of the problem and **do not apply it**.

Our targeted goal

- How do we enable **users** to
 - understand and ***be aware of*** what they gain and what they lose when they use digital services?
 - decide collectively and make explicit their ***privacy preferences?***
- How can we convince **developers** that respecting users' privacy is ***profit-maximizing?***
- Create a **trusted-market** where we can bring together **users, hackers** and **developers**

Our Response (in 3 words)

- We suggest a means not to substitute, but to complement and empower ***technical solutions*** and privacy-related ***policy making***...
- ...in the form of **Collective Privacy Norms**



Collective Privacy Norms

- Our thesis is that collective user actions and explicit privacy expectations statements can be used to
 - **put pressure** to companies to respect privacy matters
 - by making arguments that are easily translated into **financial terms**
 - by promoting **good company practices** and putting the bad examples under the spotlight
 - Ultimately, the responsibility for our privacy starts with us
 - But we can achieve much more if we harness **the power of community**

The CAPrice Platform

- A **Platform** to promote privacy awareness
- that will automatically generate **collective privacy norms** (users' expectations on privacy)

The Platform

- We plan to develop a platform (tools and methodologies)
 - Visual cues
 - A Semantic Wiki
 - A mobile app
 - A structured discussion and news forum
 - A privacy dashboard
 - A collection of services

Join the CAPrice community

- <http://www.caprce-community.net>
- Like us on facebook, twitter, youtube, vimeo
- Spread the word

