

Summary of "The Curious Case of the PDF Converter that Likes Mozart: Dissecting and Mitigating the Privacy Risk of Personal Cloud Apps"

Jens Becker, Katharina Mulack, Simon Weidmann

Security of complex Information systems

17. January 2018

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New permission
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Delta Permissions (DP)

Assumption: Users are detained if told which permissions are unnecessary



Pdf Merger would like to:

obtain permissions it doesn't need



View and manage the files in your Google Drive. ⓘ

obtain permissions it needs to function



View and manage Google Drive files that you have opened or created with this app. ⓘ

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Immediate Insights (IM)

Assumption: Users are detained if told which informations can be gained



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Insights Area

? What do the unneeded permissions say about you?

❗ They tell the app that you have an image, named 'dinner.jpg', which was captured at this location:



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Far-reaching Insights (FR)

Assumption: Users are deterred if told which far reaching insights can be gained







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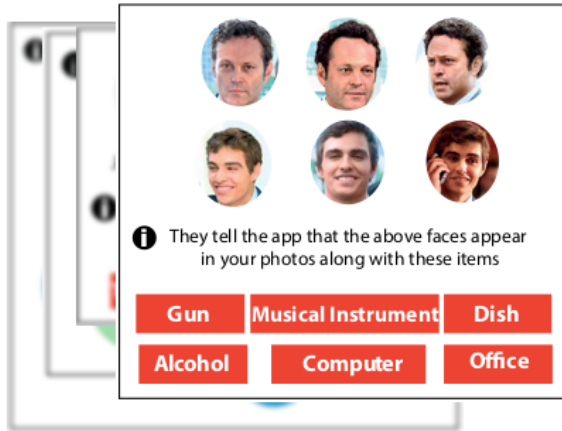
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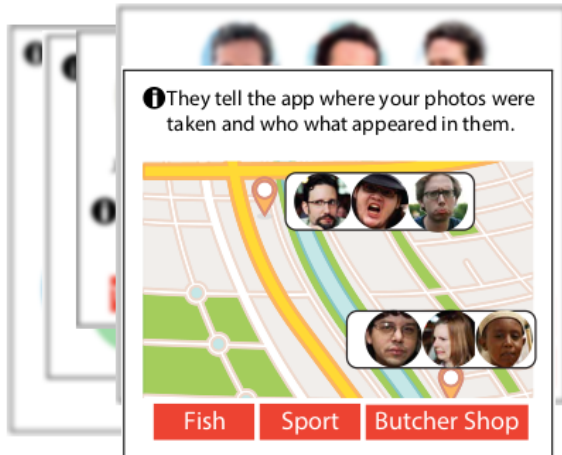
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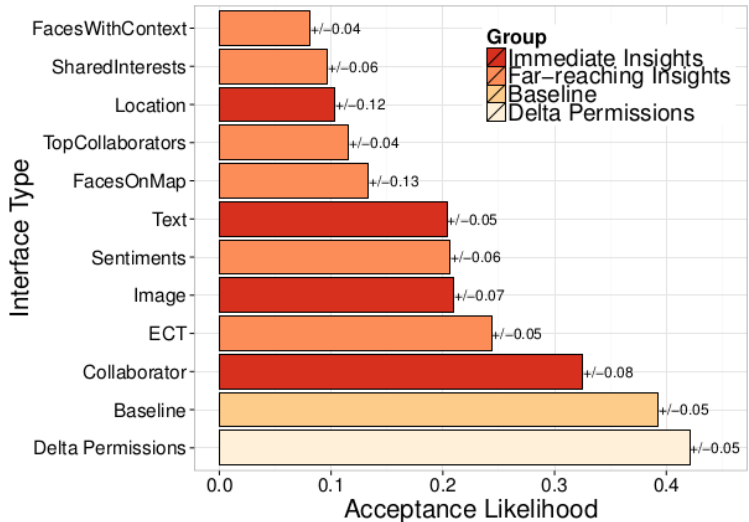
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210 participants

Four groups: DP (50), IM (54), FR (51), Control Group (55)

Procedure: Person confronted with an app and the wanted permissions \Rightarrow Would you install?



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App store developed by the authors

Focus on protection of the user's privacy

Three core feature

1440 registered users (effective 2016)

100 apps (effective 2016)

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Current misbehaviour of developers: How have the permissions changed?

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Analysis 662 apps from three sources

Google Chrome Web Store: 159 apps

Other Google Web Stores : 66 apps

Outside of Google Web Stores: 437 apps

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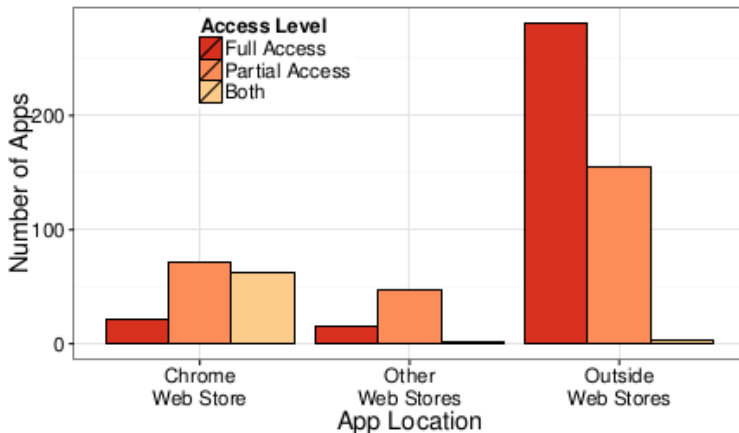
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Current misbehaviour of developers: The importance of metadata

Analysis of the informations that can be gained by accessing the users metadata

200 registered users with each more than ten text files

"General Topics": 78 percent matches

"Specific Topics": 66 percent matches

"Concepts": 31 percent matches but 69 percent are mostly similar

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Use more granulated permissions

Add an overview to cloud platforms

Inform users about insights that could be gained

Add an additional API

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Thank you for your attention!

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