### Individualized Mental Model and Universal Privacy Dashboard

Yang Wang, Syracuse University ywang@syr.edu



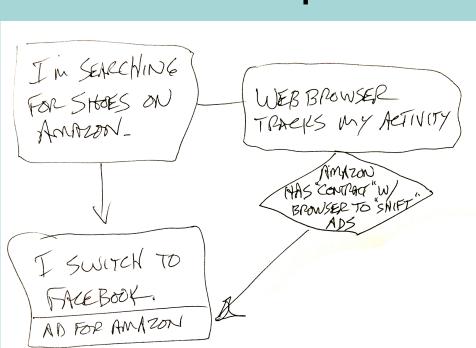
# Overall Project Goal

- Individualized mental models of privacy
  Understand how people think about the privacy aspects of technologies
- Universal privacy dashboard
  Design privacy dashboards to (1) provide people more awareness of their privacy mental models and behaviors in different contexts and (2) help reduce privacy paradox

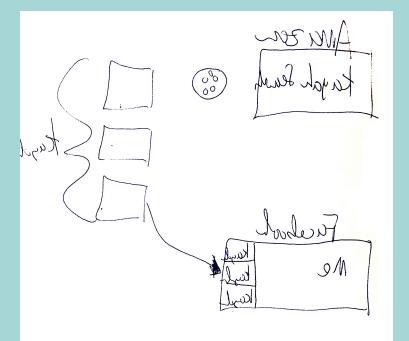
# Project Progress

Individualized Mental Models - Folk Models of Online Behavioral Advertising (OBA)

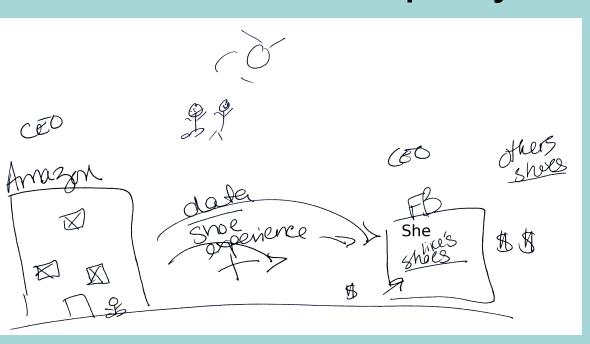
Browser-pull



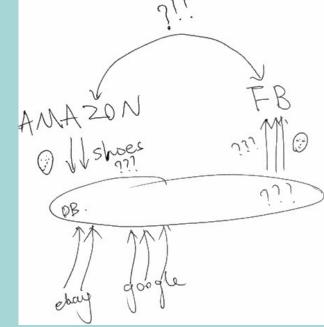
1<sup>st</sup>-party-pull



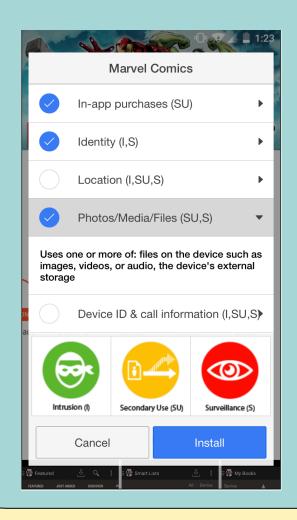
Connected-1st-party



3<sup>rd</sup>-party



#### Privacy Dashboard - Privacy Mirror for app permissions





Map app permissions to privacy concerns

Color icons for three kinds of privacy concerns: surveillance, intrusion, and secondary use

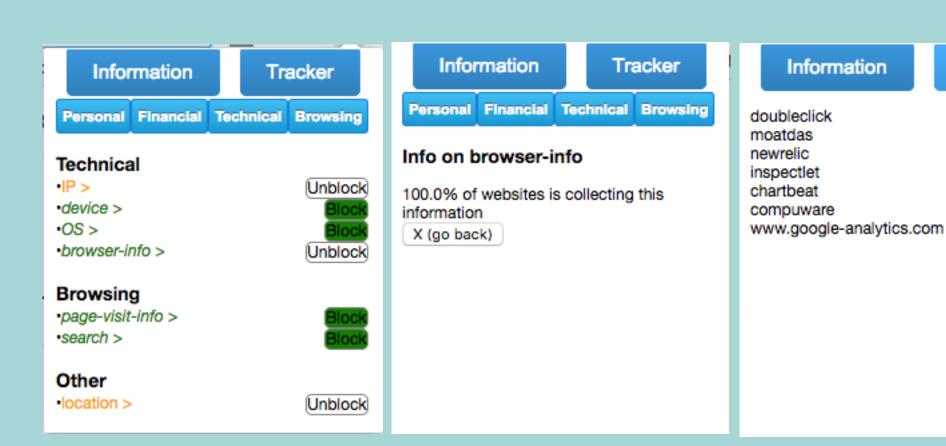
Visual representation of the discrepancy between app permission riskiness and privacy preferences

#### Privacy Dashboard - Privacy Mirror for online trackers / OBA

Transparency / awareness of trackers

2 modes: Information-based and tracker-based

Control/block trackers



Y. Yao, D. Lo Re, Y. Wang (2017): Folk Models of Online Behavioral Advertising. ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2017)

Y. Wang, H. Xia, Y. Huang (2016): Examining American and Chinese Internet Users' Contextual Privacy Preferences of Behavioral Advertising. CSCW 2016.

Interested in meeting the PIs? Attach post-it note below!





Tracker