Capturing Privacy Policies in a PeopleFinder Application
Paul Hankes Drielsma, Patrick Kelley, Norman Sadeh (PI), Lorrie Cranor, Jason Hong
School of Computer Science & CyLab - Carnegie Mellon University

**Location-enabled cell phone and laptop users share their location subject to privacy preferences they refine over time**
- Combines WiFi, GSM and GPS
- Deployments have shown that users have great difficulty specifying their privacy policies in this domain

Specify policies by hand, users achieve an average accuracy of only 70%

It is not for lack of trying: accuracy is only weakly correlated with time spent specifying and maintaining one’s policy

Can we develop technologies to empower users to more accurately and efficiently specify their policies?

**Overall Approach**

- **Explanation and Dialogue:** Allowing users to audit and refine policies by supporting questions such as “Why?” “Why not?” or “What if?”
- **Machine learning:** Leverage user feedback to suggest policy refinements
- Because the user and the learning techniques improve the same policy, hand in hand, the user retains full control over his or her policy
- **Field Studies:** Field studies involving over 100 users.
  - Results suggest that we can reach up to 90% accuracy
  - User-centered design, explanation, and machine learning

On our 12 most active users, machine learning improved policy accuracy from 79% to 91% on

Improvement in accuracy and reduction in standard deviation using mixed-initiative policy improvement

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