

Leveraging community oversight to enhance collective efficacy for privacy and security

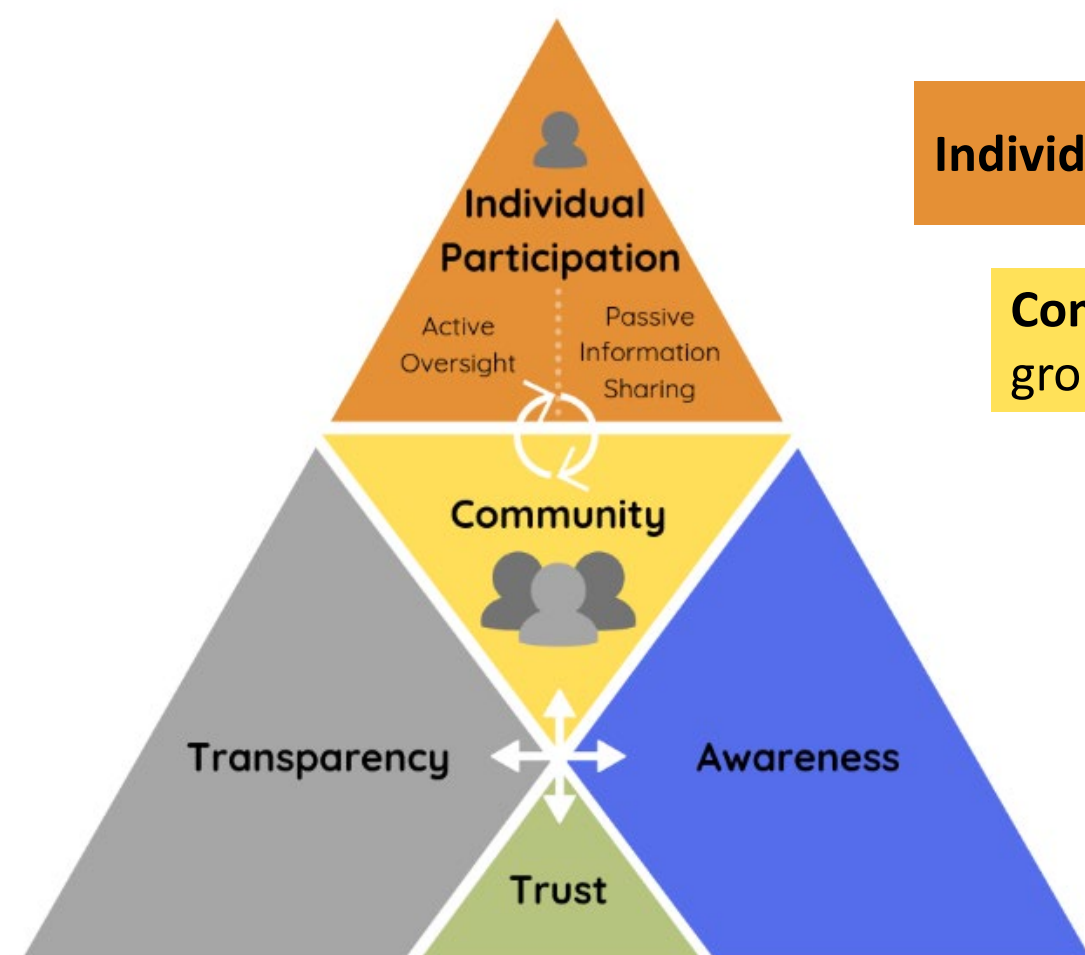
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Community Oversight Model



Individual Participation: Make in-the-moment privacy and security decisions for oneself while sharing experiences with others.

Community: Support one's inner-circle of family and friends in order to provide oversight, while also gaining insight from broader group of experts and frequent users.

Transparency: Make certain privacy behaviors, personal experiences, and opinions visible to others while ensuring personal info is kept private.

Awareness: Have access to useful information from others in order to make informed decisions. Only know what others are doing when providing oversight.

Trust: Form a community based on trust-relationships in order to get credible information on security and privacy.

Research Goals

Support individuals' digital privacy and security practices through the novel paradigm of community oversight, enhancing collective efficacy of trusted communities.

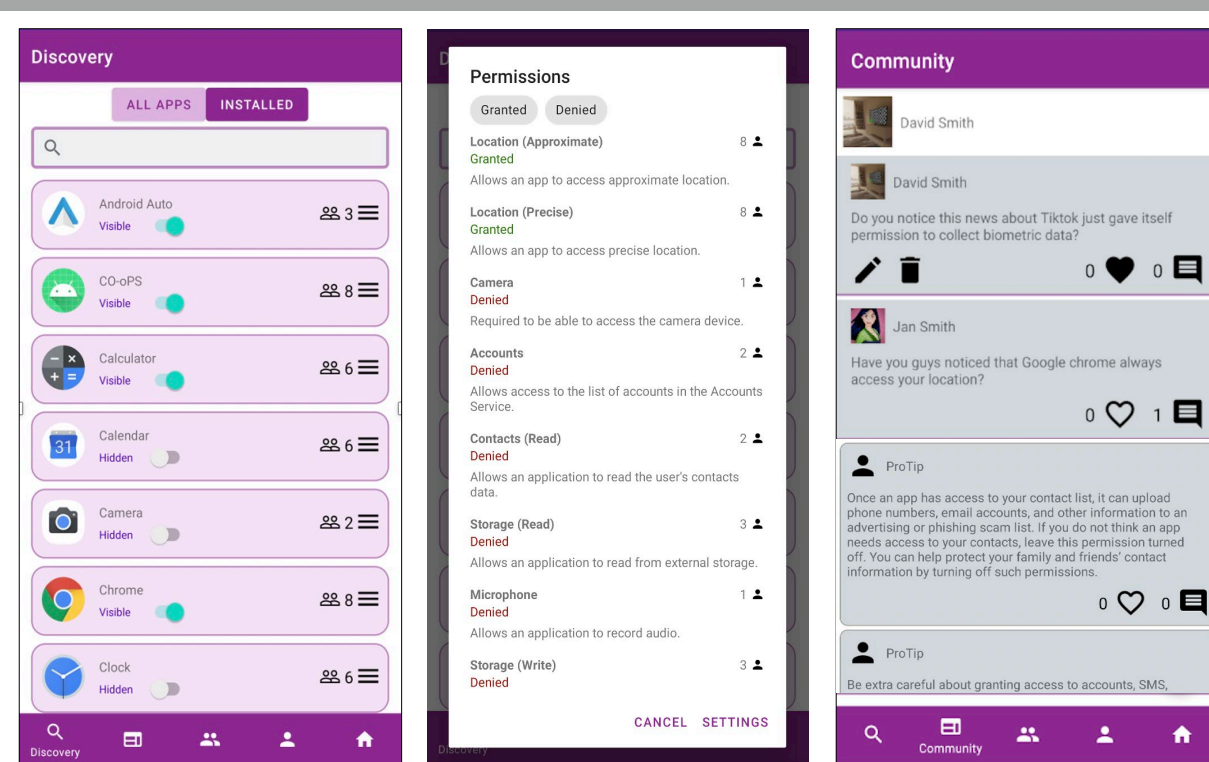
- Investigate social factors that impact participation in community oversight.
- Explore design features that support transparently sharing and communicating privacy and security practices
- Evaluate individual and group interactions within a community oversight mechanism

Scientific Impact

Transform digital privacy and security management into a collective process reliant on powerful social mechanisms.

- Fundamental understanding of role of community oversight in privacy and security management
- Model of community oversight developed through design exploration and evaluation
- Exploration of community oversight as part of tech caregiving within various communities including older adults and teens
- Impact of oversight on community collective efficacy for security and privacy

Community Oversight of Privacy and Security (CO-oPS)



Mobile app for communities to collectively share and communicate around app permissions. Provides transparency and awareness of app decisions to community members.

- Participatory design study explored features and model concepts. Results emphasized need for trustworthy info within care relationships as well as from informed experts.
- Lab-based study among parent-teen dyads explored whether CO-oPS can help families manage mobile online safety and privacy
- Longitudinal field study exploring efficacy of security and privacy management in communities (friends, families, coworkers)

Broader Impact

- Enhance end users' ability to enhance their mobile security and privacy awareness and behaviors
- Provide guidance and a platform to support diverse groups of people in collaborating around mobile privacy and security risks
- Inform interdisciplinary fields how to leverage real world social processes to enable collective digital security and privacy management.

Outcomes

- CO-oPS, an open-source mobile app developed for communities to help one another manage mobile security and safety
- Community collective efficacy for security and privacy, a reusable measure to evaluate a group's capacity for managing their security and privacy together
- Identification of the roles and activities that support tech caregiving amongst diverse populations

Publications

- Z. Aljallad et al. Designing a mobile application to support social processes for privacy. NDSS USEC 2019.
- C. Chouhan et al. Co-designing for community oversight: Helping people make privacy and security decisions together. CSCW 2019.
- M. Tabassum et al. Smart Home Beyond the Home: A Case for Community-Based Access Control, CHI 2020.
- J. Kropczynski et al. Towards building community-collective efficacy for managing digital privacy & security within older adult communities. CSCW 2021.
- J. Kropczynski et al. Examining collaborative support for privacy & security in the broader context of tech caregiving. CSCW 2021
- M. Akter et al. From parental control to joint family oversight: Can parents and teens manage mobile online safety and privacy as equals? CSCW 2022.

