# A Participatory Design Study to Test Community Oversight for Privacy and Security

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Individual Participation: To make in-the-moment privacy and security decisions for oneself and to share experiences with others.

**Community:** To support one's inner-circle of family, friends, and sometimes co-workers in order to provide oversight.

**Transparency:** To make certain privacy behaviors, personal experiences, and opinions visible to others.

Awareness: To have access to useful information that others willing provide in order to make informed decisions.

Trust: To form a community based on trust-relationships in order to get credible information.

## Challenges

Awareness

Individua

Active

Oversight

Transparency

**Participation** 

Community

Trus

Passive

Informatior

Sharing

# Scientific Impact

- 1. Enabling others to understand what factors impact privacy and security in a digital world.
- Translating the conversations individuals have with friends and family on privacy and security to a digital space.
- 3. Designing a study which invites participants to be the designers of their own app.
- 1. Deeper understanding of how individuals view their mobile privacy.
- 2. Development of technology to help end users stay safe online.
- 3. Increase in communities that are bonded through technological advancements

# Solution

- 1. The design of a study which brought groups of participants who identified as small community groups together.
- 2. A participatory design study conducted with the purpose of gathering data to build a mobile app that allows groups to communicate about app permissions.
- 3. Results from study emphasized that individuals care about the trustworthiness of software

companies and community groups as well as the information provided by experts.

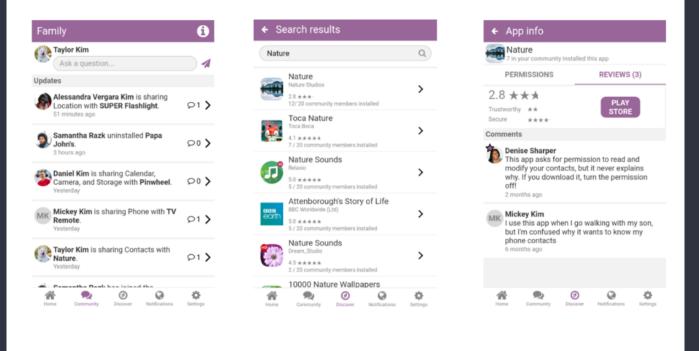
#### Results

 Data which supports features for an app that will help those seeking to better understand mobile privacy and security.

 An understanding on how communities can better aid one another in the decision making process.

### Societal Impacts

Communities that feel empowered to share their own experiences and help others.



#### Broader Impact

Research will increase conversations centered around mobile privacy and security and how individuals can be impacted. This transparency and education, will in turn further incentivize companies to increase their privacy and security practices.



The 4<sup>th</sup> NSF Secure and Trustworthy Cyberspace Principal Investigator Meeting (2019 SaTC PI Meeting) October 28-29, 2019 | Alexandria, Virginia

Family	i
Ask a question	
Updates	
Alessandra Vergara Kim is sharing Location with SUPER Flashlight. 51 minutes ago	Q1 🕽
Samantha Razk uninstalled Papa John's. 3 hours ago	90 >
Daniel Kim is sharing Calendar, Camera, and Storage with Pinwheel. Yesterday	90 >
MK Mickey Kim is sharing Phone with TV Remote. Yesterday	Q1 )
Taylor Kim is sharing Contacts with Nature. Yesterday	Q1 )
Home Community Discover Notifications	<b>Č</b> Settings

#### Search results

Nature		Q
	Nature Nature Studios 2.8 ***: 12/ 20 community members installed	>
<u>*</u>	Toca Nature Toca Boca 4.1 ★★★★ 7 / 20 community members installed	>
Ø	Nature Sounds Relaxio 5.0 **** 5 / 20 community members installed	>
earth	Attenborough's Story of Life BBC Worldwide (Ltd) 5.0 **** 5 / 20 community members installed	>
	Nature Sounds Dream_Studio 4.5 ***** 2 / 20 community members installed	>
*	10000 Nature Wallpapers	٥

Community Discover Notifications Settings

Home

🗲 App info				
Nature 7 in your community installed this app				
PERMISSIONS	REVIEWS (3)			
2.8 ★★★ Trustworthy ★★ Secure ★★★★	PLAY STORE			
Comments				
Denise Sharper This app asks for permission to read and modify your contacts, but it never explains why. If you download it, turn the permission off! 2 months ago				
MK I use this app when I go walking with my son, but I'm confused why it wants to know my phone contacts 6 months ago				
Home Community Dis	over Notifications Settings			



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