EAGER: Digital Interventions for Reducing Social Networking Risks in Adolescents

Challenges:

Friend Spam: Social network infiltrations by adversaries posing as friends

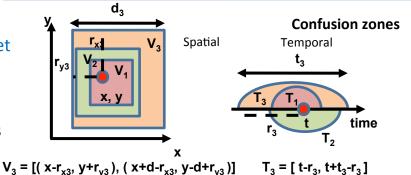
- Privacy concerns
- Malware distribution
- Disinformation spread

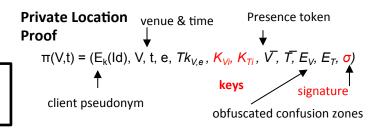
Solution:

- 1. Developed TrustPal app and performed user study:
- "People trust more the friends whom they have met or are meeting more frequently in person"
- 2. Developed GeoPal system to seamlessly collect user locations and establish trust in friends
- 3. Introduced private location proofs and random spatio-temporal confusion zone constructs to ensure *privacy*

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GeoPal 1. Private Location Proof Computation Venue V₁ PLP₁ PLP₂ PLP₁ PLP₂ Venue V₂ Alice's Phone 2. Friend Invitation GeoCheck PLP₁ GeoSignal PLP Bob's Phone





Scientific Impact:

- 1. Understand user vulnerability Discover dimensions and amplitude of friend based vulnerabilities in social nets
- 2. Understand adolescent motivation. Uncover just-in-time motivations and behaviors related to social network risks in adolescents, young adult and adult populations
- 3. Develop usable protection Build usable social net extensions that raise risk awareness and provide effective protection

Broader Impact:

- 1. Protect at-risk social network users from malicious behaviors
- 2. Sub-projects used in REU and RET programs at FIU
- 3. Established collaboration with K-8 teacher and students at Norman S. Edelcup/Sunny Isles Beach K-8 school