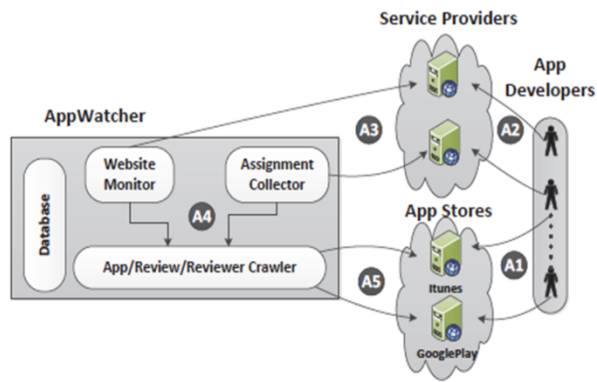# Reputation-Escalation-as-a-Service: Analyses and Defenses

Challenges:

- Reputation-escalation-as-a-service (REaaS) has taken many diverse forms
- E-commerce and mobile app markets are extremely large, making efficient detection of attackers and manipulated products difficult
- Ground truth is hard to establish

A crawler for penetrating underground app REaaS markets.

Scientific Impact:

- Reputation and trust is a major building block of information security
- Graph theory, social ties, and machine learning techniques are leveraged to address the reputation manipulation problem

Solution:

- A longitudinal and latitudinal study of mobile app underground markets and e-commence market (Taobao) to model attack behavior as well as establishing ground truth
- Develop defensive measures, which involve both technical approaches and market intervention.
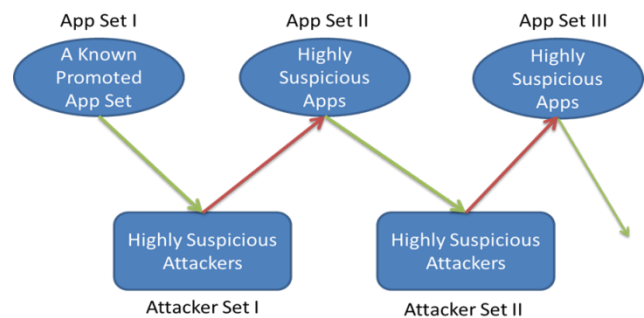
An iterative approach to identify abused apps and promotion attackers

Broader Impact:

- Cheating-based reputation manipulation is hurting the online markets in many negative ways. Our timely treatment of this problem is an important step.
- Non-traditional labs and course components may be developed through this project
- Potential to collaborate with app stores and ecommerce markets to jointly address the problem.