

# Context-Aware Incentives for Trustworthy Crowdsensing via Mobile Social Networks

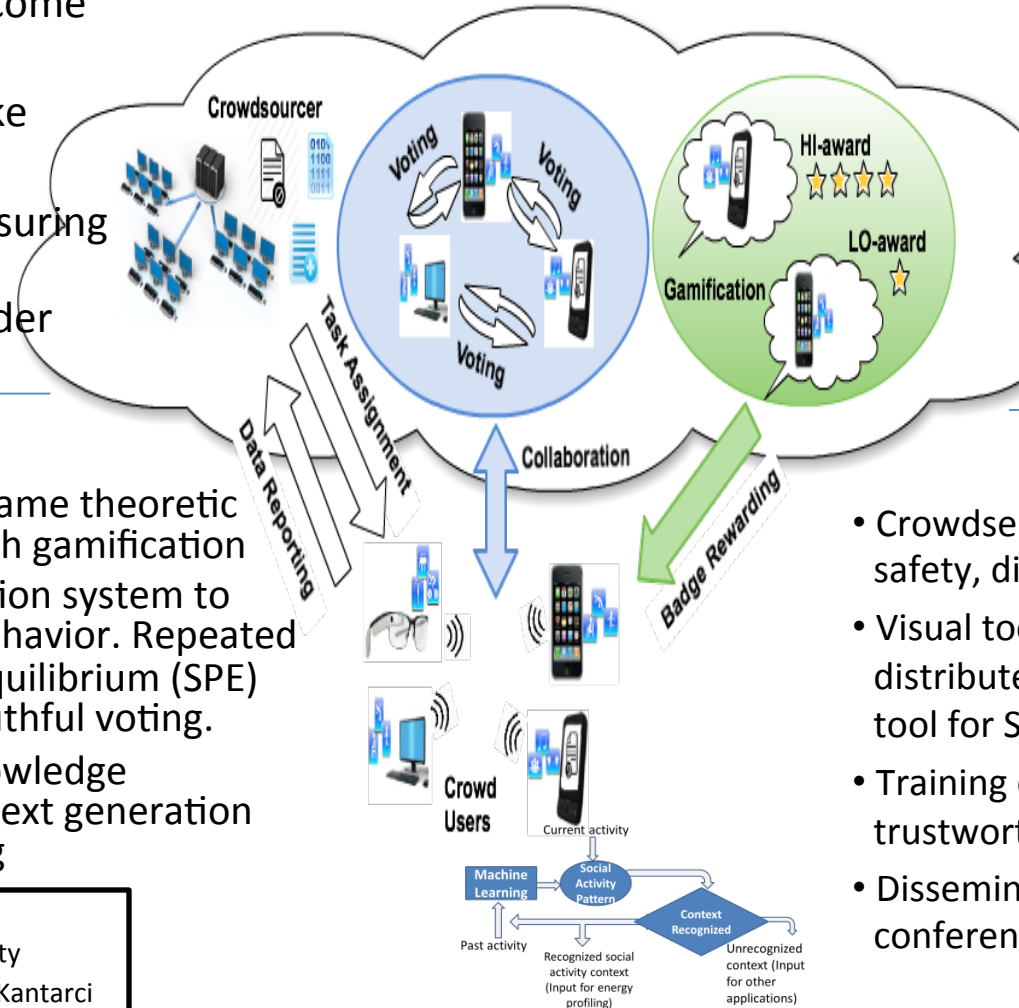
## Challenge:

- Incentives to overcome the human factor
- Preventing *Sybil*-like attacks
- Quantifying and ensuring data and user trustworthiness under battery limitations

## Solution:

- Collaborative and game theoretic decision making with gamification
- Vote-based reputation system to detect adversary behavior. Repeated Subgame Perfect Equilibrium (SPE) model to ensure truthful voting.
- Spatiotemporal knowledge abstraction for context generation and energy profiling

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## Scientific Impact:

- Collaborative decision making models in trustworthiness assurance
- Behaviometrics in crowdsensing
- Simultaneously addressing energy-efficient data collection and data trustworthiness

## Broader Impact:

- Crowdsensing applications in public safety, disaster preparedness, & d-health
- Visual tools for context generation and distributed estimation: An educational tool for STEM Integration.
- Training of 2 PhD students on trustworthiness and context-awareness.
- Dissemination : 5 journal articles, 7 conference papers as of Nov. 2016.