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January 19th , 2014
Homework #1.C

Summary/Response To:
Mobile Phones as Sensors for Enhancing Lifestyles
Quinn Jacobson, Nokia Research Center
https://www.youtube.com/watch?v=qVWVJIQUPZg

1. This talk provides a discussion on the uses of phones as sensor networks. Using phones for crowd-sourced traffic data is a specific case that hits a lot of conscerns with using phones as sensors: privacy, efficient collection, and data integrity. A couple interesting application ideas are mentioned, but not elaborated upon. This talk is an overview of problems related to phones as sensors.

2. Things learned
   • Data-sourced stereotyping effects non-contributors as well. Something I haven't considered.
   • Nokia is a major camera manufacturer.
3. Applications suggested by the author
   • Traffic Sensing
   • Auto-silent during a meeting
   • Specific weather
   • Group-Location correlation (best cubs bar)
4. Application ideas
   •

5. The biggest problem with using mobile phones as sensors is the variability of environment. Traditional sensor networks are immobile, and can be better calibrated to environment responses. Mobile phones can be subject to a huge variety of situations that would mess up sensor readings. They can be in pockets, passed between people, stored in odd locations, etc. This mostly applies to sensors other than GPS.

6. GPS has highly increased battery drain, and it requires that users share their exact position. This is a privacy concern; a user's data can be used to stalk them.

7. Wonders: How accurate is the integral under the accelerometer for position sensing? I've heard it's terribly innacurate, but I'd like to see the correlation.

8. Issues: The author hits a lot of the problems with using phones as sensors, but doesn't talk too much about new ideas; the talk seems stale and old. Though this might be because of it's age. The ideas around traffic data and privacy concerns have been know since the talk. Mainly, the question I failed to answer was: How will the information in this talk better prepare me for the future? I don't quite see velocity from this talk.