

Privacy in mobile measurement

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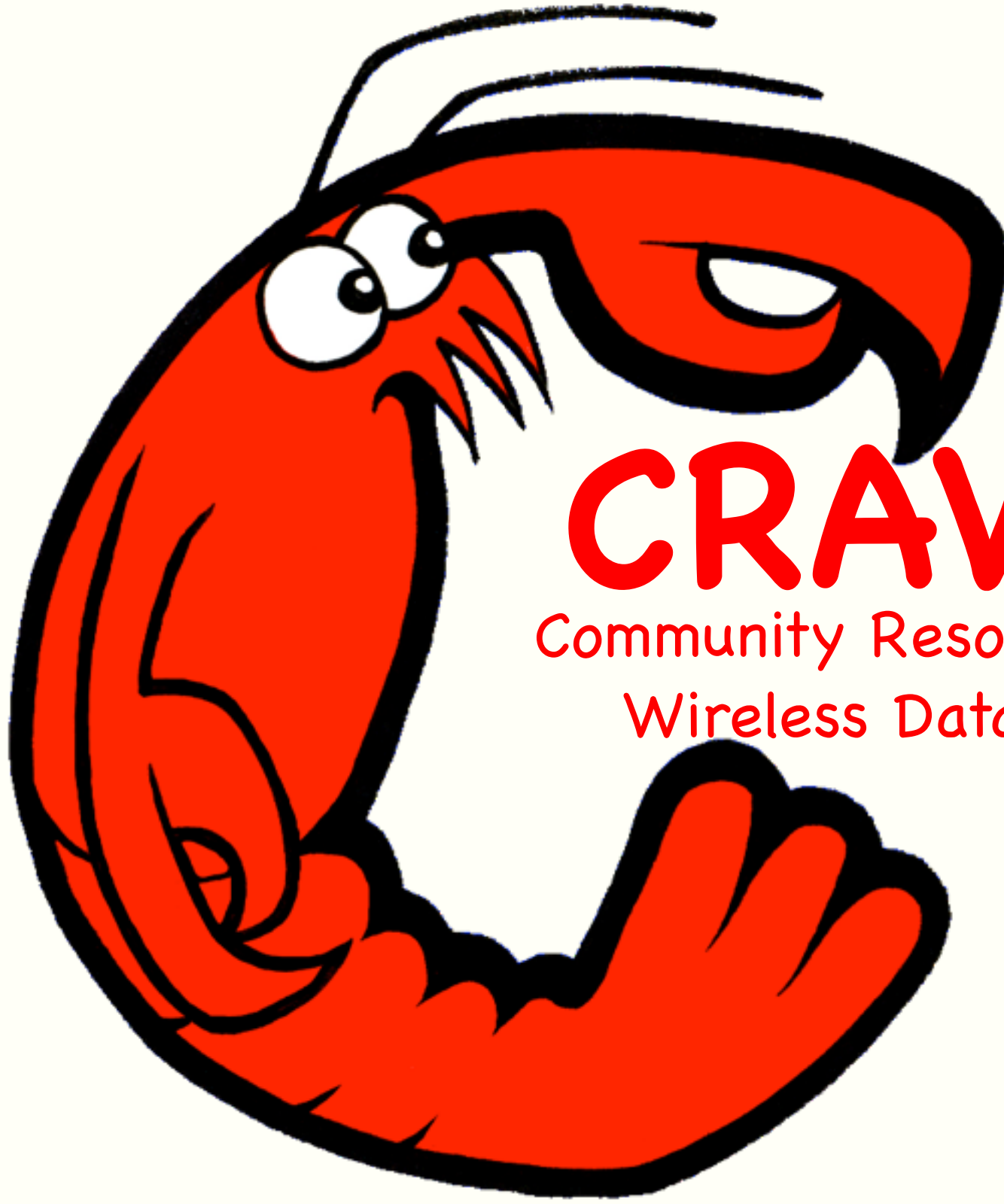
Dartmouth College

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Factors to consider

- IRB permission (or equivalent)
- Informed consent of subjects
 - (or an explicit waiver when not feasible)
 - plan ahead for rights to share data
- Securing data on mobile device(s), in transit, in repository
- Single-study cloud servers for receiving, storing, processing, archiving data
- Data is hard to collect; plan to share it!



CRAWDAD

Community Resource for Archiving
Wireless Data at Dartmouth

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Welcome to CRAWDAD

CRAWDAD is the Community Resource for Archiving Wireless Data At Dartmouth, a wireless network data resource for the research community. This archive has the capacity to store wireless trace data from many contributing locations, and staff to develop better tools for collecting, anonymizing, and analyzing the data. We work with community leaders to ensure that the archive meets the needs of the research community.

CRAWDAD is grateful to its current and past [sponsors](#).

Latest News

new CRAWDAD dataset - taxi mobility traces - October 31, 2014

A new dataset has been added to CRAWDAD.

[roma/taxi](#)

Dataset of mobility traces of taxi cabs in Rome, Italy.

Contributed by Lorenzo Bracciale, Marco Bonola, Pierpaolo Loreti, Giuseppe Bianchi, Raul Amici, Antonello Rabuffi.

This dataset contains mobility traces of taxi cabs in Rome, Italy. It contains GPS coordinates of approximately 320 taxis collected over 30 days.

Cheers,
Tristan

new CRAWDAD dataset - accelerometer measurements - October 27, 2014

A new dataset has been added to CRAWDAD.

[columbia/kinetic](#)

200 hours of accelerometer information recorded over 25 days from 5 participants.

Contributed by Mina Cong, Kanghwan Kim, Maria Gorlatova, John Sarik, John Kymissis, Gil Zussman.

CRAWDAD

- 🐸 Public archive of wireless/mobile data
- 🐸 116 datasets and tools (more on the way)
- 🐸 used in over 1,500 academic papers
- 🐸 6,702 users from over 100 countries
- 🐸 launched with support from NSF
- 🐸 supported by SIGMOBILE, SIGCOMM



CRAWDAD lessons learned

- 🐍 Careful documentation of metadata
- 🐍 Understand privacy regulations
 - 🐍 Wiretap law, HIPAA, FERPA, EU Privacy, ...
- 🐍 Gain permission of users & operators
- 🐍 Plan for data sanitization (~~anonymization~~)
- 🐍 When sharing, demand that recipients respect privacy of human subjects (e.g., disallow re-identification)