Motivation
People walk, bike, and run the same routes at the same time, every day.

This patterned, collective effort represents a potentially valuable yet underutilized resource for sensing, transporting goods, or completing small tasks.

Contributions
We embedded physical tasks into people’s daily life.

We incorporate just-in-time notifications in Libero to explore and identify what socio-technical factors influence physical tasking.

Libero
Libero is a crowdsourced package delivery system that collects package delivery requests and routes them to potential helpers.

College dormitory scenario
1. Susan forwards an email (received from dorm’s package center) for requesting delivery
2. John receives a just-in-time notification when he is nearby the package center
3. John shows the email to the mailroom staff, and picks up John’s package
4. John is already on his way to the dorm, so drops off the package at Susan’s door

Preliminary Study Results
Just-in-time notifications helped promoting delivery.

13 Package requests
8 Packages delivered
17% Notifications led to pick-ups

Main Motivators
Community building
“I help others because I can meet my friends who I haven’t seen for a while since new quarter began”

Reciprocity
“I was helped too often, so I felt obliged to help my friends in return at least once in a while.”

Future Work
Reduce possible cost of disruption by incorporating in-context notification, which takes into account finer-grained distance, motion activities, directions, time of day.

Introduce scrip system which enables active participants to have higher priorities in package delivery request.