PART 02 Boyle Heights Planning for Place

PART 02.1 Overview
The Boyle Heights Planning for Place project is using an innovative new approach to community engagement and data collection developed at UCLA and referred to as Participatory Sensing.

PART 02.2 Approach
Typically planners collect data without access to the detailed patterns of resident flow and context. The Boyle Heights Participatory Sensing Project will map, record, and synthesize data on the circulation of community members within the community and the conditions around this circulation. Community members will use smartphone applications to map and trace their everyday movements throughout Boyle Heights: where they work and study, where they gather, how they get there, and the conditions surrounding them.

PART 02.3 System Description
In particular, the Home application asks each participant to: (1) take a picture of what they eat for dinner, and label it with where it was prepared (home, restaurant, fast food, other); (2) to identify three things that need repair, take a picture, rate their level of concern, and label the type of problem (peeling paint, insects/rodents, water, heat/ac); (3) to document what makes them uncomfortable at home (overcrowded, noise, no place to do homework, yelling/violence, no peace, other), to optionally take a picture, and to rate their level of concern. The Path application captures a GPS trace of the participant’s path to school or work and asks them what transportation mode they use; to take pictures of places where they stop along the way (and for what purpose), as well as things that represent their neighborhood (people, places, events), and where and what they eat along the way. Using the School application, youth participants assess the physical conditions of their school, take a picture of their favorite teacher and what they eat for lunch; and describe their sense of safety and learning. Whereas adults use the Work application to identify up to three concerns, and label (safety, health, stress, pay) and rate them. The Afterschool/work application captures data about about where residents spend their time, what responsibilities they have then, and how safe they feel. In all of these cases, the participants responses are automatically geocoded, time-stamped, and uploaded to a secure database, where the community organizers have access to the statistics, stories, and images, shared by participants.

This project is an example of Participatory Sensing, an approach to data collection and interpretation in which individuals, acting alone or in groups, use personal mobile devices and web services to systematically explore interesting aspects of their worlds ranging from health to culture. Participatory Sensing makes it feasible and very low cost for communities to engage their members in data collection and analysis through the use of real time, real place, real context smartphone applications.