

PAPER

Personal Mobility

K. MADANAGOPAL, M. ERRAGUNTALA, R. MAYER. *MySidewalk – Incentivized crowdsourcing to improve walkable communities*. *Gerontechnology* 2018;17(Suppl):96s; <https://doi.org/10.4017/gt.2018.17.s.094.00> **Purpose** Staying physically active is essential to healthy aging. As society becomes more conscious of health, environment, and long-term sustainability concerns, there is an increasing demand to plan, build, and maintain the pedestrian infrastructure. While some communities have adequate resources to create and maintain sidewalks and pedestrian routes, many communities, particularly smaller communities, lack the resources to build and maintain sidewalks as a viable transportation option. Robust and accurate sidewalk inventory, condition assessment, and new sidewalk priority input data will promote optimum use of community development resources, promote pedestrian safety, increase community health, and promote sustainability of natural resources. The challenge is to provide an effective and inexpensive means of collecting sidewalk inventory data for planners and policy decision makers. **Method** We developed MySidewalk™ app, a novel crowdsourcing based approach that facilitates collection of sidewalk inventory and condition assessment data in a cost effective way (Figure 1). MySidewalk™ app is implemented as a mobile application that will allow local, state, and federal entities to collect and maintain accurate geospatial data about sidewalks in their jurisdictions, enabling informed decisions regarding sidewalk maintenance, enhancement, and new construction. In this paper, we discuss the system design, study and our assessment of the MySidewalk™ app along with several crowd incentive mechanisms that can motivate the public to participate in sidewalk data collection. Sustained participation is a key factor in the success of crowdsourcing systems, which greatly depends on the user motivation. We explored several crowd-incentive mechanisms to motivate the public to use the MySidewalk™ app and implemented these features into the mobile and web applications of MySidewalk. **Results & Discussion** The MySidewalk™ app was piloted at one of the walkability workshops conducted by AARP walkable communities in the city of Houston. Around 15 members of AARP walkable community used the MySidewalk™ application for their walkability workshop and provided feedback on MySidewalk features and usability. Our results suggest that, if carefully deployed, the crowdsourcing method of sidewalk inventory collection can provide direct community feedback to sidewalk construction priorities and improve public understanding of policy issues involving pedestrians.

Keywords: crowdsourcing, sidewalk inventory collection
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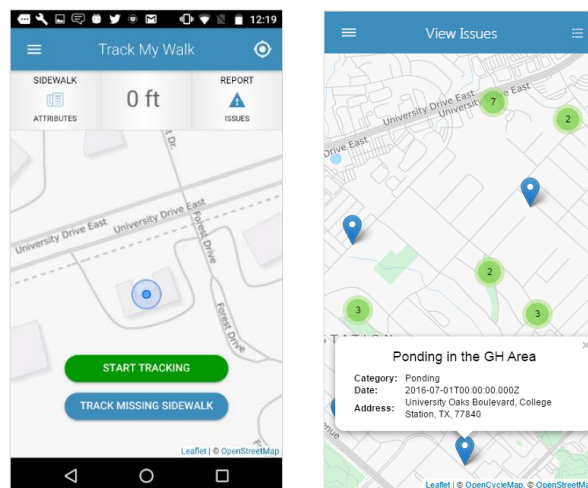


Figure 1. MySidewalk – App Screens