SOCIAL MEDIA-BASED CIVIC ENGAGEMENT FOR DENGUE PREVENTION IN SRI LANKA

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Dengue is a vector-borne infectious disease that has historically posed continued threats to populations living in both developed and developing countries. Dengue affects more than 50 million people in the world every year, in particular countries in the Asia-Pacific region that share more than 70% of the disease burden. The island nation of Sri Lanka has been grappling with severe dengue outbreaks recently, recording 40,000 cases in 2012 with dengue-related mortalities peaking in the last four years.

Researchers at the Centre of Social Media Innovations for Communities (COSMIC) conducted a needs assessment with public health officials and the general public in the capital city (and epicentre of dengue), Colombo, to identify informational and technological needs with regards to dengue prevention. Based on the findings of this needs assessment, we designed and developed a mobile phone-based social media system named Mo-Buzz to encourage civic engagement in dengue prevention efforts.

Two parts of the system are developed. The health systems version digitizes the surveillance and community activities of public health inspectors (PHIs) in Sri Lanka. Equipped with cost-effective tablet computers, PHIs can receive digitized dengue outbreak predictions, report formal dengue investigations with a click of a button, and provide interactive health education on dengue prevention to community members. For the general public, Mo-Buzz will optimize the integrated affordances of mobile phones and social media for generating a citizen-centric system that can bolster Dengue prevention efforts by integrating three conceptual components: predictive hotspot mapping, civic engagement and health communication. The purpose of predictive hotspot mapping is aiding citizens with a priori outbreak information so that they can protect themselves using scientific methods. The purpose of civic engagement is to empower them with a means to report breeding sites, symptoms and mosquito bites by sending texts, images and/or videos using social media technologies. The purpose of health communication is
to deliver customized health messages based on the surveillance, taking place through weather-
data from hotspots and citizen-data using on-ground reportage.

The project involved a complex web of collaborations that transcended disciplinary (or
epistemological) boundaries and stakeholder groups. In this paper, we chronicle the development
of our social media-based system, and detail the process, promises, and challenges of trans-
disciplinary collaboration required to launch a public health intervention that is pivoted on the
concept of civic engagement. In addition, we describe our experience of collaboration with key
stakeholders that included the local university, the largest telecommunications company in Sri
Lanka, and the Colombo Municipal Council (CMC). We conclude by presenting our plans for
evaluating the adoption and diffusion of our system, and detailing the conceptual and practical
implications of our work on civic engagement studies.