MOBILE COMMUNICATION TO RESOLVE IMMOBILITIES FOR GERIATRIC CARE: mHEALTH IN THE SMART CITY

STATEMENT OF RESEARCH PROJECT

There is a significant increase in the proportion of elderly Singaporeans from 8.8% in 2009 to 14.4% in 2019 (Singapore Department of Statistics, 2019). Data estimates also revealed that one in two Singaporean elderlies might have disabilities at some point in their lives (Ho & Huang, 2018). Elderly care is perceived through the lens of both cost-effective and efficient health care systems (Eggermont et al., 2006). However, with families of the elderly overwhelmed, the growth of long-term, home-based care modality is assumed to address aging-related health concerns (Huang, Yeoh, & Toyota, 2012).

Within such a milieu, smart nation planners envision the elderly as silver surfers, senior citizens who are happier and healthier due to being connected, tech-savvy, and empowered (Selwyn, 2004a). The smart nation premise rests on multiple assumptions: firstly, that technology access and use produce beneficial and desirable outcomes for all of society; and secondly, that particular segments are not only connected and technologically able, but that being so results in enhanced well-being. Moreover, the use of modern information and communication technologies (ICTs), is seen to enable less- or un-productive members of the population to work past retirement ages (Plaza et al., 2011).

However, adoption rates of ICTs among the elderly are currently seen as problematic (Heart & Kalderon, 2013; Niehaves and Plattfaut, 2014). Further, vulnerable, lower-income, and less healthy elderly who might benefit the most from ICT use tend to have less access and are less technological savvy than their healthier, well-off counterparts (Cresci et al., 2010; Ihm & Hsieh, 2015). To address this issue, technology developers have focused on increasing versatility and technical advancement rather than on whether any of the features or applications actually meet the elderly’s own goals for well-being (Coeckelbergh, 2012).

This research takes advantage of the interdisciplinary perspectives of Medicine and Communication Studies, combining the medical perspectives with that of information and communication technologies. In particular we focus on the domain of mHealth, or the deployment of mobile technologies in healthcare (Chib, 2010). It is vital to understand how the elderly perceive the role of such advanced technologies in their lives (Dickinson & Gregor, 2006) and what needs they want current and future technologies to meet. The aim is that these results can serve as a reference point for policy makers and provides a snapshot of where today’s elderly stand with respect to smart nation technologies.

The project will focus on the experiences of the elderly and their caregivers in Singapore, and the meanings and practices ascribed to the movements associated with mHealth use. As such, this project asks: (1) How does the use of mHealth applications influence the way users (elderly or caregivers) perceive their own or others’ healthcare? (2) How do elderly participate in the creation and navigation of healthcare spaces alongside their use of mHealth? (3) How does the use of mHealth applications enhance, diminish, or (re)produce (in)accessibility of healthcare?

SCOPE OF WORK FOR SELECTED PHD STUDENT

A multi-method design aided by mobile methodologies will examine users’ experiences and perceptions in using mHealth through the mobilities lens. The data will be collected from elderly users
and caregivers in Singapore who use their smartphones for: (1) accessing educational websites and videos for health, (2) using health and wellness applications, and (3) using social messaging platforms for communicating health concerns. Data collection techniques will include a review of mHealth apps, in-depth interviews, and mobile ethnography.

First, the review of mHealth apps will examine the discourses, identities, and spaces of these applications through its material structure — its interface, scripts, and other design features.

Secondly, a minimum of 50 qualitative interviews will be undertaken to understand how participants make sense of their experiences and perspectives in using mHealth and in performing mobilities. The interview will focus on the motivations and experiences in using mHealth, decision-making to access or provide healthcare, and the movement of the users from where to where.

Thirdly, mobile ethnographies will be employed to trace respondents’ movements from their home or transfer points (e.g., waiting rooms, cafes, parks, transport terminals, etc.) to their destinations (e.g., private clinics, community health centers, hospitals, wellness center, market, food establishments, pharmacy, etc.). The researcher will be required to travel with the participants, and employ data-collectors via mobile phone, video camera, and location-based technologies to document the experiences during the movement. The focus is on understanding how participant experience health-related mobility as it unfolds, paying attention to how participants socialize and navigate spaces.

The analysis of the data will focus on the varied ways the participants used their mobile communication platforms, including their use of mHealth applications, in performing therapeutic mobilities. The data will be coded according to the different factors and motivations that promote or impede the performance of therapeutic mobilities.