

## DIGITAL HEALTH LITERACY: DEVELOPING KNOWLEDGE MODELS AMONGST ASIAN POPULATIONS

### STATEMENT OF RESEARCH PROJECT

An important set of skills that can promote volitional and positive health behaviours is health literacy (Nutbeam, 2008; WHO, 2013). Defined as “the degree to which individuals can obtain, process, understand, and communicate about health-related information needed to make informed health decisions”, health literacy refers to a set of health information-processing skills that contributes to greater health outcomes (Berkman, Davis, & McCormack, 2010). Higher levels of health literacy can lead to healthier cities, more resilient citizens, and significantly reduced health system costs (WHO 2013). With rapid development of digital technology, a related set of skills that refer to the ability of an individual to make sense of the health resources available on the Internet has been proposed. Researchers have termed this new set of skills “eHealth literacy” (Norman & Skinner, 2006b, Stellefson et al., 2011). People with strong eHealth literacy skills are more likely to be self-reliant health-information seekers that display healthier lifestyle choices.

Although there is growing amount of research in Health literacy involving digital skills (known as Digital Literacy or e-Health Literacy), there remains several gaps in our understanding. First, existing health literacy studies have concentrated on examining the outcomes of health literacy, with few studies having looked at the how eHealth and health literacy is developed. Specifically, there remains a lack of research that has examined social antecedents of health literacy. Second, digital or eHealth literacy is not sufficiently understood as a construct, with claims that existing measures lack validity (van der Vaart et al., 2011), and a lack of empirical validation of how eHealth literacy is obtained. Third, existing health literacy studies are concentrated in adult populations in the west. Few studies have examined health literacy in populations outside of the west. Hence research objectives may include, BUT NOT BE LIMITED TO, some of the following facets:

1. To create and assess a robust, reliable, and highly valid set of instruments to measure eHealth literacy, which future researchers can adopt and use
2. Utilize selected theoretical concepts or health behavior models to understand how social and institutional factors help target groups develop eHealth literacy. Assess the effect of eHealth Literacy on health related behaviors.
3. Conduct an assessment of eHealth competency and effects among a representative sample of selected population in Singapore, and if time permits, in regional neighbour(s) with fast growing urban populations such as Indonesia and Vietnam.

### SCOPE OF WORK FOR SELECTED PHD STUDENT

Our proposed scope for PhD student will involve a significant part of this research project. The nature of the interdisciplinary PhD means that the candidate will need to spend some time in consultation with the co-supervisors from the two different schools plus the mentor to develop a strong Global Asia thesis.

#### Before confirmation:

The student will be involved in utilizing a range of quantitative and qualitative social scientific methods in understanding eHealth literacy as a concept, how it is acquired, and its effects amongst different populations in three countries. He/she will need to conduct a systematic review of the literature to obtain and display a comprehensive understanding of the existing research. Based on the knowledge acquired, the student will be involved in shaping the key research plan and hypotheses.

The student will need to set up and conduct qualitative interviews among healthcare providers (working in primary and secondary care), public health services, health educators and health policy makers as well as lay people (in Singapore and a regional Asian neighbour) in order to better understand what constitutes eHealth literacy and how it develops.

After confirmation:

We expect the student to coordinate and execute data collection, for example via a nationally representative longitudinal study of eHealth literacy among population groups in Singapore and selected country.

Depending on the progress of the PhD, the committee shall determine whether student should be involved in extended work in more Asian countries.