

ASIA'S CHALLENGES IN DIGITAL HEALTH AND INTERVENTIONS FOR THE AGEING POPULATION

STATEMENT OF RESEARCH PROJECT

The World Health Organization (WHO) defined healthy ageing (WHO, 2015) as "the process of developing and maintaining the functional ability that enables wellbeing in older age". The holistic connection between gerontechnology and healthy ageing implies the necessity of translating technological advancements to achieve successful ageing outcomes. Gerontechnology, which stems from the combination of 'gerontology' and 'technology,' focuses on studying and developing tools, services, and environments that support elderly individuals and prevent the decline in functional capacity associated with ageing. This interdisciplinary field bridges existing and emerging technologies with the needs of the ageing population.

Achieving this goal requires a consensus on the definition of relevant technologies, a reassessment of work strategies, and the development of innovative business models. Furthermore, it is essential to create a network of multi-stakeholders to explore the needs of the older population and apply both new and existing technologies to promote ageing in place.

Asia's rapidly ageing population presents complex challenges for applying gerontechnology in practice, given the growing demand for solutions across healthcare, housing, communication, safety, comfort, mobility, leisure, and work domains.

Major challenges faced:

1. How can awareness and adoption of technology be increased among older adults?
2. How can collaboration be fostered to enhance the development of gerontechnology?
3. How can systemic changes be catalyzed in gerontechnology to translate research into practical adoption among seniors?

SCOPE OF WORK FOR SELECTED PHD STUDENT

To address these challenges, we seek PhD proposals that incorporate relevant communication and information theories to develop robust theoretical models. These models will serve as a foundation for exploring the evolving digital health and intervention landscapes in Asia, aiding in the identification of key gaps and challenges. Additionally, they will provide insights for crafting multi-disciplinary, culturally tailored strategies to effectively tackle these challenges.

The proposed scope of work outlines a systematic approach to addressing the challenges of digital health interventions for the aging population in Asia over four years, focusing on research, model and intervention development and testing:

Year 1 & 2 (before Qualifying Examination): Literature Review, Needs Assessment, Research Questions and Hypotheses, Research Model

1. Conduct Comprehensive Literature Review
 - Explore existing research on digital health interventions for aging populations in Asia.
 - Identify gaps in knowledge and understanding regarding challenges faced by older adults in accessing digital health solutions.
2. Needs Assessment
 - Conduct surveys and focus groups with older adults, healthcare providers, and policymakers to identify specific challenges and barriers to digital health adoption.
 - Analyze demographic variations in technology access and health literacy among different regions in Asia.

3. Stakeholder Engagement
 - Establish partnerships with local healthcare organizations, governmental bodies, and community groups to facilitate collaboration and data collection.
4. Formulate Research Questions and Hypotheses, and Communication and Information Model
 - Formulate Research Questions and Hypotheses underpinned by a new model tailored to the needs of older adults in Asia, focusing on cultural and linguistic diversity.
5. Dissemination of Findings, Qualifying Examination (QE) Report and Publication
 - Share results with stakeholders, including community organizations, healthcare providers, and policymakers, through workshops, reports, and conferences.
 - Complete and submit the QE Report detailing research findings, model developments, intervention outcomes, and policy recommendations.
 - Publish findings in academic journals and present at international conferences to contribute to the global dialogue on digital health and aging. Write 1 journal paper and 1 conference paper.

Year 3 & 4 (after QE): Design and Test Model and Intervention

6. Pilot Testing of Research Model
 - Test model in selected communities to evaluate their effectiveness in improving engagement, health outcomes and health ownership.
 - Collect qualitative and quantitative data to assess user experience, satisfaction, acceptance and adoption.
7. Data Analysis and Refinement
 - Analyze data collected to refine research model.
8. Develop and Test an Intervention
 - Develop an intervention programme assess the effectiveness of interventions on health outcomes, health ownership, engagement levels, overall quality of life among older adults.
 - Utilize mixed-methods approaches, including surveys, interviews, and health outcome metrics.
9. Dissemination of Findings, Thesis and Publication
 - Share results with stakeholders, including community organizations, healthcare providers, and policymakers, through workshops, reports, and conferences.
 - Complete and submit the thesis detailing research findings, model development, intervention outcomes, and policy recommendations.
 - Publish findings in academic journals and present at international conferences to contribute to the global dialogue on digital health and aging. Write 1 journal paper and 1 conference paper.