



School of Computing, Engineering, and the Built Environment Edinburgh Napier University

PHD STUDENT PROJECT

Funding and application details

Funding status: Self funded students only

Application instructions:

Detailed instructions are available at <https://blogs.napier.ac.uk/scebe-research/available-phd-student-projects/>

Prospective candidates are encouraged to contact the Director of Studies (see details below) to discuss the project and their suitability for it.

Project details

Supervisory Team:

- DIRECTOR OF STUDY: JP Vargheese (Email: J.Vargheese@napier.ac.uk)
- 2ND SUPERVISOR:

Subject Group: Applied informatics

Research Areas: Computer Science

Project Title: Intelligent proxies to support health and social care for older adults.

Project description:

As the ageing population continues to grow, there is increasing pressure on health and social care resources designed to support healthy ageing. Socially assistive robots (SACs) and intelligent virtual agents (IVAs) may help alleviate this pressure, through the provision of digital health and social care services. This may include the provision of activities designed to facilitate cognitive stimulation, social interaction, entertainment, and monitoring of physical and mental health.

SACs and IVAs offer a potential means for delivering behaviour change interventions designed to reduce barriers and obstacles to healthy independent living. In addition, SACs and IVAs may be beneficial in supporting health and social

care professionals, and others responsible for caring for older adults, who are consistently in extensive demand. This includes friends, family, carers, and others, whom older adults frequently rely upon. Unofficial proxies are among this group and assist older adults with digital activities of daily life such as managing online prescriptions, appointments, banking, email, and social media.

The design, development, and evaluation of such digital health and social care services for older adults is significantly challenging, due to a broad range of diverse issues related to the digital divide, technological acceptability trust, privacy, and security.

This research will investigate how SACs and or IVAs may support independent living for older adults while simultaneously supporting health and social care workers in their duties. This research will build upon related works to demonstrate how SACs and or IVAs acting as intelligent proxies may help in the delivery of high-quality effective health and social care for older adults. This will involve engaging with stakeholders and applying state of the art research methods in Human Computer Interaction.

References:

Candidate characteristics

Education:

A first-class honours degree, or a distinction at master level, or equivalent achievements in Computing Science, Human Computer Interaction

Subject knowledge:

- Human Computer interaction,
- User experience design,
- Research methods

Essential attributes:

- Self motivated, self learning, organisational and time-management skills, persistence and resilience, attention to detail, ability and willingness to collaborate with others

Desirable attributes:

- Knowledge and experience of machine learning, statistical analysis, user research, programming