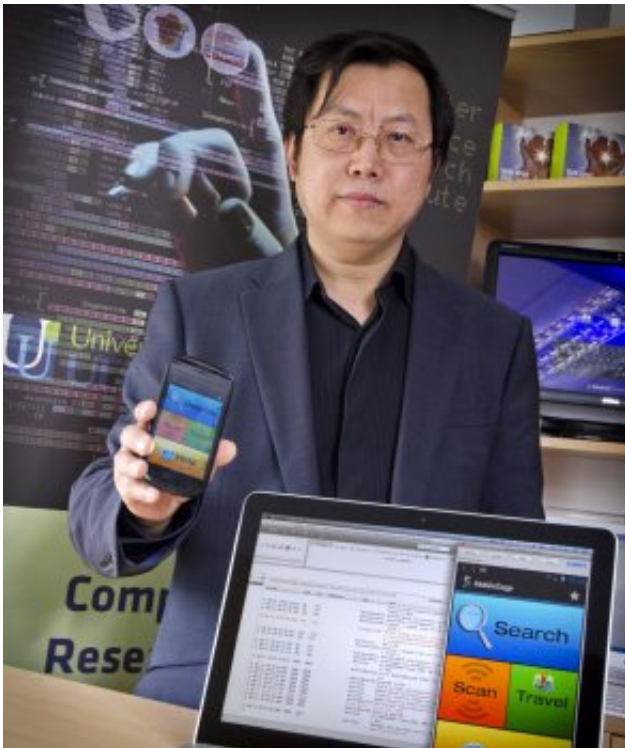# Scientists develop smartphone 'assistance agent' for older people

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Dr Luke Chen, University of Ulster.

A new smartphone application, developed by scientists at the University of Ulster, which could help older people engage fully in an increasingly self-serve society, may be ready for use by the end of the year.

A research team, from the University's Computer Science Research Institute, at Jordanstown, is currently working on the app (dubbed as

Help-on-Demand (HoD) assistance agent), which will provide location-based, context-sensitive and personalised assistance allowing older people to carry out and solve everyday tasks and problems.

The University of Ulster team is led by Dr Liming Chen, Professor Chris Nugent and Dr Mark Donnelly and includes researchers William Burns and Kerry Skillen.

Dr Chen explained: "A self-serve society is rapidly developing where services can now be accessed and transactions completed by way of digital solutions, in most cases operated by the user interacting directly with the device, i.e. ticket and parking meters, airport check-in machines and also gadgets and home appliances.

"Many senior citizens find these new technologies overwhelming and complicated and as a result, become anxious. This anxiety can make them reluctant to participate in social and cultural activities.

"The HoD assistance agent is able to provide context-aware personalised help-on-demand assistance services. Each user will have a specifically tailored user interface, which will accommodate health problems such as dyslexia and poor vision, and also location based context such as internet connectivity.

It is hoped that the smartphone 'assistance agent' will be ready for real world trial and adoption by the end of the year."

Development of the HoD assistance agent is part of The Situated Adaptive Guidance for the Mobile Elderly (MobileSage) research project (mobilesage.eu/) funded by the European Ambient Assisted Living Joint Program (AAL JP)

Dr Chen, Professor Nugent and Dr Donnelly are members of the

University of Ulster's Smart Environments Research Group (SERG) (serg.ulster.ac.uk), which has been undertaking research related to assistive living and connected health aiming to increase autonomy, self-confidence and mobility for older adults.

Added Dr Chen: "Our ongoing MobileSage research could radically improve life for older people and help them maintain their independence.

"It will also ease the burden on family members, care persons, and other secondary end-users as the primary end-user will be equipped to solve daily challenges themselves."

Provided by University of Ulster