

Impact of ageing on smart phone use to be examined

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Age-related difficulties in texting and emailing on smart phones will be investigated by a University of Strathclyde academic.

Dr Mark Dunlop will examine the effect of getting older on people's ability to use touch-screen mobile technologies, including [smart phones](#). He believes this issue will become increasingly important as the workforce ages.

Dr Dunlop said: "It's estimated around 25% of emails are now opened on mobiles and as the older working population rises – due to both ageing population demographics and increasing retirement age – more workers will need to keep using their mobile technologies for work into their mid-to-late 60s.

"Furthermore, many people will want to continue professional, social and lifestyle usage into their late retirement, as the technologies can support increased community involvement and personal independence.

"Given increasing retirement ages and increasing use of smartphones for both work and social life, this research could have a major impact on personal wellbeing and the UK economy.

"Furthermore, upcoming EU legislation is likely to require services that are seen as critical for the citizen to participate in society to be accessible to disabled and older people. Age UK states this is likely to cover information and communication technologies, including mobile

phones, and encourages the UK government to support the legislation."

Most mobile technologies now rely on touch-screen keyboards for popular functions such as email, social networking, texting and web or map searches. Dr Dunlop told how the ageing process – associated with a decline in hearing, sight, working memory, selective attention and motor control – can interfere with people's ability to use mobile technology.

Dr Dunlop, of the Computer and Information Sciences Department in Strathclyde's Science Faculty, said: "While there have been numerous studies into text entry usage on touchscreens, there has been very little work studying the effects of ageing on text entry – and none on modern touch-screen phones where reduced visual acuity, reduced motor control and reduced working memory are all likely to have an impact.

"At the moment, industry is focussed on targeting the current main market of younger users. Our initial studies have also shown that older users may be willing to adopt new keyboard layouts and technologies more than younger users, who have different experiences with the QWERTY layout."

As part of Dr Dunlop's two-year investigation – backed with £286,000 of Engineering and Physical Sciences Research Council funding – his research team will work with older adults to conduct participatory design sessions of prototype keyboards, to test how effectively they can use different forms of touch-screen entry methods.

The study will also look at how text entry for older people is affected by the design features of most modern mobile technologies, such as soft keys that are glossy, require almost no force to activate and have no visible gap between them.

Dr Dunlop added: "The project is also likely to give initial insights into

the needs of other specific groups of people that could be taken up with future research, for example looking at systems to support tremor problems associated with Parkinson's disease, or for highly-visible keyboards for visually-impaired people."

Provided by University of Strathclyde, Glasgow

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