An Evaluation of Older Adults Use of iPads in Eleven UK Care-Homes

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ABSTRACT

The introduction of the iPad and similar form-factor devices (e.g. Samsung Galaxy Tab, Asus Eee Pad and Motorola Xoom) has provided a unique opportunity for older adults to engage with mobile computing devices and platforms. Engagement with 'traditional' computing devices amongst older adults, including arguably mobile devices, such as laptop computers is low due to dexterity issues amongst this population (Hertzum & Hornbaek, 2010). Whilst the iPad removes some of the traditional barriers to computer engagement, new barriers including weight and screen reflection are evident to an older user group. This paper provides an exploratory evaluation of how older adults in 11 UK care-home settings and the staff engaged in their care are using iPads to help improve communication, build physical social networks amongst residents, staff and family members, and map the most frequently used applications by an older population during a six-month pilot period. Results suggest that applications involving information searching for personally related and historical information were most valued by older adults. Further, older adults and care staff alike report mainly positive experiences of iPad use in care settings including the increased opportunities for social interaction and the enhancement of intergenerational communication. Additionally, the barriers to use (e.g. device weight) are often overcome by low-tech adaptations and adjustment when using the device. This paper argues that the portability and adaptive nature of the iPad combined with the increased social interaction afforded by device could increase quality of life in care settings.

Keywords: Applications, Care Setting, Communication, Intergenerational, iPad, Older Adults

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INTRODUCTION

Older Adults and Computer Use

The ubiquity of mobile computing coupled with Internet use have arguably become accepted technology for routine communication and social interaction (Bargh & McKenna, 2004; Pew Internet and American Life Project, 2005; Pfeil, Arjan, & Zaphiris, 2009). Despite the widespread use of computers, recent Nationally representative survey data, suggests that older adults (65 years of age and over) make-up only a small proportion of current computer and Internet users across the United Kingdom (Dutton & Blank, 2011). Whilst other countries report similar trends e.g. USA (Fox, 2004) much of the available data pre-dates the mainstream advent of tablet computers. It should also be noted that the definition of ‘older adult’ is also problematic since many definitions rely on chronological age, however it remains unclear and at what point an individual is actually considered ‘old’. Chronological age remains simply a measure of how old a person is but not whether a person has aged per se. The chronological age heralding the onset of ‘older adult’ in Western societies is approximated between 60-65 years of age, whilst in Eastern societies this can range between 50-70 years of age (Decker, 1980). Whilst psychogerontologists tend to adopt a similar span, ranging between 60-65 years of age (Rebok et al., 1986), they acknowledge that there is no single point at which an individual becomes ‘old’, and chronological age is an arbitrary and not particularly accurate measure of age. The definition of the constitution of ‘older adult’ is an important one since 16% of the UK population (approximately 11 million people) is aged 65 years and over with this percentage estimated to rise to 25% (approximately 17 million people) by 2060 (Shaw, 2004). For the purposes of this paper, older adulthood will therefore be defined as 65 years and older.

The use of computers and the Internet by older adults is both a relatively recent phenomenon and one that has enjoyed rapid expansion during the last decade (Fox, 2004). A number of socio-demographic factors including the adoption of Internet and computer use at a younger age (Lieb, 2005), increased affluence (Fox, 2004) and level of educational achievement (Rideout et al., 2005), have been linked to the increase in adoption. Furthermore, the sheer amount of people accessing the internet (77% of UK households with Internet access, ONS, 2011) and the ways in which it is accessed (45% of Internet users access the Internet via mobile devices, ONS, 2011), have further helped to fuel the increase in use by older adults. It is reasonable to assume that an increased proportion of the adults who will constitute the 17 million older adults by 2060 will be computer literate, and will have previously used computing devices for communication and social interaction. Through prior experience of computing devices, some of the issues associated with technology uptake and sustained use e.g. self-efficacy (Czaja, Charness, & Fisk, 2006) will be addressed.

Despite such rapid expansion and prior experience, a number of socio-technological barriers might prevent older adults from fully engaging with computers and the Internet. Tak & Hong (2005), suggest older adults are more likely to engage with computers when a friend or adult sibling is also a computer user, and research further suggests older adults require a period of adjustment and training to help build confidence when using computing equipment (Dauz et al., 2004; Saunder, 2004). The role of self-efficacy (an individuals perceived belief with regard to coping and possibility of success) previously associated with technology uptake and use (Czaja, Charness, & Fisk, 2006), maybe pivotal in building confidence with computing devices of differing form-factors. Further, intellectual ability is considered a key component in computing use (Czaja et al., 2006), which is of particular importance when considering older adults, since older adults in care settings often demonstrate cognitive impairment (Luppa et al., 2010). Such increases in cognitive impairment have been associated with both a decline in the ability to use technology (Malinowsky et
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