

Chapter 8

Thinking Outside the Box: Novel Uses of Technology to Promote Well-Being in Older Populations

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ABSTRACT

This chapter aims to examine the adoption of technology by older adults within a framework of current gerontological theories and research. Cognitive, physical, mental and interpersonal development and change later in life will also be described. Two main psychological frameworks for understanding successful ageing are briefly outlined and within these frameworks, the role of technology in enhancing the lives of older adults, regardless of the level at which they incorporate it into their lives, will be discussed. The chapter concludes with suggestions for removing barriers and enhancing uptake of technology for older adults, helping to bridge the grey digital divide.

TECHNOLOGY IN THE LIVES OF OLDER ADULTS

Parents-in-law Jack (83 yrs) and Jill (81 yrs) are mentally alert, have bustling social lives and are physically active. However the degree to which they incorporate and benefit from bringing technology into their lives is very different. Since his retirement as a civil engineer, Jack has increasingly explored technology as a recreational pursuit, as well as for financial gain and as a means of connecting with family and friends.

He spends several hours each day trading stocks online, chatting to his overseas grandchildren on Skype, updating his Facebook page and trading and buying on eBay. Indeed, on a recent road-trip Jack became so engrossed in a new navigation application that he had downloaded for his iPhone, that Jill, baffled by such obsessions, snapped “No, I don’t want to know how long it would take to drive from Brisbane to Broome!”. While Jack has found another world of engagement in modern technology, Jill finds it a daunting and unconquerable environment.

Jill, a retired physiotherapist, does not own a computer and still records all important cor-

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respondence on carbon paper. She has a mobile phone at her family's insistence but rarely uses it and often only does so when sitting at her desk, following the instructions written down by her grandchildren. At one point she enrolled in a computer course at her local library but pulled out after deciding there would be little opportunity nor inclination to use those skills in her current life. Indeed, she sees little point in changing her routines to incorporate technology so long as the traditional systems are still working. While this attitude has merit, Jill often becomes frustrated operating in a modern world that relies on such technology, and doesn't effectively cater for individuals who do not wish to take on the same level of technology in their lives.

The case of Jack and Jill is not an uncommon one and represents two ends of a spectrum in an older cohort's attitudes towards technology and the extent to which it is incorporated into their lives. As the baby boomer generation continues to age, concepts of the grey digital divide continue to evolve. This is an issue which is very salient not only to individuals in society, but also to the business, education and social services sectors, along with governments and policy makers. As both the proportion of older adults in the population and the use of technology in everyday life increases, this is an issue that will assume increasing importance in the coming decades (McMurtrey, McGaughey, & Downey, 2009).

Recent research points to many factors which can have a profound impact on health and well-being in later life. Social network size (Bennett, Schneider, Tang, Arnold, & Wilson, 2006), continued exercise (Abbott et al., 2004), mental stimulation (Coyle, 2003) and pursuit of leisure activities (Verghese et al., 2003) have all been shown to have positive effects on morbidity and mortality later in life. Advances in medical technologies have contributed to increasing the lifespan (particularly for those over age 80), and assistive technology has improved daily functioning through improvements or augmentation of the senses, mobility

and aspects of independent living. But perhaps the greatest growth (as well as potential growth) has been in the uptake of technologies related to use of leisure time, such as increased use of social networking sites to supplement and expand social networks, gathering information or even pursuing educational opportunities over the internet, the use of technology to organise and record personal documents/photos and use of e-book readers. An example of this latter innovation and its particular applicability to an older population is Amazon's Kindle program with its ease of manipulation and print-size adjustment functions (Robbins, 2009).

In many ways the incredible diversity of technologies on offer is in itself a good match for older adults. As a group older adults are more diverse than younger populations physiologically, psychologically, and socially; thus technology, as such a diverse medium in itself, seems to be ideally positioned to adapt to the older adult cohort (Hertzog & Light, 2004).

TECHNOLOGY ALLOWS PERSONAL GROWTH THROUGH LATER LIFE

Professor Gene Cohen, Director of the Center on Aging, Health and Humanities at George Washington University, author of the popular book *The Mature Mind* (2005), has put forward a theory of the developmental stages through which older adults progress later in life (Cohen, 2001). He labels these as *phases for human potential in the second half of life*. Technology can play a strong role in aiding an individual through these phases. Using Jack's case study as a discussion point, the way in which this can be done will be illustrated by further exploring his personal trajectory through the last four decades of his life.

According to Cohen, during the 40s to 50s there is a phase called "midlife re-evaluation" in which individuals search for ways to make life and work more gratifying and meaningful. Though often characterised (and caricatured) in

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