Chapter 9
Mindfulness as an Opportunity to Narrow the Grey Digital Divide

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ABSTRACT
With older adults living longer than ever before, more in this age demographic are seeking ways to stay engaged, happy, and healthy in the final decades of life following retirement. In this chapter, we discuss the many ways in which older adults can benefit from learning new technologies, including enjoying more functional independence, social connection, and cognitive engagement. We also discuss the barriers that prevent older adults from learning new technologies, including physical ailment and disability, skepticism over the benefits, and stereotype threat. Finally, we introduce the concept of Langerian mindfulness and how learning to be mindful as opposed to mindless can help older adults overcome these barriers.

INTRODUCTION
The U.S. Bureau of the Census (2011) reported that between the years 2000 and 2010, the rate of growth for the nation’s 65-and-older sector surpassed the growth rate of the entire population. Similarly, in the European Union, the ratio of people above 65 years old to people between 15 and 64 years old is projected to increase from 25.4% to 53.5% between 2008 and 2060 (European Commission, 2009).

As a result, research has increasingly turned to improving well-being in later life, including investigations on how to preserve physical and cognitive functioning as well as psychological health (e.g., Cho, Martin, & Poon, 2014). This chapter will investigate some of the many ways technology can improve the lives of older adults and how a mindful approach can help this population overcome the barriers to technology usage.

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BACKGROUND

Benefits to Using Technology

We are now in the digital age, a period of human history characterized by unprecedented advancements in information technology. The term “digital native” has been coined to describe those growing up immersed in the digital world, while the term “digital immigrants” has been used to describe the rest of the population (Prensky, 2001). The introduction of these terms into everyday language reflects how technology usage has become part of our generational identities. Yet, the benefits to using this technology are not limited to digital natives, but instead can be enjoyed by everyone, including older adults (Peine, Rollwagen, & Neven, 2014). Enhancing quality of life of older adults is an important goal for positive psychologists. Technology can offer multiple avenues for the improvement of their well-being, providing that the barriers to usage are removed (Ranzijn, 2002).

In the next section, we will focus on three primary benefits in the older population, including functional independence, social connection, and cognitive engagement.

Functional Independence

“Aging in place” (i.e. staying in one’s own home into late adulthood) is a common goal for many people (e.g. American Association for Retired Persons, 2000; Shafer, 2000). However, this goal proves more difficult for those with a health condition or disability—both of which present problems for older adults. According to a 2006 report from the Centers for Disease Control and Prevention (CDC), 34% of American adults aged 65 or older have at least one health condition or disability. Thirty-seven percent of individuals aged 75 years or older reported three or more such conditions. These conditions may impede older adults from independently performing Activities of Daily Living (ADL), including bathing, using the toilet, and eating. Additionally, older adults living alone in their own homes are required to complete Instrumental Activities of Daily Living (IADL) including managing medication schedules and paying bills.

The benefits of “aging in place” are numerous. Financially, living at home is more cost-effective than full-time residential care (reviewed in Tang & Venables, 2000). In addition to its financial benefits, “aging in place” allows one to maintain independence and personal responsibility for daily activities. These factors have been experimentally determined to lead to health and longevity (Rodin & Langer, 1977).

Computer technology plays a large role in helping many older adults maintain functional independence in their own homes (Mynatt & Rogers, 2001). Specifically, technology supports older adults in completing everyday tasks and, when it becomes necessary, in aiding family members and caregivers in the home setting (Mynatt & Rogers, 2001). Technology can be used to provide memory aids (e.g. to provide reminders for following a medication schedule; Charness, Best, & Souders, 2012) and it can also be used to alert family members of falls (Rantz et al., 2013) or to allow children to check in on their elderly parents (Mynatt & Rogers, 2001).

One application of technology in the domain of functional independence is helping older adults avoid the two types of memory errors related to taking medications—scheduling errors and episodic errors (Hopkins, 2005). Scheduling errors occur when patients take a pill at the wrong time (e.g., 11 am instead of 9 am). Episodic errors occur when a patient forgets whether or not they have taken their medications, which can lead to accidental overdose. Costs due to medicine mismanagement in Americans 65 and older were estimated to reach around $887 million in 2005 (Field, Gilman, Subramanian, Fuller,