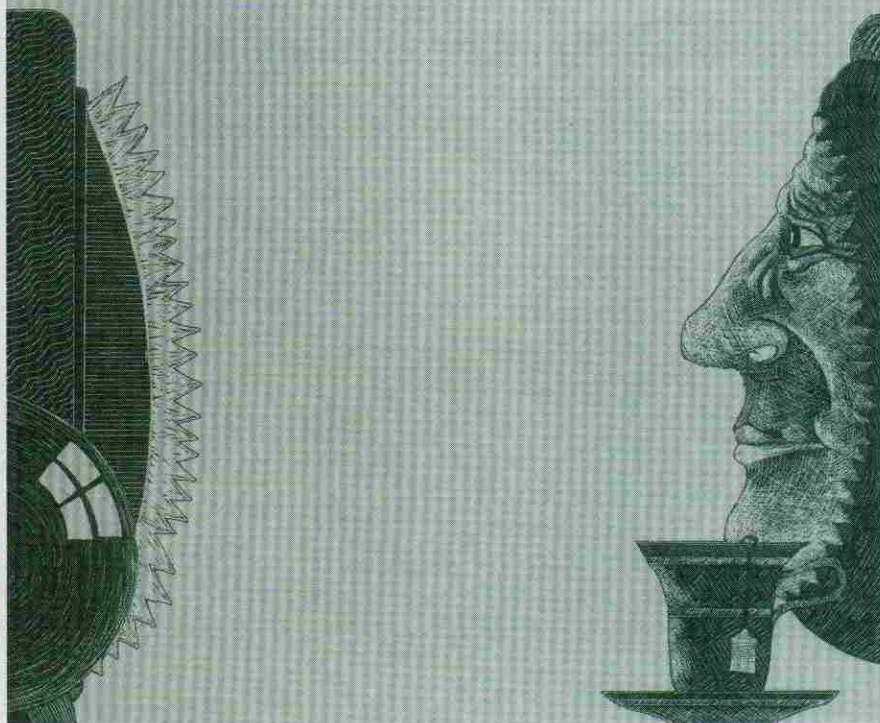


SeniorNet, v. 2.0

By Bob Lee, Geoffrey Godbey, Ph.D.,
and Steve Sawyer, Ph.D.



*The changing roles of
computers and the
Internet in the leisure
lives of older adults.*

Information and communication technologies (ICT) are becoming increasingly pervasive in our work and leisure lives. For example, the U.S. Department of Commerce estimates that, last year, nearly 143 million Americans accessed the Internet on a daily basis; that number has surely grown in the interim. An increasing number of those logging on are older adults—about 30 percent of Americans age 55 and over own computers (Adler, 1996). Given the increasingly integral role of the Internet and e-mail in daily life, Baby Boomers, who are now between the ages of 39 and 57, will likely drive up the percentage of older adults who use computers.

The Baby Boomer cohort has been characterized as a well-educated and wealthy generation. Previous research has revealed that older adults with

higher levels of education and income often have favorable attitudes toward computers (Kerschner & Hart, 1984). Considering the Baby Boomers, most of whom have been exposed to computers and the Internet, it seems highly likely that both the number of these users and the amount of time they'll spend online will lead to marked changes in leisure patterns. This phenomenon is likely to pose new challenges for professionals in park and recreation fields in at least two ways. First, increased computer use is likely to lead to a need to redirect services to meet senior Internet users' needs. Second, the increased online uses of computers by the new generation of older adults is likely to require that recreation and park professionals provide new services. The purpose of this research update is to shed light on current research related to the use of computers and the Internet by older adults. We do this to help call attention to the need, and provide an initial means to frame future programming and research related to the leisure use of computers and the Internet among older adults.

Technology and the Psychological Well-Being of Older Adults

Older adults often experience negative age-related changes, such as gradual physical decline, emotional isolation and social disconnection. However, information technology allows these individuals to relocate themselves in cyber communities, thereby helping to maintain connectivity to contemporary society. This type of connectivity is important for older adults to maintain their feeling of psychological well being. A study conducted by White and colleagues (1999) at Duke University concluded that teaching older adults to use computers to access the Internet and e-mail was feasible. The researchers found a trend toward

decreased loneliness among the older participants who used the Internet and e-mail, leading the researchers to believe that there's potential to produce a beneficial impact on psychosocial well-being through communication technology intervention.

Computer and Internet use may help to compensate for mental or physical deficits of older adults, expanding, for instance, their social support network. As Cooper (1999) stated while discussing the effect of cultural changes on human societies, the cultural aspects of our identities becomes thicker and changes ever faster: "This is particularly true of open societies in the past few centuries, where the process of creation and dissemination of new ideas, especially ones in which new technologies have figured in direct or subtle ways, have been occurring at an unprecedented pace. Think of how the myriad direct ways in which the technological spin-offs of science have ever changed our societies over the past three centuries, or the subtle ways in which recent technologies are making the physically weak less prey to, or dependent upon, the physically strong, change forever, in ways unparalleled in the rest of the animal kingdom... Perhaps no cultural change has affected us so quickly and profoundly as the current transition to an

information age" (p. 470).

Computers and the Internet can offset physical losses, age-related declines or mental disability, and alter individuals' existing disadvantage and weakness. Dattilo, Williams, Guerin and Cory (2000), and Dattilo, Williams and Cory (2001) found that computers and the Internet might facilitate cognitive achievements and development of social skills for youth with disabilities. To the aged adult, computers and the Internet have been seen as powerful tools in expanding older users' social support network. Social support has been found to be an important aspect in the lives of older adults, and will help to elevate psychological well-being and buffer the effect of stress (Crandall 1979; Rook, 1987).

Computers and the Internet expand supportive networks for older adults through online support groups, which provide 24-hour accessible supportive services to allow older individuals to disclose information safely and anonymously and share their lives with others. Sharing one's life with others will help them to feel more connected with society and help to validate their experiences as human beings (Wright, 2000). In addition, computers and Internet-mediated social support may serve to reduce life stress and lower levels of morbidity and mortality

(Antonucci, 1990). Wright (2000) further noted that network involvement is a better predictor of perceived life stress than age and other variables. Greater involvement with the online community was predictive of lower perceived life stress.

Computers and the Internet may help to satisfy the needs for older adults' leisure engagement. In advanced age, many older adults gradually and increasingly experience decreased mobility due to physical illness, diseases or retirement-induced disconnection to the pre-existing social network. Older adults' leisure involvement is threatened by these inevitable changes. Computers and the Internet, however, may provide new windows for older people to maintain their leisure engagement. Adler (1996) indicated that more than 60 percent of older adults who owned computers loved to play online games. A number of older adults freely interact with others by playing online games, sharing the same leisure interests as well as developing new companionship through online activities. Leisure companionship has been recognized as one of the fundamental human needs that drive people to participate in shared activities through the life-cycle, from children's play to older adults' leisure involvement (Iso-Ahola, 1980). Computers and the Internet can facilitate this kind of leisure mechanism in the live older population. Grodsky and Gilbert (1998) reported that older people who were learning to use computers were primarily using them for "word processing, record keeping, paying bills and having fun." Older adults may also use computers and the Internet to keep emotional and social contact with friends, relatives and family members. In addition, they often visit chat rooms to meet new people, or explore their leisure interests/hobbies by gathering information on selected themes.

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Computers and the Internet use may help older adults to maintain, establish or re-establish areas of personal competence. Gerontological studies have revealed that older adults, after their retirement, often believe what they are told by "powerful others," such as their doctors, lawyers or even their kids. They believe that their kids are more competent in effecting outcomes than themselves (Schaie, 1996). Today, computers and the Internet allow older adults to affect more outcomes themselves, such as by enrolling themselves in distance-learning courses online for life-long education, surfing the Internet to collect information on news and current events, gaining or refreshing knowledge and understanding of health issues and Social Security policies. These online engagements help to maintain or re-establish older adults' sense of empowerment and competence. Competence is a variable associated with feeling knowledgeable and skilled in activities that people participate in. When people have skills and knowledge in the activities they engage in, it often generates a sense of control and competence. As a consequence, older adults, through learning new technologies, will increase the ability to feel mentally alert, challenged, and useful (Furlong, 1989).

Challenges Faced by Older Computer Users

Information communication technologies include computer hardware, software, telecommunications networks, devices and other relevant technologies that enable transmission, processing, storage and retrieval of information (Sawyer, 2000). This definition combines both computing and communicating systems, explicitly recognizing the convergence of use that computers, cell phones and the Internet embody. When encountering new technologies, older adults often experience higher levels of anxiety (Laguna &



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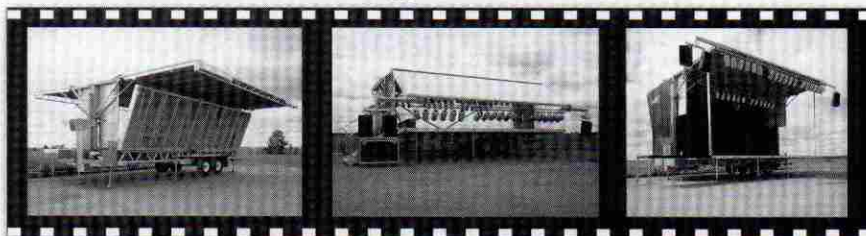
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Babcock, 1997) and hold less favorable attitudes than do younger people (Czaja & Sharit, 1998). Schaie (1996) indicated that older adults were found to have a higher level of fat-free acid than young people; the level of fat-free

acid in the blood is an indicator of human body metabolic response to stress. Thus, finding low stress methods of introducing new ICT to older adults is critical.

Learning new technologies is chal-

lenging for most people, and seemingly more so for the older population. Older adults must overcome three types of constraints modeled by Crawford, Jackson, Godbey (1991) in the process of adopting computers-based technologies. They are intrapersonal, interpersonal and structural constraints. Godbey and Lee's study (2002) found that older people have fears of experiencing failure in learning to use computers and the Internet. They would often think they were "too old to learn" or "computers and the Internet are too difficult to learn." Clearly, older adults experience intrapersonal constraints toward computers and the Internet.

While experiencing decreasing social network and physical mobility in the process of aging, many older adults also suffer from interpersonal constraints and feel they are unable to learn how to use computers and the Internet. They may never have been exposed to computers and the Internet, and have no idea that new technology will help to expand their social network. They sometimes believe that they won't have anybody to send e-mails to or have anybody to ask how to handle technical questions (Godbey & Lee 2002).

Accessing ICTs

Accessibility-centered structural constraints are other major factors restricting numerous older adults in use of computers and the Internet. Issues of the digital divide have frequently been raised by today's policy makers in an attempt to bridge the existing technology gap. An inclusive flow of information between "haves" or "have-nots" becomes a crucial issue to integrate older adults into the Internet community, since many older individuals still live below poverty line and are unable to own a computer or buy time on the Internet (Deollos & Morris, 1999).

Older adults also face many unique age-related constraints, including

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impaired visual capacity, deficits of short-term memory or a growing number of chronological diseases such as arthritis. These age-related functional declines pose more obstacles in the process of mastering computer-based technologies for them. Smith et al. (1999) identified that input devices such as a mouse could cause difficulty for older adults to perform dragging, clicking or fine-positioning the objects. Older adults can be confused and frustrated by the unfriendliness of interface designs, such as smaller font size, using pull-up or drop-down menus, or having a poor color contrast background. Therefore, to discover ways to remove or minimize limitations confronted by older adults becomes a crucial point in negotiating these constraints.

In summary, the increasing ubiquity of computers and the Internet are likely to have profound implications for the lives of older adults regarding both their health and their use of leisure. Computer literacy may not only offset age-related declines, but also play an important role in prolonging independent living and improving the quality of life and leisure.

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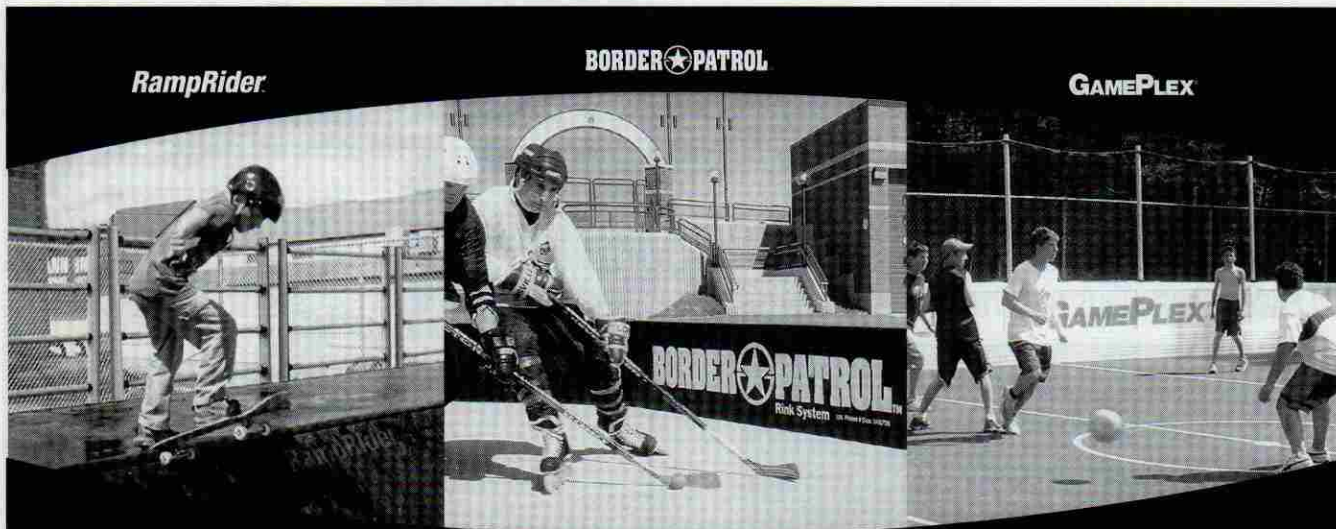
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