

THE PROACTIVE AGED: NEW PLAYERS IN THE WEB WORLD

Eva
Kahana,
PhD^{1,2}

Boaz
Kahana,
PhD³

Loren
Lovegreen,
PhD²

Cory
Cronin, MHA²

Holger
Plaff, PhD⁴

ABSTRACT

This paper offers a comprehensive framework for understanding factors that explain rapidly increasing use of the World Wide Web by very old persons. Five "engines" are discussed as promoting technology use in general and Web use in particular in late life. These include: environmental presses, convenience and compensatory functions, intergenerational bridging functions, leisure and entertainment functions and facilitation of health maintenance. We provide illustrative data about technology and Web use from our long-term longitudinal studies of successful aging among community dwelling elders in four distinct urban communities in the US. Our findings point to elders as increasingly relying on Web-based communication and information retrieval as well as the important social value of Web use for this population.

General Terms

Theory

Keywords

Older Adults, Leisure Activities, Health Information Seeking, Social Participation, World-Wide-Web

1. INTRODUCTION

The widespread penetration of the Internet into social transactions in diverse societies has been accepted as the new reality of social discourse and exchanges. While the influence of the Web on younger persons is acknowledged, older adults have been generally viewed as disadvantaged members of the digital divide or at most as latecomers to the information revolution [1]. The rise of the Network Society has been acknowledged in the aftermath of the information technology revolution [2]. However, technology use among the aged has been generally considered in a more limited context. There is a growing acknowledgement that technology is a valuable adjunct to monitoring and caring for frail elderly, especially those who are homebound and physically

limited [3]. Using this lens, however, the elderly are viewed as relatively passive recipients of health care innovations that can lead to greater safety of older adults on the one hand, and cost savings for the health care system on the other. It is important to recognize that the use of Internet technology can also offer useful sources of empowerment for older adults [4].

Our research on successful and proactive aging in four distinct communities in the US documents the salience of Web-based communication and social participation in the lives of the very old [5]. Data from our long-term longitudinal study reveals that technology use and particularly use of the Web is becoming a central part of the lives not only of newer cohorts of elders, but is increasingly relied on by the very old. Over the course of the past twenty years we have been engaged in a panel study of community dwelling older persons [6]. Data on technology use have been included in our annual personal interviews with elders during several study waves. Broad findings reported in this paper reflect our cumulative understanding derived during the course of our study.

1.1 RESULTS

Our findings generally confirm observations of recent research [7] regarding growing and expanding reliance on Web-based communication by persons over the age of 75. Our sample comprised 514 study participants, with a mean age of 77.6 years (SD=8). In our study, the majority of respondents (59.4%) reported having and using a cell phone. Computer use was reported by 45.5%, reflecting a substantial increase from data collected in prior study waves. These findings are consistent with other research pointing to rapid acceleration in computer use among older adults [8]. It is also interesting to note that those elders using computers tend to be daily (68.6%) or at least weekly users (18.6%). Very few elders reported infrequent use, given access and skill to use computers (12.9%).

Among those reporting use of computers (n=226), the majority used both email for correspondence (89.6%) and the Web more generally (88.8%). Email use linked elders primarily to their informal network of friends (87.0%) and family (87.9%). Only a small proportion of users communicated with physicians (8.8%) or other health care providers (such as nurses) by email (6.4%). Even fewer reported having ever used online support groups (1.4%). This limited use of the Web for health communication is likely to be a function of lack of elder initiative and advocacy on the one hand and lack of access to providers via email on the other.

Our findings offer support for the expectation that use of technology in general and use of the Web, in particular, will continue to increase among the oldest age [9]. Such increased utilization of Web-based resources opens up new opportunities for social networking and the receipt of social support as older adults face health related challenges and social losses.

¹ Corresponding Author: Eva Kahana, Phd. Email: exk@case.edu

² Case Western Reserve University, U.S.A

³ Cleveland State University, U.S.A.

⁴ University of Cologne, Germany

1.2 DISCUSSION

There are diverse engines for increased use of the Web in late life, including:

1) *Environmental Presses*. There are growing demands for technological competence in transactions of daily living [1]. These range from self scanning of groceries at checkout in the supermarket to borrowing and renewing books in the public library. References to the Web are ubiquitous in mass communication, inviting TV viewers to follow current events and political debates on social networks. Personal communication has been largely transformed, demanding facility with email and, increasingly, with text messaging.

2) *Convenience and Compensatory Functions*. There is increasing recognition by elders that the Web can serve as a support in compensating for functional limitations and for dealing with health challenges faced in late life [10]. It can also compensate for lack of resources, such as access to transportation. Accordingly older adults are among consumers most likely to search for health information on the Web [11]. Seniors also increasingly take advantage of Web-based support groups for specific chronic illnesses, thereby avoiding the need to find transportation and deal with the stigma of self-disclosure by attending face-to-face sessions [12]. Our findings also indicate that older adults find it convenient to order merchandise online without leaving the comfort of home, particularly during inclement weather.

3) *Intergenerational Bridging Functions*. In a society where age segmentation is the norm, older adults can forge intergenerational ties by assuming new roles as “Cyber-seniors” [7]. Elders in our study rely on email to communicate with distant and busy grandchildren and even adult children who do not always welcome phone calls from elders. The ebook reader and other increasingly popular electronic books allow elders to share readings with college-student grandchildren, while benefiting from large print and reduced prices.

4) *Leisure and Entertainment Functions*. Older adults are typically retired and seek meaningful activities to “add life to their years”. Our data supports prior research on Web-based leisure activities and older adults [9]. For example, we found that Web-based games are favorite pastimes for many elderly persons. Some favor card games, while others engage in solitary gambling, while attending virtual casinos. Others browse the Web seeking new learning opportunities. Many elders visit travel websites preparing for desired or actual trips that can expand their life space.

5) *Facilitating Health Maintenance*. Web-based and other technological communication and monitoring systems are taking a strong foothold in serving health maintenance and communication functions for frail elders [13]. Our data reveal that elders welcome empowerment and maintenance of independence when engaging in self-initiated and voluntary health maintenance functions. At the same time they are suspicious and even fearful of surveillance functions initiated or carried out by caregivers.

As the number of older people continues to grow worldwide, the demand for and the benefits of the Web in daily life, will continue to expand. The old will become increasingly experienced and involved players in the use of the Web.

1.3 ACKNOWLEDGMENTS

This research made possible by National Cancer Institute grant #CA98966 and National Institute for Nursing Research grant # NR10271.

1.4 References and Citations

- [1] Cresci, M. K., Yarandi, H., & Morrell, R. W. (2010). The digital divide and urban older adults. *CIN: Computers, Informatics and Nursing*, 28(2), 88-94.
- [2] Castells, M., (2000). *The Rise of the Network Society*, 2nd Edition. Malden, MA: Blackwell Publishing.
- [3] Volti, R. (2006). *Society and Technological Change* 5th Edition. New York: Worth.
- [4] Thursz, D., Nusberg, C., & Prather, J. (1995). *Empowering Older People: An International Approach*. Westport, CT: Auburn House.
- [5] Kahana, E., Seckin, G., Lovegreen, L., Kahana, B., Cheruvu, V., Brown, J., King, C., Kelley-Moore, J. (2007). *Enhancing signal strength in later life through technology*. In Tarasti, E., Forsell, P., & Littlefield, R. (Eds.) *Communication: Understanding/Misunderstanding*, Acta Semiotica Fennica XXXIV, Vol. 2 (pp 665-675). Helsinki-Imatra, Finland: International Semiotics Institute.
- [6] Kahana, E., & Kahana, B. (2003). Patient proactivity enhancing doctor-patient-family communication in cancer prevention and care among the aged. *Journal of Patient Education and Counseling*, 2075, 1-7.
- [7] Wagner, N., Hassanein, K., Head, M. (2010). Computer use by older adults: A multi-disciplinary review. *Computers in Human Behavior*, 26, 870-882.
- [8] Gatto, S. L., & Tak, S. (2008). Computer, internet and email use among old adults: Benefits and barriers. *Educational Gerontology*, 34(9), 800-811.
- [9] Jones, S., & Fox, S. (2009). *Generations Online in 2009. Pew Internet and American Life Project, Pew Research Center*. Retrieved February 23, 2011 <http://pewinternet.org/Reports/2009/Generations-Online-in-2009.aspx>
- [10] Verbrugge, L.M., & Jette, A.M. (1994).The disablement process. *Social Science and Medicine*, 38(1), 1-14.
- [11] Alpay, L. L., Toussaint, P. J., Ezendam, N. P. M., Rovekamp, A. J. M., Graafmans, W. C., & Westendorp, R. G. J. (2004). Easing internet access of health information for elderly users. *Health Informatics Journal*, 10(3), 185-194.
- [12] Czaja, S. J., Charness, N., Fisk, A. D., Hertzog, C., Nair, S., Rogers, W., & Sharit, J. (2006). Factors predicting the use of technology Findings from the Center for Research and Education on Aging and Technology Enhancement. *Psychology and Aging*, 21(2), 333-352.
- [13] Wild, K., Boise, L., Lundell, J., & Foucek, A. (2008). Unobtrusive in-home monitoring of cognitive and physical health: reactions and perceptions of older adults. *Journal of Applied Gerontology*, 27(2), 181-200.

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

Conference'10, Month 1–2, 2010, City, State, Country.

Copyright 2010 ACM 1-58113-000-0/00/0010...\$10.00.