Older adults and information technology: The current state of research and future

directions

Poster Submission

In the US alone, it has been predicted that the senior population will grow to

represent over 21% of the total population within the next fifty years, a 147% increase in

the number of seniors from 2000 (U.S. Census Bureau, 2005). With the aging of the

population and the seriousness of issues that face older adults, it will be important to

discover ways in which information technology can be used to benefit older adults' lives

and society as a whole. Research concerning older adults and information technology is

dispersed across several disciplines and a variety of perspectives, with the majority of

information systems and information science literature focusing on only a few of the

issues that older adults and society in general will face in the upcoming decades.

This poster will describe the authors' work in synthesizing research regarding

older adults and information technology across several different disciplines into a

congruent conceptual framework. The purpose of this work is to help researchers to

understand the breadth and depth of the issues that have been researched in regards to this

area. In addition, the authors' propose a research agenda for the fields contained within

iSchools regarding older adults and information technology.

Based upon a review of the literature, we have conceptualized the issues that have

been explored into four major domains of current research: social concerns, financial

concerns, physical and cognitive concerns, and organizational concerns facing older users

and the use of information technology. Examples of social concerns regarding usage of

technology include issues such as the digital divide and the use of computers to lessen social isolation. Financial concerns have included studies on technology adoption and marketing to older individuals. Studies regarding the growing percentage of older adults in the population and the impacts that this will have upon organizational knowledge retention and technology retraining represent issues in the organizational concerns domain. Physical and cognitive concerns have examined issues such as disability and assistive technology. The authors suggest that the social and physical/ cognitive issues remain the most addressed domains in the study of older adults and technology.

As can be seen in the diagram below, social and financial concerns have been addressed from a collective perspective, which has typically portrayed these issues as systematically impacting the entire older adult population and also having broad repercussions that affect society as a whole. For instance, the digital divide, a social concern, is often portrayed as systematically affecting all older adults and society. Organizational and physical/ cognitive concerns have been addressed from an individualistic standpoint and have typically been portrayed as impacting our society from the individual level. For instance, issues such as dependency of older adults have been explored through the individual level, where solutions have been proposed that facilitate the dependency needs of single individuals. This relationship between concerns that have been addressed from an individual or collective standpoint is represented by the vertical axis of the figure.

Beyond conceptualizing these issues along a collective and individualistic continuum, the various issues can also be conceptualized along a continuum of economic and humanistic issues. The horizontal axis represents this relationship. As can be seen,
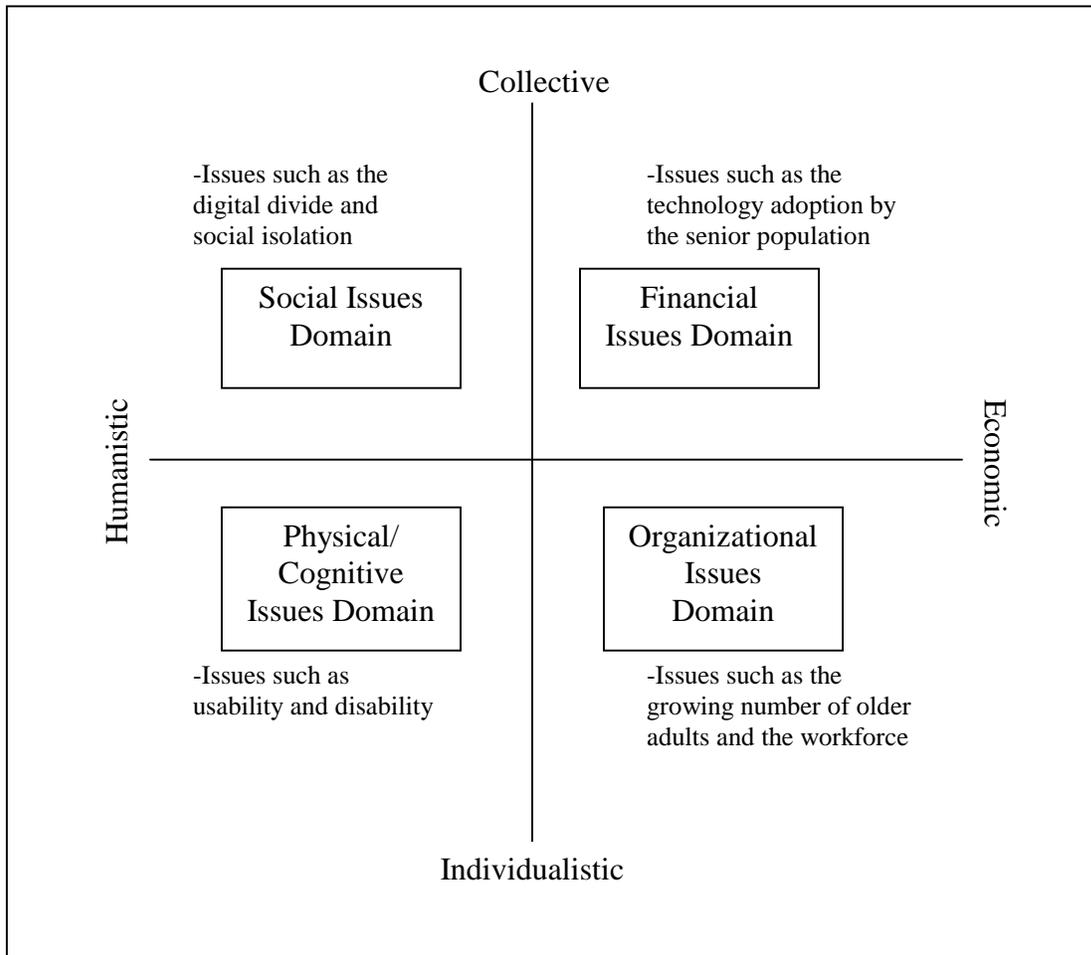
social and physical/ cognitive concerns have typically been addressed from a humanistic standpoint, where it is suggested that these issues represent societal impacts due to decreased older adult participation in our society. For instance, social isolation of older adults is often viewed as negatively impacting not only the seniors who suffer such isolation, but also society as these adults' contributions are removed through isolation. Issues that have been considered from a more humanistic standpoint have often considered the problems that older adult's face through an activist lens, which sees technology as a potential tool for empowerment of older individuals. Issues that have traditionally been explored from an economic perspective involve concern over potential loss of revenue for organizations, revenue retention as the population ages, or developing sources of revenue from the older population. For instance, issues such as technological adoption by seniors have typically examined older adults as a marketable population. Issues that have been considered from a more economic standpoint have often considered the problems that older adult's face as being economically created or consider the issues surrounding the aging of our society as an economic problem.

Very few issues regarding older adults and technology have been addressed by researchers from the fields traditionally contained within iSchools. Information systems research in this area has mainly focused on exploring issues in the cognitive and physical domain, with most research concentrating on usability issues surrounding information technology use by the elderly. Information science research in this area has focused on several of the social concerns, including the digital divide. The authors suggest several directions for potential iSchool contributions to this area of research, including a

diversification of the methods used to study each domain of issues and exploring the impact of emerging forms of technology on older individuals.

As our population continues to age, our entire society will be faced with the issues of equal access, disability, healthcare needs, engagement, and technological literary of older adults. Our organizations will be pressed to determine ways to manage retiree's knowledge and with ways to accommodate older workers who choose to work beyond our age of retirement (Hedge, Borman, & Lammlein, 2006). Additionally, as our society becomes more technologically centered, it will be important to explore ways in which we can improve and maintain the technological literacy and access of older adults so that they may remain active in our political and social systems. The authors suggest that the exploration of many of these issues would benefit from the iSchools' unique interdisciplinary lens.

Figure 1. Domains of issues addressed in the literature regarding older adults and information technology

Collective

-Issues such as the digital divide and social isolation

| Social Issues Domain |

-Issues such as the technology adoption by the senior population

| Financial Issues Domain |

Humanistic

Economic

| Physical/ Cognitive Issues Domain |

-Issues such as usability and disability

| Organizational Issues Domain |

-Issues such as the growing number of older adults and the workforce

Individualistic

References

Hedge, J. W., Borman, W. C., & Lammlein, S. E. (2006). *The aging workforce: Realities, myths, and implications for organizations*. Washington, D.C.: American Psychological Association (APA).

U.S. Census Bureau. (2005). Facts for Features: Older Americans Month Celebrated in May.   Retrieved December 3, 2006, from http://www.census.gov/Press-Release/www/releases/archives/facts_for_features_special_editions/004210.html