Exploring Impacts on Older Adults’ Channel Selection When Faced with an Information Need

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ABSTRACT

1.1 Introduction: Information Needs and Older Adults

Our everyday lives have become more dependent upon digital information and services. This movement of information to digital formats, which often requires an individual to use advanced technology, is seen as particularly challenging for the older members of our society [20]. Several studies have suggested that the movement to digital information sources puts older adults (those age 65 and greater) at risk of missing the information or the services that they need [20], primarily because this population has the lowest rates of information and communication technology usage [11]. For instance, Medicare is a federally funded program thatprovides healthcare to older adults in the U.S. However, information about Medicare is only provided by the U.S. government online. If an older adult needs information about Medicare benefits or enrollment, they need to either access official information online, or go to a secondary source [4, 16, 20]. Another salient example of this issue is embodied in the move to electronic voting in the U.S. In areas that have implemented electronic voting, empirical evidence has shown a statistically significant decrease in the amount of older adult voters [12].

Understanding how and why older adults choose a digital or a non-digital information channel when faced with an information need is becoming increasingly important because many developed nations are aging. In the U.S., there is a projected 147% increase in the number of individuals over age 65 from the year 2000 to the year 2050 [15]. With older adults representing a greater portion of the population, it will be important for aging societies to cater to the information needs of this diverse group.

In the literature studying older adults and technology adoption (as well as e-service usage) several factors have been proposed to affect older adult usage of digital information and services. These factors have included relevance/usefulness of the technology to the older adult [14], technological literacy [7, 8], and the perceived security of the digital or non-digital system [10]. Technological literacy, or the basic skills needed to operate a technology, has often been suggested as the largest barrier to older adult usage of advanced technology [7, 13]. However, many older adults have become “post-adopters” of information technologies: they once used these technologies but have stopped [8]. This suggests that other factors are influencing older adults beyond simply knowing how to use a computer. There is most likely a diverse set of factors that influence older adult’s likelihood to use a digital information source.

1.2 Contributions of this Study: Exploring Older Adult Channel Selection

This research makes a contribution to understanding why and how an older adult chooses an information channel when faced with a conscious information need. This work applies relevant theory from gerontology, information systems, information science, and communication studies in order to understand the multitude of factors that may influence an older adult’s selection of an information channel. By taking a life course perspective, this research attempts to understand how older adults’ diverse life experiences impact their likelihood to use a more digital form of an information system (such life impacts could include employment, exposure to technology, and retirement). The Unified Theory of Technology Acceptance [18] is also applied in this research, as several studies have demonstrated that an older adult’s perceptions of ease of use and usability have a substantial impact on their technology usage [6, 9, 17, 21]. This research also draws upon gratifications theory, which suggests that individuals become reliant and tend to prefer channels that fulfill their social and psychological needs, rather than choosing channels purely upon their information needs [1, 5].

These relevant theories have been incorporated into a model of channel selection, seen in Figure 1. This model proposes that an older adult goes through a somewhat linear process of information channel selection. This model proposes that an older adult faces an information need- the conscious recognized need for information to complete a task (or complete a step in a task) and/or to answer a question that the older adult has. In order to fulfill this information need, an individual must consult an information channel. Information channels refer to communication and information mediums through which older adults can access information, including mediums such as cell phones, the internet, written pamphlets, etc.

This figure presents a process in which the older adult recognizes their information need (1), chooses a channel (2), gathers information from this channel (3), and then evaluates that
information and the channel in general (4). These evaluations affect a person’s likelihood to choose that channel again for a similar information need. This study is particularly interested in the channel selection process, so this part of the model is expanded. The basic design of this model is based upon Wilson’s [19] information behavior model and does not assume that an individual is successful in obtaining the information to meet their information need. It may take an individual several attempts at this process in order to be successful, or an individual may choose to end the process at any time.

The model proposes that certain channels exist in reality (2a)- outside of any particular older adult’s perceptions. An older adult, however, is only aware of certain channels. For example a person may not be aware that information can be obtained from YouTube (2b). Channel awareness is mediated by generational, occupational, and social exposure to possible information channels. When faced with an information need, an older adult considers the potential relevant channels that information could be obtained from (2c) based upon their channel awareness. This analysis of potential channels by the older adult is mediated by the channel’s perceived usefulness for meeting their information need, older adult’s access to that channel, and the task dimensions (such as time constraints, as well as the depth and accuracy of the information needed) involved in meeting that information need. For instance, an older adult may feel that because the internet has relevant information and because the information is needed within a few hours, that the internet may be the best choice. However, the older adult may not have access to the internet, and therefore the older adult decides that the internet is not a relevant choice. An older adult then makes an information channel selection from the potential relevant channels (2). The selection is mediated by the gratifications that an older adult receives from a certain channel, the older adult’s perceptions of how easy to use a channel is, how useful that channel will be, and if they believe that the channel is trustworthy and secure.

1.3 Potential Study Design: Exploring Older Adults Information Needs

This study will use a mixed methods multi-phased approach in order to study the factors that influence older adults’ choice of media and information channels. The working model proposed above will be expanded and revised based upon the results of the study in order to effectively model the information channel selection of older adults. The study will involve three phases, with each phase building upon the next phase of the study.

During the first phase of the study, older adults will be interviewed in order to understand the types of information needs that are regularly experienced by older adults. From these interviews, a specific set of information needs will be selected (for example, information needs about health issues). The information needs identified will then be used throughout the next two phases of the study in order to generate the factors influencing the channel selection by older adults for these specific kinds of information needs.

Semi-structured interviews will be used in the second phase of the study in order to obtain a preliminary understanding of the factors affecting older adult’s choice of information channels. These factors will be added to an expanded model of channel selection for older adults. This expanded model will be tested during the third phase of the study.

The third phase of the study will involve a survey to confirm the magnitudes and relationships between these factors. This survey will be pilot tested first for face and content validity with focus groups of older adults, and then pilot tested with small samples in order to determine construct validity and to estimate the sample size for the final survey [3]. Results from the final survey will be analyzed using Multiple Linear Regression to understand the impact of the various factors and their relationships [2].

The researcher hopes to use this information to build a comprehensive model of how various factors impact an older adult’s choice of information channel, and in particular, the factors that affect if an older adult is likely to choose a digital versus a non-digital channel.

The poster presented at the conference will include preliminary results from the semi-structured interviews, including a revised model of the channel selection process detailed in Figure 1.

References


**Categories and Subject Descriptors**

H. Information Systems; H.1 MODELS AND PRINCIPLES; H.1.2 User/Machine Systems; *Human factors*

**General Terms**

Human Factors

**Keywords**

older adults, elderly, seniors, information seeking, media, digital information