Seniors and Technology: Staying Connected

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ABSTRACT

The life of a senior citizen in an assisted living community can be enhanced by using a computer. After entering an assisted living community, senior citizens often feel isolated from families and friends. All senior citizens can expand their knowledge and skills when faced with life-centered learning objectives. This study focuses on a population of senior citizens and their self-directed learning to communicate through surfing the net, email, and data entry.

The authors believe the use of email, internet searches, and data entries have positive effects in eliminating some of the adverse effects of social isolation felt by seniors. Using a qualitative study, sixteen senior citizens were interviewed at an assisted living community. Findings included the importance of having used a computer before retirement, the importance of self-directed learning, and the need for seniors to find ways to remain in touch outside their nursing homes in the digital age. 2____

Introduction

As the "Baby Boomer" generation reaches maturity, they now must cope with a fast moving technological society. Many of them may have never used a computer in their working life while others may not have had the same level of contact with technology as those who are currently part of the workforce (Sankari, 2005). As individuals age, they are less likely to travel to visit family and friends that would bring meaningful connections. Technology can assist with these scenarios, but there are often difficult learning curves for senior citizens.

Life-long learning is truly a concept that our senior citizens must adopt to succeed with even the simplest technological communication tools. The use of email can make connections with family and friends effortless, but it requires some baseline skills. Searching the internet for answers to health issues would be a wonderful tool for senior citizens.

This Qualitative study investigated how senior citizens have adapted to the use of technology. Compared to those who did not use email, e-mail-using seniors were younger and wealthier, less likely to report health-related limitations, and more likely to report being able to do things independently (Stark-Wroblewski, 2007). Our study noted an educational component to the adaption of technology. What are they trying to say?

Theoretical Framework

Senior citizens are adult learners. When they want to communicate more effectively they become self-directed in such life-centered quests. Adult education was an attempt to create new schema for learning. For most of the twentieth century experimental psychologists focused on laboratory animals and children while deriving their theories for learning (Knowles, 1978). Malcolm Knowles led the modern advance toward a better understanding of adult learners.

Many senior citizens, who live in an assisted-living community, use a computer to keep them in touch with the world. The elderly citizens in America have increased their experience with technology and computers, and through this their attitudes toward the technology has improved (Namazi & McCintic, 2003). The amount of knowledge that senior citizens have of computers has to do with the circumstances in which they must adapt to change in order to communicate outside of their living environment. This applies directly to Knowles' (1978) description of andragogy as a process model. According to Knowles (1978, p.109), "the process model is concerned with providing procedures and resources for helping learners acquire information and skills." This begins to differentiate between the andragogical process model used for adults and the pedagogical content model used for children.

Senior citizens have adapted to the use of technology in order to communicate more frequently with their families, research health information, and search the web. "People who happen to be the same age are not necessarily similar, however from a generational perspective the elderly do indeed have a great deal in common" (Sankari,

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2005, p. 589). "Seniors use computers to shop and stay connected with family and friends" (Styne, 2007, p. 1). "Increases in the aging population and use of computer-related technology have spawned research regarding older adults' use of the Internet" (Stark-Wroblewski, 2007, p. 293). Some researchers found that the use of the internet was more popular with the 56+ year-old populations than with teenagers (Cole, 2003).

Residents of assisted living communities use computers as a way of communication as well as broadening their knowledge and skills to fit their individual needs (Stark-Wroblewski, 2007; Hilt & Lipschultz, 2004). It is still true that more young than older people, and more affluent than low-income people, are online. The overall demographic above the age of 50 has risen 50% between 2000 and 2004 (Stark-Wroblewski, 2007), and census projections state that by the year 2050 over one in four Americans will be 60 or older (Chamie, 2003).

Given the nature of older adults' internet practices (email, chat rooms, and health information gathering) there seemed to be some indication of benefit to their overall mental health (White et. al, 2002). Learning in Retirement (LIR) programs are predicated on the principle that adult learners are capable of developing, designing, and delivering high-quality instructional programs (Redding, 1998). According to the skill transfer concept, people may use general technological skills to solve new problems (Slegers, 2007).

Those senior citizens who have a higher education were more receptive and adapted to the use of computers for many uses such as: email, surfing the internet, and data entry. Fox et al. (2001) also noted several demographic trends including the fact that seniors who used the internet were more likely to be highly educated and utilizing higher retirement incomes.

Purpose of the Study

The purpose of the study was to ascertain if senior citizens have adapted to the use of technology compared to those who did not. The research question for this study was "What are the primary characteristics of nursing home residents who use computers?" Redding, Eiseman, and Rugolo reported that "Learning in Retirement" (LIR) is predicated on the principle that adult learners are capable of self-directed learning (SDL). Though adult learning can be done in many different types of settings, "Learning Theory" is the process associated with adult learning. When describing the process by which adults learn it is necessary to address the conditions associated with the learning. These conditions are influenced by the unique characteristics of the adult learner (1998). As of 2008, the term baby boomer is generally applied to anyone between the ages of 44 and 63. Boomers comprised nearly 28% of the adult U.S. population in 2005. Baby Boomers are working later in life and are retiring later (Shartin, 2005). This group in society will benefit from the research. Baby Boomers are not the first group of senior citizens to experience the lack of knowledge in the rapidly changing technology world. All senior citizens can expand their knowledge and skills when faced with life-centered learning objectives. This study focuses on a population of senior

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citizens and how they utilized self-directed learning to communicate with others outside of their living community through surfing the net, email, and data entry.

Methodology

Senior citizens, who were residents of a continuing care retirement community, were selected for this study. This qualitative study of 16 assisted living residents was conducted via a series of interviews. Purposive sample interviews were conducted in their living quarters, the garden area of the retirement center, and at the floor lounge in the main hallway. Validity was assured by triangulation, member checks, and peer examination. Reliability was determined using an audit trail – Table 1.The participants ranged in age from 75 to 102 years of age.

While many of the participants had prior knowledge of computer use from the workforce before moving into the assisted living quarters, several found it necessary to acquire computer skills after their move to this new community.

The assisted living community houses approximately 230 residents. The residents are socially active inside and outside their community. In order to attract new residents to the area, the assisted living director saw a need to have internet access for all apartments in the facility. This technology played a role in attracting families who were looking at assisted living communities that had computer access as a source of communication. A resident of eight years offered to assist us. The investigators asked her to look at the resident list and tell us who owned a computer and who would be willing to be interviewed.

Research was conducted in October of 2007 over a period of twenty hours in a nursing home in Houston, Texas. The questions used during these interviews are listed in the Appendix. In addition to the structured questions, semi-structured questioning was also used for further clarification of a response when it was needed.

To establish a clear understanding of how senior citizens have adapted to the use of technology, it was important to conduct the interviews in person. Each interview was written and the information was read back to the respondent after the interview. Every resident asked to participate agreed to the interview. They felt it was important to have an active part in the research gathered in their community.

Findings

The interview answers were transcribed for grammar for the readers' understanding. The study revealed that Learning in Retirement (LIR) is easier when senior citizens have control of their own learning. Senior citizens learn knowledge and skills most effectively when it is a real life experience. Many of them had used computers in their work prior to joining the retirement community. Other seniors were self-directed in their learning and felt they were learning something of value. Their primary reason for learning to use a computer was for communication through surfing the net, email, and data entry.

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Major findings included fifteen of the participants had earned at least a bachelor's degree. Fourteen of them had owned a computer at home; twelve of whom had owned a PC. The most frequent use of the computer by the participants of this study, with eleven, was email. Ten of the participants had used a computer in the workplace. At the time of the study, ten participants indicated that they used their computer for data entry and ten participants indicated both. Half of the participants were community service volunteers. Seven of the sixteen participants bought their first computer, while six received their first computer as a gift. Five of the participants also held a Master's degree.

Table 1

Summary of Major Findings from Interviews

Primary Characteristics	Frequency
Bachelor's Degree	15
Owned a computer at home	14
Owned a PC (not Apple)	12
Email as primary use of computer	11
Used a computer in the workplace	10
Data entry as frequent use of computer	10
Surfing the Internet as a frequent use of the computer	10
Community service volunteer	8
Bought their first computer	7
Received their first computer as a gift	6
16 Participants	

Senior citizens can adapt to the changes in society through the use of technology. The data collected showed the majority of the residents had at least one college degree, often in either education or engineering. They had used a computer in their work and at the time of the study owned a home computer. The time spent on the computer surfing the net, email, and data entry was approximately one hour a day. While in the workforce, computers were used mostly for data entry. The following section discusses selected responses from some of the participants.

Selected Responses

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Participant A had her keyboard prominently displayed on a TV stand in front of the television set. She used her Web TV about an hour a day. Her television serves as the screen to read her messages. She surfed the net for political, religious and comedy programs. She said her email came through MSN and the butterfly. She is careful to watch for spam mail. The box connected to her TV warns her with a green dot that the sender is not on her list. Her children gave the Web TV to her for Christmas. It's the cheapest way to have email and the easiest for her.

Participant B was asked if he had used computers in his job. He said two years before he retired, he was recruited as a professor at Rice University. He has owned a computer for ten years. His son decided that he and his wife needed a home computer. They learned to send emails and papers to others. The search engine they use the most is AOL, Comcast, and Map Quest. Participant B has Parkinson's disease and researches medications. He said "I can get research about corporations which is helpful". He has trouble typing due to his illness. He and his wife spend about two hours a day on the computer. Email keeps them in touch with old friends.

Participant F spoke of using computers in his work. He said "I worked for Eastman Kodak Company in New York City for forty years. I used them as they came into being. With radioactive emanation or energy level, it was the kick sorter. A Univac computer took the particles and sorted them for information. At Kodak, I used an IBM. It was a card shuffling system to record data". The University of Illinois had a computer called the "Iliac". He hated to do math so he was assigned to this computer to add, subtract, multiply, and divide. He has owned a computer for about fifteen years. He and his wife both owned Apple computers. It is a G4 silver laptop. He used his Apple about two hours a day and enjoyed the Turbo Tax program. He said "now it's a matter of time today – working on data since his wife died. I place and store dates. It is a powerful way to store data that is sometimes found in articles.

In 2001, *Participant J* moved to the retirement center. Her daughter gave her first computer to her. She used it for email and keeping her mailing list. Her son bought her the second one and installed it. Her son and two of her friends taught her how to use it. It is a Compaq computer. Her search engine is SBC Global. She said, "I don't do much searching on the computer. I don't check it everyday. My son set up my stocks. The Wall Street Journal is in my email". She has a friend who sends her email. She doesn't want him to send funny emails. She may lose contact with him so she decided not to tell him. I asked her how the computer has changed her life. She said "it keeps me in touch

with my children and grandchildren. Her granddaughter went to South Africa and sent her pictures. This relieved stress knowing that she was fine".

The participants had an average age of 85 years. They all had at least one degree. The majority of the participants had used a computer previously while at work, and the majority now had a home computer. The most frequently mentioned tools that the participants utilized were email, surfing the internet (frequently for medical information or stock market reports), and data entry.

Conclusions

Based on the study's objectives, the following conclusions were drawn and implications made. The results presented here address the question of "What are the characteristics of nursing home residents who use computers?" Senior citizens are "Learning in Retirement" (LIR) because they are motivated and self-directed. They learn to cope effectively with real life situations. This includes communication outside of their assisted living communities by being willing to learn what is perceived to help them perform tasks.

The residents represented the wide range in ages of senior citizens interviewed. In the United States, the normal age of retirement is 65 years old. The youngest resident interviewed in this study was 75 years old. The oldest resident was 102 years old. Even at this age this resident was a self directed learner. By keeping the mind active, the residents continued to learn in order to communicate with family and friends, and learn for a better quality of life.

This study determined, and the literature supports, that college educated senior citizens adapt to learning technology much easier. A lower level of education will continue to frustrate those who had not used computers prior to their joining a retirement community. With self-directed learning, many senior citizens have remained independent.

More research is needed to explore how seniors, who are not digitally literate, can adapt to the use of technology. Research in areas such as self-directed learning that is targeted at senior citizens and/or those approaching this age group could be significant in determining methodology used to teach them. The literature is certainly not complete in questions about senior citizens and technology. The more specific research studies can be refined to be helpful in narrowing the gaps between seniors who are comfortable with computers and those who are not. The senior citizens of the future will not only have to adapt to, but also continue to keep up with the changes made in the technology field.

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Appendix

Research questions used in the structured portion of the interview.

- 1. What is your age?
- 2. Are you a US citizen?
- 3. What is your highest level of education achieved?
- 4. What was your occupation?
- 5. Did you use computers at home?
- 6. Did you use computers at work?
- 7. When did you acquire your first computer?
- 8. Presently, how many hours per day are you on-line?
- 9. What type of internet service do you currently use (dial-up, high speed, satellite)
- 10. Do you own an Apple or a PC?
- 11. What do you primarily use your computer for at this time?