

ANTECEDENTS TO INTERNET LEARNING: ILLUMINATING THE CHARACTERISTICS OF OLDER ONLINE LEARNERS

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Very little is known about older people who engage in systematic on-line learning. A number of important questions about the older learner and the Internet need to be answered to ensure that programs are developed that are best suited to the special needs and interests of the growing population of older on-line learners. This paper reports on the methodology of a modified grounded theory approach involving email interviews with a group of ten older people from three countries. The study attempts to discover some of the underlying issues related to older people and on-line learning. Participants were asked to discuss a number of open questions/statements that were presented to them approximately every two weeks. Each participant was asked to respond in a "stream of consciousness" fashion in which they talked about anything related that came to mind. Once each of the participants had responded they were sent the composite anonymous responses and asked whether they would like to add anything to their original statement. Content analysis was used to define and compare the relative frequency of four major ways of talking about the Internet, based on participant responses to the six questions.

Introduction

The MacArthur Foundation Study of Successful Aging is the most extensive and comprehensive multidisciplinary study on ageing in America (Rowe & Kahn, 1998). One aspect of the study entailed following the lives of more than 1000 high functioning older people for eight years to determine the factors that might predict successful physical and mental ageing. Many successful agers in the study reported that they sustain their mental ability as they age by actively working at keeping their minds sharp. The research suggests that "this is part of a cycle that promotes mental ability: the more you have, the more you do; the more you do, the more you preserve" (p. 130). Education was the strongest predictor of sustained mental function. Rowe and Kahn speculated on two possible effects that could explain this link. First education in early life may have direct beneficial effect on brain circuitry; or second, education may set a pattern (eg reading, chess, bridge, and crossword puzzles) and this lifelong habit serves to maintain cognitive function in old age. Furthermore, some actions to avert or minimise cognitive loss can be undertaken at any age. With training "elderly men and women who have experienced some cognitive decline can ... offset approximately two decades of memory loss" (p. 137).

During the past three decades a large number of adult education programs have been developed for the rapidly increasing population of retirees. These programs provide cognitively challenging activities generally within a socially stimulating environment. In so doing they provide a direct means by which participants can engage with key elements of successful ageing (Rowe and Kahn 1998). The University of the Third Age (U3A) is the largest and perhaps best known of these programs. These U3As are found in many countries (Swindell and Thompson 1995) and their activities are characterised by their almost complete reliance on volunteers.

However, many older people are physically unable to attend a U3A or similar organisation that promotes learning in later life. They may be isolated by distance, illness, being a caregiver, cost of transportation and so forth. Isolation from mainstream activities affects many older Australians. The Australian Bureau of Statistics (ABS) (1999) reports that the average adult spends about three hours alone each day. In contrast, a man aged over 65 living by himself, is likely to spend 12 hours a day on his own, which represents 83% of his waking life. A woman of similar age, living by herself, will spend about 78% of her waking life alone.

Adult education activities delivered over the Internet could enrich the lives of many isolated older people. However, the key question is - are older people interested in using the Internet? In absolute numbers, when compared with other age groups, older people are on the wrong side of the digital divide. For example, Australia is one of the leading nations in terms of Internet access but when compared with younger cohorts, older Australians have relatively low rates of Internet usage (Australian Bureau of Statistics 2001). A similar trend is found in other developed countries. Nevertheless this imbalance could change quite quickly because older adults are reported to currently comprise the fastest growing group on the Internet. The National Office for the Information Economy (2001) reported that the largest increases in the number of Australians accessing the Internet occurred in older age groups, in the period November 1998 to November 2000. NOIE found a 188% increase in the 55 and over age group, and a 77% increase in the 40-54 age group. Although these seem to be spectacular numbers they also noted that significant progress is still to be made in the 55 and older age group before access levels reach those of other age groups. Another factor that will cause the absolute numbers of older Internet users to continue to climb rapidly is the growing impact that new technology has on everyday life. Most paid workers today are both comfortable with communications technology and knowledgeable of the empowering characteristics of the Internet. As successive cohorts retire they will routinely continue to use the Internet to enhance their quality of life.

The Internet is a much more flexible tool than any other communication technology for meeting the educational needs of isolated older people. The Internet is becoming increasingly easy for novices to use, information can be exchanged quickly, often in real-time, and once the technology is in place it is quite inexpensive to use. Most importantly for educational purposes however, users can access the information and communicate with others when and if they want to, rather than being captive to a course leader's timetable and agenda.

U3A Online

U3AOnline (U3AOL) was started in 1998 with the principal aim of developing and delivering over the Internet inexpensive, high quality electronic courses written by U3A volunteers, for isolated older people. A secondary aim is to provide resources to assist conventional U3As in Australia and NZ to meet their educational objectives. The program is the first of its kind. It is entirely run by volunteers who communicate by email. During the past two years U3A colleagues in the UK have begun developing online courses for its U3A members. The similarities between project objectives here and in the UK have led to a series of cooperative ventures that mark the beginnings of an international virtual U3A. One of the joint project's aims is to

provide isolated older people from any country with some of the quality-of-life experiences routinely appreciated by members of face-to-face U3A groups.

When U3AOL started in 1998 there were no reports on which to model the process of online course development for older persons, so general adult education learning principles had to suffice. For the most part this approach was reasonably effective, however some ideas subsequently had to be changed. For example it was believed that Internet learners would want to form a virtual learning community. This seemed to be a perfectly reasonable assumption based on the experience of face-to-face courses, which shows that older people are not content with a passive learning role. Instead, they wanted to engage with the course leader and others in their group. To help encourage the idea of a U3AOL virtual learning community, questions and discussion points relating to the weekly course content were posted online for discussion. Individuals could contribute at anytime during the week by typing their comments, questions or answers on an electronic Forum. In theory, participants would read everyone's comments and in turn comment when convenient for them. In practice, the majority did not contribute throughout the duration of their 8-week courses. An evaluation study (Swindell 2002), employing written questionnaires and telephone interviews, found that many participants enjoyed the courses and enjoyed reading others' comments but preferred not to interact more actively. Some responded that they needed more time for study and reflection than was possible with the scheduled release of one unit per week. All courses have since been restructured for self-study mode and these are now accessible at any time of the year. The interactive option is offered only occasionally when a course leader is available and there is sufficient demand.

The present study

The foregoing suggests that it would be helpful to know much more than is currently known about the characteristics of older people who want to learn on the Internet, and how their electronic courses should be structured. For example, what are the antecedents that might predict whether an older person chooses to take part in on-line learning? What modifications to personal learning styles might older learners need to adopt in order to compensate for ageing-related decrements such as failing eyesight, declining short-term memory, and problems with mobility or health? How do older adults rate learning on screen versus the familiarity of the printed word? Are new, high quality social networks formed by meeting like-minded others in a virtual learning community? These would seem to be among many important questions, which if they can be answered would help policy makers, program planners and adult education practitioners to develop the most appropriate online programs for older people.

The task of finding suitable and willing participants who might take part in an email inquiry was considerably helped by having access to a pool of older learners who had already experimented with Internet learning via their U3AOL courses. After each course participants are asked to voluntarily complete an online written evaluation form in which some of the questions ask for reflective comment. Those whose replies had involved substantial, analytical comment were considered most likely to be comfortable with the idea of taking part in a "virtual" study. For this reason participants for this study were invited from the group who had provided significant

feedback rather than from the general membership of people who had completed one or more courses.

Ten participants were invited to take part in an email study in which they were asked to provide reasonably lengthy responses to a series of questions about various aspects of their lives. To make it clear from the outset that participants understood that they were volunteering to do something that entailed both thinking and writing, a guideline of three paragraphs was suggested as a minimum length for each response. All ten agreed to take part. Seven were females three were males. Seven lived in Australia, two in New Zealand and one in the UK. Apart from that nothing was known about them or their backgrounds.

In essence the method can be described as a modified grounded theory approach involving a cyberspace focus group. The intent was to use their discussions to uncover some of the unknown issues that relate to older people and on-line learning. Participants were asked to respond to a single question/statement that was presented to them at approximately two-weekly intervals. Replies to these were sent only to the researchers. After receiving all replies, names and email addresses were removed and replaced by nicknames nominated by the participants. All ten anonymous responses were then consolidated into one lengthy email and sent to each of the participants, with an invitation to comment on the replies of others or add more to their own reply, if they wished. The composite responses and additional replies were then used to help structure a new question and the process repeated for a total of six questions.

Although grounded theory implies a clean mental slate to begin with, the researchers came to this study with a certain mind set regarding the underlying constructs that might be elicited via this process of email inquiry. Bronfenbrenner's circles of influence model illustrate this mind set. Bronfenbrenner (1979) distinguished between immediate (personal) and increasingly remote (impersonal) spheres of influence, with the relationship between spheres depicted in the form of ever larger concentric circles arranged around a common central axis. Commensurate with Bronfenbrenner's taxonomy, the researchers proposed that the content of participants' responses would move between immediate and personal versus remote and impersonal influences in such a way as to gradually reveal more about the person answering the questions. A further aim of the research then was to utilise the email messages generated by participants to chart and reveal the interplay of personal and impersonal circles of influence. If successful the approach would provide a method for systematically depicting the effects of the individual (personal) interacting with computers (an impersonal tool), the Internet (an empowering and possibly personal or impersonal medium), and the online courses (an outcome of Internet empowerment).

Direct questions about age, personal circumstances, education, health, isolation and so forth were deliberately avoided because the intent was to build up a virtual group dynamic in which each individual would feel sufficiently comfortable that personal details would be revealed if appropriate, within the general course of discussion. The intended approach was to make the first questions as open as possible then to use participant responses to ask increasingly detailed and perhaps more personal questions that focused on the role of the computer and the Internet in life-long learning. Thus, the first discussion starter was "Tell us something about yourself and

how you came to the Internet". This was intended to be a "comfortable" question, something like an icebreaker in a face-to-face focus group. The dual aim was to encourage participants to write freely about something that they were totally familiar with, namely themselves and their lives. As well, their initial responses would begin the process of the group getting to know each other. Hopefully, throughout the study, participants would become increasingly comfortable with the idea of self-disclosure and, subsequently feedback to a virtual group of complete strangers.

The inclusion of feedback was based on transformative learning principles derived from environmental education. That is, it was expected that in the process of responding to questions and then commenting on group feedback, individuals would be likely to become aware of, and perhaps comment on, the extent to which deeper-seated attitudes had undergone shifts occasioned by contact with a range of computer based communications systems. For instance, it seemed reasonable to expect that the need to allocate time to study on-line might have effects on the participants' social lives and that comments to this effect might colour individual answers to questions and comments on group feedback, if not initially then later in the study.

The six questions (discussion starters) were:

1. Tell us something about yourself and how you came to the Internet.
2. What are the strengths and weaknesses of online learning? It would be helpful if you specifically focus at least some of your comments on u3aonline, including the all-important personal element.
3. Personal history: What life events or personal qualities might have led you to take up computing and the Internet? (Note we are interested in your perception of self. We are not talking about technology and machines.)
4. What changes has ageing made to the way you work with information and ideas compared with how you used to work with information and ideas?
5. What effect is the Internet in general having on you with respect to the following:
 - Time management
 - Daily routine
 - Personal life
 - Character
 - Social (how has this affected your relationship with other people? Has your circle of real friends changed?)
6. What are you becoming with your interest in learning via the Internet? Where are you going with all this?

Comments on the quality of responses

From the outset it was made clear to participants that they were being asked to take part in a lengthy process that asked them to do quite a bit of thinking and writing. It was assumed that about half of the initial ten approached to participate in the study would agree to do so, and that some of these would pull out part way through the lengthy process. All ten expressed interest and apart from one male who withdrew after the first question the remaining nine replied to all six questions. One male participant developed computer problems after the second question and could no

longer reply by email. However, he remained committed to the project, received questions and group responses by snail mail and responded in the same way.

In conventional focus groups a skilled moderator can pick up on comments made by individuals, and guide the group into discussion of specific points of interest, thereby yielding personal insights that might otherwise not surface. This study attempted to introduce a similar element of group discussion by inviting participants to comment on responses from others, or by adding further to their own, but this idea proved to be impracticable. Indeed, about half the group initially took up the idea of further discussion. And furthermore, judging by the length, quality and openness of responses to the main questions, it is reasonable to surmise that most participants would have been happy to "chat" by email, about specific matters. (In fact the participant whose computer had crashed continued to submit chatty and relevant insights by snail mail, for several weeks after the email data gathering had ended.) However, the main obstacle to detailed discussion was the researchers' concern about the duration of the project. How long would a group of individuals who have full and interesting lives be able to maintain interest in a study of this kind? When participants originally were asked to take part in an email discussion they were told the study would run for about six weeks and a new question would be sent every week or so. This time frame was much too optimistic. For various reasons, including poor health, travel and computer problems the time between sending a question and receiving responses was sometimes as long as three weeks. The envisioned six-week data collection time actually took 15 weeks. Therefore the researchers chose not to press the idea of group discussion in the belief that the study would be jeopardised by further delays resulting from individual reactions to the composite responses. Despite this participants remained supportive and interested throughout as typified in the following comments.

I understand this question is to be the last. How sad it is.

I have learnt something about myself through having to answer it. Thank you I'll be looking forward to the next challenge.

The series of six questions have been very stimulating. It has enabled me to be more focused and mentally alert.

I have really enjoyed being part of this survey and have not resented any of the time it has taken to answer each question, it has made me think a lot about myself and it has been most fascinating to read the other responses and to find out that others feel as I do on certain things. I have at times been a bit worried about putting my answers up, thinking that a particular thought might seem silly to others and then blow me down some one else has the same thoughts.

The process is interesting and useful as a means of self-discovery as well as providing interesting reading about the lives of fellow travellers.

Other supportive comments of this nature suggest that participants might indeed be prepared to engage in an email discussion that is not limited by time, provided that they too benefit from the process.

The researchers assumed that participants would withdraw because the process itself was so demanding. Typing is a much more demanding activity for expressing complex ideas than conversation. In addition, after the first icebreaker the questions began to ask for deep reflection and perhaps encroached on personal territory.

However, apart from one male who withdrew after question one there was no indication from any participant, either through brevity or slowness of response, that they were bored by, or uncomfortable with the process.

The richness, depth and variety of responses were surprising. As anticipated a few replies to the first question focused mainly on safe technology-related issues. However, from the outset, other participants were unconstrained by the question or the process and wrote quite freely about themselves and their lives. Once the first composite responses had been sent to everyone, participants began to interpret the questions as though there were few boundaries on the kind of answer that was expected. In effect they began to respond in an open rather than technologically constrained way. At differing stages throughout the process, individuals outlined personal histories that helped the group to develop an understanding of the real people represented by the email nicknames. Responses of two or more pages were common and one response ran for more than three pages. A number of participants indicated that they had difficulty in answering some of the questions and chose to set the question aside for a few days while they reflected on how they intended to answer. Nonetheless, they persevered with their interpretations of the questions and did not seek clarification. The main reason for the imprecise nature of some questions was that the researchers did not want to place boundaries on responses by defining the questions too precisely.

Preliminary content analysis of a subset of responses

Two participants were excluded from the content analysis phase of the study, one because he submitted responses to only one of the questions, another because not all his responses were submitted in electronic form. In addition, individual reactions to composite responses were excluded on the grounds that they did not add significantly to those responses.

All eight participants in this phase of the study had already retired from the workforce, and with the exception of a 56 year old who had retired early due to ill-health were in their 60s (4 participants) or 70s (3 participants). All had been or were still studying U3AOL courses. Five were the children of migrants. All had travelled extensively.

The total set of responses to the six questions was entered into a single Word document and collated in terms of question and participant, with responses to each of the six questions summarised in the form of marginal notes. The resulting list of 304 marginal notes was in turn examined and recoded in terms of four major ways of talking about the Internet and its attendant technologies (computers, email, web-sites, etc). This four-category analysis of marginal notes parsed participant interactions with the Internet in terms of personal life, social life, study activities, and ageing. Of these four ways of talking about the Internet, 31 % of the comments related to personal history, 31% of comments related to study activities, 21% related to social life, and only 17% to ageing.

A secondary analysis further subdivided the four ways of talking about the Internet derived from marginal notes in terms of whether these summary comments were positive, negative, or neutral with respect to the Internet. When the relative frequency of the resulting 12 types of comments were examined, it was found that participants were most likely to make:

- positive comments about personal life (*I came to the Internet through a love of and respect for personal computers*)
- neutral comments about personal life (*My awareness of the Internet came again through my work at the university*)
- neutral comments about ageing (*I have a severe hearing loss*)
- positive comments about social life (*I have recently been delighted to renew friendship by email with an old school friend*)
- positive comments about study activities (*There are days when pain stops me from doing much at all and if I had to travel to attend a class then I would not be able to do it. Online learning for people such as myself and other “isolated” people is a real step forward*).

Participants were least likely to make:

- neutral comments about social life (*My wife is not very computer minded and tends to think I am “playing” with my toy*)
- negative comments about social life (*Can you be truly friends with an Internet pen pal?*)
- negative comments about personal life (*The Internet has been of great interest and value to me but it has also been a great time waster*)
- positive comments about ageing (*I particularly value U3A courses because I’m not being spoken down to. All too often, younger people speak to older ones with a degree of gentle tolerance. Either that or one gets ignored to the point of feeling invisible*)
- negative comments about ageing (*I have an 89-year-old friend who is as curious as I am about new knowledge and skills and life in general but time and again, whiz-bang modern PCs defeat the attempts of her eyes and hands at controlling them*).

In summary, the study’s preliminary findings that these eight online learners focus on positive Internet interactions related to personal, social, and study activities rather than on ageing per se is consistent with Rowe and Kahn’s (1998) report that the successful agers are those who work to keep their minds active. A number of follow-up questions with those participants who are interested in further contributing will help to further refine our thinking on older people’s antecedents to Internet learning.

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