

Text Analysis – Email “focus group”

Overview of analysis

This is an analysis of the email responses from nine participants in a study of computing, electronic communication, and online learning among people who have retired from the paid workforce.

The responses from the nine participants to eleven questions were analysed by identifying and categorising units of meaning. Because the responses were written in stream of consciousness style, they merged characteristics of speech and writing. For this reason, the units of meaning were identified using topic sentences and preview statements as markers of the beginning of units, and concluding, summary and transition statements (where used) as markers of a completed unit. These units varied from single sentences (occasional only) to very lengthy text segments up to twelve sentences with the average being three or four sentences. Comments about the task being completed such as ‘Well you’ve really made me think’ and ‘I hope this is what you want’ were not analysed.

The analysis was carried out by identifying the units in one complete set of responses and labelling these with preliminary categories. Other sets of responses were treated in the same fashion with new categories created as needed, resulting in over fifty categories. These were then re-categorised into twenty-seven dominant themes. This was still unwieldy as a number of responses fell into several categories.

The following steps were taken to render the data more manageable:

- (1) Personal information such as respondents’ education, profession, location, age, gender and health were summarised in **Table 1. Overview of Respondents**.
- (2) Background information about how the respondents were introduced to computing was collated. Most included computing as a first step, followed by separate information about the transition to email, Internet and U3A Online. These are included in **Section 1 Catalyst for Involvement with Computers** and act as a background while comments on current use of these were integrated into the various themes.
- (3) Summary tables of the strengths and weaknesses of online learning were constructed. In many responses, computing, email, Internet and learning online seemed to be used interchangeably but it was possible to draw out comments specific to online courses and online learning by using the responses to Question Two and further comments about online learning in responses to the other questions. This summary is included as **Table 2a: Strengths of Online Learning** and **Table 2b: Weaknesses of Online Learning**.

The ninety-nine responses were then worked through a second time and categories were re-formed.

Responses that could be labelled as personal are recorded here in two sections. The information about self concept and self esteem was separated from health, family and friends as it gives a glimpse of what could be called ‘emotional health’ and relates to confidence and self image. Sections follow these on approaches to learning and information, and daily routine and practical uses of computing. The final section contains five sub-themes which were strong but which didn’t fall logically into the other four sections.

Italic text appearing throughout the analysis signifies direct quoting.

Overview of themes

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Table 1: Overview of respondents

ID	Profession/Education	Location	Age/Marital	Gender	Health
Marmar	Anthropologist Researching sea walls in Victoria	Rural Victoria	Not mentioned	Female	Good (Profound hearing loss)
MM	A Mus A PHD Ancient Greece	Adelaide	70 Widow	Female	Reasonably good
RT	Retired School Guidance Officer. Degree in science and some divinity qualifications.	Large rural town NZ	Married	Male	Good. Passed medical for pilot licence (Knee reconstruction)
Painter	Librarian/Teacher MA	England	Late 60s Married	Female	Good
Ginger	Med secretary/Office manager. Retired early (ill-health) at 46		56 Married Husband is blind	Female	Severe back problems and chronic pain
Rev	Clergy/Tertiary Education		Married	Male	Some problems but controlled at moment.
Kiwi	Administration BA (part of double degree)	NZ		Female	Good but diagnosis of gall bladder cancer during project.
Pip	Retired Primary Principal	South Australia Metropolitan	75 Married	Female	Severe hearing loss Leukaemia Arthritis Osteoporosis
Leon	JP, Engineer? Economic planning	Brisbane (ex Philippines Darwin)	72 Married	Male	Heart Problems, Diabetic Wife poor health

Table 2a: Strengths of Online Learning

Flexibility	Ginger, Painter, Rev, MM, Pip, Leon
Convenience	Painter, RT, Pip, Leon
Access eg overcomes limitations of disability and geographical isolation	Ginger, Marmar, RT, Painter, MM, Pip, Leon
'Meeting' people one would not normally meet, Reduces isolation, Learning with others and interacting with like minds	Ginger, Marmar, Painter, Kiwi, Pip Rev
Can concentrate on subject matter without interruptions of classes.	Leon
Can be transition to higher study in academic institution	Leon
Anonymity; Can be 'braver';	Leon, Rev
Current learning becomes catalyst for new learning	Ginger, RT, Rev, Pip, MM, Marmar
Can be inexpensive compared to TAFE and uni	Rev, Pip, Leon, MM
Up to date information from whole world. Can maintain professional currency	Marmar
Builds confidence, gives intellectual challenges. Access to new knowledge.	Pip, Rev, MM
Can share new knowledge with partner	Pip, Rev
Guided 'pre-selected' content. Provides structure for approaching new topics.	RT, Kiwi
Mostly high quality courses – content and tutorial help. Treated as 'serious learner'	Pip, Marmar, RT
Course choice is helped by students' online comments and tutors' summaries.	Painter

Table 2b: Weaknesses of Online Learning

Dislike reading from screen	Ginger, RT
Impersonal approach Non-verbal cues missing	Leon, Marmar, Kiwi, RT, Pip
Can be expensive	Ginger, RT, MM, Pip
Lack of spontaneous feedback compared to classes. Solitary activity	Ginger, Leon, Marmar, Kiwi, RT, Rev, Pip
Need for equipment and skill. Speed of technological change (equipment, skills needed, terminology is daunting). Danger of viruses.	Marmar, Painter, MM, Rev, Pip
Lack of confidence to contribute to online discussions	Ginger, MM
Quality of online courses could be improved. Some comments: ➤ Lack of choice Elementary standard Courses lack clear instructions/ outlines Overwhelming number of links Undeveloped medium as yet. Questionable quality of some sites. Online course coordinators should assess sites and links	Leon, Kiwi, RT, MM, Painter, Marmar
Needs self discipline	Painter (compare with Kiwi – provides structure)
Time consuming – takes from other activities, partner	Rev, Ginger, Leon

1.0 Catalyst for involvement with computers

The respondents describe a range of personal, work related and educational events and characteristics that acted as catalysts for learning to use computers. With the exception of one, all had early contact (1980s back to 1960s). Most saw the potential for work or personal use and actively set out to learn more about computers. Several mentioned that their children's interest in computers gave them an interest. Those who bought computers in the early 80s comment that they needed to persevere with unsophisticated programs and frequent changes in technology necessitating frequent upgrades.

One was required to learn computing as part of her job while others saw a role for computers in their work, personal lives and study. Most described two moves – firstly into computing and later into the Internet, email and online learning.

Rev: As a member of the clergy, had extensive record keeping and correspondence needs. Saw potential in computers for saving time, word processing and as database. Bought computer very early.

Marmar: First contact 1988. Saw potential use in work as researcher. Bought first computer immediately, then a laptop in 1992. Connected to Internet in 1996. Aware of both earlier but didn't begin till personally useful.

MM: Was mature age student handwriting essays. Found a lounge for mature age students where information was available about word processing. In last 17 years, has bought first computer, then began using email and finally became curious about the WWW. Has needed to upgrade several times.

RT: Children were original motivator. Very early computer experience in schools as well as sharing, with son, enjoyment of space invader type games. Taught early programming and experimented with educational programs. Highly computer literate. Discovered grammar and spellcheckers, which encouraged him to use computer for correspondence.

Painter: *Computers were just beginning to appear in my life in 1984 and I went on a short beginners' course for a weekend and then promptly forgot everything because I had no opportunity to use it. ... So in 1986 for the last 12 years of my working life I acquired an office, a secretary and a computer with all the back up of the university computer centre!*

.... So I suppose you could say that it was work events and a natural curiosity and fear of getting left behind which prompted me into computing.

Learnt a lot about computers by helping husband who belongs to committees and is not 'technically minded'.

Leon: Had long wanted a computer. First experience was as President of Filipino Senior Citizens Assoc, Darwin. Bought own computer with daughter's help (paid in instalments). Original seller gave one-to-one help, read computer literature, attended training; children helped.

Ginger: Husband bought first computer in 1985. He is blind and saw the potential to 'read' text using speech synthesiser. Main impetus for learning about computers was desire to help husband.

Kiwi: Computer training was required as part of work in university administration. Also had children who were interested from an early age.

Pip: As a primary school principal, wanted to use up to date teaching, administration, and innovative teaching methods. Apprehensive at first but bought early computer as felt computer literacy would become necessary in her daily work.

1.1 Transition to using Email, the Internet, and online learning

The transition from using a PC only to going online was prompted by a variety of circumstances: encouragement from others, work requirements, attraction of having vast amounts of information at hand, desire to preserve intellectual health and memory, potential for keeping contact with friends and relatives, the need to be current, and chance.

Marmar: *I came to the Internet through a love of and respect for personal computers. (Bought first computer 1988; Connected to Internet 1996) Niece encouraged her to try the Internet. Currently completing a research study ... I was delighted with the idealistic possibilities of educating the world through the Internet.*

Painter: Started using email in early 90's. Young female work colleague encouraged her to try the Internet. Influenced by atmosphere at work where online information gathering was taken for granted. Does not actively seek new technologies but likes to keep up.

Ginger: Had a fear of contracting dementia, which her mother had. Wants to keep mind as active as possible. Also, isolation/restrictions imposed by ill health make email and online courses a way to keep in touch with friends and the 'outside world'.

Rev: Read about the 'superhighway' and saw potential for having vast amounts of information at fingertips BUT found quality of information dubious.

Kiwi: Did Internet course at work but didn't really use it until retirement.

Pip: Connected to Internet in 1998 after helping a friend 'babysit' a relative's computer, which was connected to the Internet. *I bought every Computer Dummies book on the shelves. Even then it was all too difficult, too confusing and too technical.* Persisted nevertheless and found a U3A Online site. *...it was as if things were falling into place.*

MM: Not knowing what others seemed to know about was like 'waving a red rag at a bull'.

RT: Connected to Internet as soon as telephone lines in area became static free. Heard about U3A from a friend. Internet became important way to keep in touch with children when they moved away from home, and relatives who live overseas.

2.0 Major theme: Personal

2.1 Health: Physical and Psychosocial

Three of the nine have serious physical health problems which were described in some detail, and another became seriously ill during the study. There is a very clear link between the importance placed on electronic communication, online learning, and use of the Internet by the respondents who have conditions which keep them at home for long periods.

One participant who describes experiencing difficulties and some near breakdowns finds that online learning is one coping mechanism that she uses to keep busy. This helps keep her mentally well. Two participants with profound hearing loss find email and online discussion very enjoyable as they can communicate in ways to which hearing is not important.

Three participants see computing and Internet use as pleasurable experiences which provide fun, escape and relaxation.

Rev: Has some problems (prostate, thyroid, arthritis) but all controlled at the moment. Uses word games, online courses, tutoring and some preaching to keep mentally alert.

MM: Physical health is reasonably good. Smoked cigarettes and drank alcohol for over thirty years but now does neither. Wants to remain intellectually competent: takes courses online and offline, plays piano several hours a day, is redoing a former course in Ancient Greek, visits library weekly.

Painter: Physical health is mostly good. Believes in good food and some exercise. Has felt close to a breakdown on a number of occasions but has several coping mechanisms, one of which is to keep busy.

Marmar: Health is good though has a severe hearing loss. Attributes her good health to good food, sleep, exercise and family stability in her childhood. Did drink alcohol and smoked cigarettes for most of adult life but now does neither. Has always walked for

exercise. Enjoys company and solace. Finds spiritual activities are important. Feels that continued learning is important to her well-being.

RT: Health is good. Passes thorough medicals to keep his pilot's licence.

Kiwi: Health has been good but diagnosed with cancer during participation in this study.

Pip: Has some serious health problems (leukaemia, arthritis, profound hearing impairment, osteoporosis) but '*I think I haven't slowed down*'. Profound hearing loss makes conversation difficult so online friendships are very important. Makes her feel less cut off.

Leon: Both he and his wife are 'sickly'. Leon has had a heart bypass, has had a stroke, and is diabetic. Health problems impact quite strongly on daily activities. Sees his many study, leisure and volunteer activities contributing to his mental health.

Ginger: Has severe health problems with back problems and chronic pain.

2.2 Relationships/Friendships

Three respondents expressed concern that their time spent online and their interest in computing could impact on time spent with their partners. Each say that they take steps to minimise this.

Email is particularly important for the three who spend a lot of time at home because of health or limited budgets and for the two who have profound hearing loss.

A strong theme is the value of email to maintaining friendships and contact with relatives who live at a distance, particularly in other countries. Most participants have travelled extensively or worked in other countries and several mentioned the ease of email compared to the trials of third world postal and telephone systems. Several mentioned that email allows friendships to develop where distance would not have allowed this, while other friendships have endured that once would have faded.

Rev: Worries that time spent on computer takes from time spent with wife but tries to discuss what he's doing with her. Does look up medication information for her. Friendships are '*few, long lasting and scattered*'.

Leon: Computers are time consuming and could take away time he could spend with his wife. Makes sure this doesn't happen. Email has allowed instant contact with siblings and former workmates overseas. Does reduce isolation.

One intangible benefit that I am deriving from online activities is the social interaction that could be developed. I am in an adopted country and the process of assimilation into the local atmosphere I attach plenty of importance, the thoughts that they have, the reaction to certain social issues and the like. The other benefit is that I am able to assess myself as a person before I migrated and after staying in my second home.

Marmar: *I have made new friends in real life and then continued the contact online. I have made new friends online and continued the contact in real life. All in all, the net has brought me more friends and enriched my old friendships.*

MM: Moved many times. Didn't keep up long distance friendships. Friends limited to co-participants in current activities. Too busy to feel lonely. Uses email to keep contact with relatives. Independent and self-sufficient person. Practises piano several hours a day. Email has increased social contact with family and distant friends.

RT: Best friend is wife. Avoids chat rooms. Doesn't want on-line friendships. Email has allowed old friendship to be rekindled. The Christmas letter type of friend now is in constant contact. Has made many new friends since retiring. Online courses are something he does 'by himself'.

Ginger: *It used to be said that the telephone was the umbilical cord to the world for many older, lonely people. Now, for many, it's the telephone attached to the computer.* Email use has allowed rekindling of earlier friendships and getting to know international relatives.

Kiwi: Divides friends into computer literate and non-computer literate. Friends and family are very important, even more so since being diagnosed with cancer.

Pip: Has small number of very good friends. Now has profound hearing loss so conversation is difficult. *'Grateful for online friendships' as 'I do not feel completely cut off'.* Greatly enjoys friendships developed via online courses. *It's as though cyber-space has replaced the comforting natter over a backyard fence.*

Painter: Has partner (husband is best friend), family, friends and acquaintances. Uses face-to-face, telephone and email for social contact. Email is most important for international communication. Email allows some friendships to flourish which would not normally develop and saves some which would normally fade due to distance. *Email has revolutionised my attitude to keeping in touch.*

2.3 Friendships on line

Attitudes to making friends online fall into definitely yes and definitely no. However it is interesting to note that the three who are most housebound through illness are the three who value online friendships the most.

Marmar: Has 'met' people online and developed friendships; existing friendships are maintained using email. Her profound hearing loss is not an issue when using electronic communication.

MM: Would like to be able to telephone or meet those from discussion groups who live in same city (expense of on-line time). Hasn't made online friends but limits online time very strictly.

RT: Doesn't have online friends Stays away from chat rooms and discussion groups

Leon: Takes the opportunity to meet people online. Would like real names of group participants. Likes to see photos. Email has allowed him to contact former workers spread over five continents. *We may have all aged after all these years but there is a strange bond being established by each of us.* Likes to be with people. Doesn't like the faceless nature of online communication.

Ginger: Would like to interact more with class participants but finds that few respond.

Kiwi: Doesn't want online friendships.

Pip: Values friendships made through U3A Online very much.

Painter: Doesn't spend time in chat rooms.

Rev: Doesn't see online friendships as valuable as real friendships. Keeps 'real' friends and 'virtual' friends separate *until such time as we may meet and look into each other's eyes.*

3.0 Major theme: Self image

These comments could be categorised as the role of computing and electronic communication in emotional health. Most commented that computing had not changed their character; rather, their personality affected their approach. Two found that they could use the anonymity of online communication to experiment with different personas – to be bolder. Several noted that learning online and learning to master the new technologies revealed strengths they were unaware of.

Painter: Feels freer from commercial pressures and can 'bypass the experts' because so much information is available on line. Empowering.

Marmar: *Being able to talk about cyberspace and move around it certainly makes me feel I am "up" with current trends. I like that. I do not like feeling ignorant and I need some control over my life.*

Rev: Worries that he spends too much time on Internet/U3A online so *'It is gratifying when occasionally [my wife] will ask me to find some information for her.'* Feels that computer expertise is now a positive trait when once was seen as nerdy.

Leon: Makes the point that volunteer work in small organisations allows him to use his expertise whereas large organisations restrict him to menial tasks. First hands-on experience of computing came through volunteer work. Feels more articulate and confident since working with computers.

Ginger: Has many friends who do not use computer and ask her to look things up. *They seem to think that because I can use a computer I have special abilities!! It is nice to be thought of as special at times!!!!* ... Learning when not forced to can be done at own pace and gives a sense of achievement.

Pip: Health challenges of later years have given her an understanding of how determined she can be. Gains a sense of importance/competence when with people of similar age who are not computer literate. Feels she is less sociable, more insular but computing has made her recognise perseverance, lateral thinking and risk-taking in herself.

3.1 Self esteem specific to ageing

These comments relate to computing and ageing. There is a very strong theme of 'keeping up with the times' and 'not getting left behind'. Two respondents noted that the anonymity of online communication was empowering in that those they communicated with didn't necessarily know that they were older people. They could avoid the stereotyping of ageing.

Marmar: Feels that librarians may not take her research seriously when they see her grey hair and this is not an issue when she communicates online. Feels changes that come with old age are perceived as negative. Believes that her work as a researcher is enriched by age ... *I am sure of what I know.* Tried traditional 'retirement activities' but did not enjoy them. Asked herself *"Where are all the people I want to talk to?"* and *I discovered to my continuing delight that they are online.* Likes to teach elderly users but *sometimes finds it frustrating that computer technology still lacks the breakthrough that makes learning to "drive" them easier.*

MM: *I guess being familiar with the Internet etc makes me feel as if I am keeping up with the world in at least one way..... but I am trying to keep up somewhat with modern technology so I can appear interested when there is a discussion, and even join in. I*

know quite a few older people who are quite uninterested and don't intend to learn. I don't want to join them (at least, not yet) in the last century. Predicts that electronic computing will play a larger role in her life when advancing age makes her more housebound though ability to afford the technology will influence this.

RT. The challenge of keeping up with technology is part of my motivation.

Painter: *Had a fear of 'getting left behind' ... but I was talking this morning to some people in their 70s who have computers and mobile phones, but never switch them on!*

Ginger: *I did not want to get left behindI had grandchildren coming along and wanted to be "interesting" to them. I wanted to be someone they could come to and talk about their use of computers.*

Kiwi: Seems frustrated with people her age who show little interest in computers.

Pip: *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.*

3.2 Personal characteristics which contributed to mastering computing.

Caution should be employed extrapolating findings to the general ageing population though responses provide a fascinating picture of what gave these participants the original interest in computing. These respondents have extensive tertiary education and strong links with learning institutions (anthropologist, teacher, librarian (2), school guidance officer, university admin officer with double degree, a member of the clergy with extensive qualifications). The exception (Ginger) has had a long-term wish to complete a degree, which ill health has thwarted several times. Thus there are strong links with learning as a formal, institutional activity.

The respondents all seem to have qualities that led them to computing and gave them the persistence to pursue it despite technical difficulties and the number of new skills required. They report that they are curious people who are careful risk takers. They are widely travelled (two as 'alternative' tourists who travel 'off the beaten track') have lived in a number of different places, migrated. Most have ample time for online activities with several mentioning that family do not live close by and they are not required to care for grandchildren.

Three identify having 'something to prove' (to a mother [deceased], a father [deceased], and an ex-partner) as a strong impetus for mastering new technology.

Marmar: Is a determined person. Likes to feel in control of her life and that includes keeping up with change. Feels that persistence guided her approach to computers rather than risk taking.

RT: Obtained pilot licence after turning 50 and flew family around New Zealand. Constantly taking on new projects. Is 'curious' and has a very wide range of interests and activities. Takes risks but with caution.

MM: Migrated from Canada. Went to university as a 'very' mature aged student who completed a doctorate. Feels that she had to prove to her father that she was 'as good as a boy'. Is widely travelled and has travelled alone overseas. Is a 'curious' and self-sufficient person. Took up word-processing as a convenience but learnt about the Internet because she likes to keep current.

Painter: Genes, position in family (youngest after long break), attitude of parents and partner made her independent and willing to have a go. Likes to solve problems herself. Sees Internet as a way to get information and '*bypass the experts*'. All these caused her to put time, money and effort into computing and 'getting on-line'.

Ginger: Second marriage gave her confidence to try new things.

Leon: Migrated to Australia in 1991 (daughter lived in Darwin). Took a year to decide. Widely travelled. Likes to savour 'local atmosphere' when travelling. Is a disciplined and determined person. Despite serious health problems, exercises daily and works as a volunteer. Takes advantage of technological advances and looks forward to new medical technology which may alleviate some of his symptoms.

Rev: Single parent family, wartime childhood in impoverished conditions, then stepfather. Move from England to Malaya gave him a 'healthy scepticism about advantages of being English'. Became open to new ideas and willing to 'have a go'. Sees openness and willingness to take risks as both contributing to success with computers.

Kiwi: Schooling encouraged questioning and challenging ideas and practices. Only child of strict parents. Spent a lot of time alone and still does. Learnt to love books and 'finding out'. Still does. *The Internet could well have been developed to meet my needs.* Has a habit of not giving up once something is started.

Pip: Has a thirst for learning. Has always questioned and challenged. Parents (especially mother) wanted her to achieve more than they had. Set high standards often not possible to achieve. Often felt a failure in mother's eyes. Mastering computers and electronic communication made her realise she could succeed. Does take some risks (emigrating, learning to drive, introducing innovative teaching methods at work, travelling alone).

3.3 Ongoing role for electronic communication and use of the Internet

All participants make predictions that computers, online learning and the Internet will continue to play an important personal role.

Marmar *I do not believe I am changing as a consequence of my use of computers but I am empowered by it to keep on keeping on. For me engaging with computers and the Internet is a voyage of continuing wonder. We have not yet seen where they can take us and I want to be there all the way.*

RT: Sees U3Aonline courses as a way 'to stop him going rusty'. *One of the biggest contributions to my present and my future has been, and will no doubt remain, the Internet.*

MM: Has bought a number of games for computers with the idea that they will entertain her when she is older and less able to leave the house. Also sees computing as important to aged persons. *I know quite a few older people who are not interested [in modern technology] who don't intend to learn [computing]. I don't want to join them... in the last century.*

Painter: *I may not be able to keep up with her [grand-daughter] but I am determined to be there puffing along in the rear.*

Leon: To maintain mental alertness and to keep an active mind. ... *I am willing to sacrifice other amenities provided I have a well functioning computer. Cyberspace has always been my curiosity. It is now part of my life.* Has many ongoing projects such as a family memoir.

Rev: Sees U3A online as way of keeping mind active. Uses computers for pleasure *I am more contented and more relaxed. ... I don't know where I'm going but I'm enjoying it all the way*. Sees U3A online as opportunity to keep learning

Kiwi: *I'm keeping an open mind on where I'm going but I'm sure it will be an interesting journey*

Pip: *...it's hard to imagine a life without being able to find information on the net and send and receive emails...Uses computer and Internet for 'time out' For a time I am totally self-indulgent and it feels good. Finds 'relaxation and stimulation' through U3A Courses and plans to continue.*

Ginger: Will keep doing courses as wants to keep brain active and memory in good shape.

4.0 Major theme: Approaches to learning and information

4.1 Approaches to learning

Respondents show a deliberate or overt approach to learning as well as an understanding that learning can be incidental. All but one have tertiary qualifications including two with doctorates and several with double degrees. The respondent without a degree had several attempts at gaining qualifications interrupted by ill health. Several mention that online learning by its nature encourages further learning because of the links provided and awareness of other courses as well as the actual act of learning how to keep up with computer technology and master new software.

RT: Decided that doing courses would stop him 'going rusty' after he retired. Use of Internet is making him better informed about wide range of events and ideas. Has an innate sense of curiosity. Is an avid reader of scientific and technical articles.

Ginger: Decided to do courses given anecdotal evidence of 'use it or lose it' way to avoid dementia. Painkillers affect her memory and she wants to minimise this. Mother had dementia. Wants to avoid this and thinks active learning will help. *As long as there is a chance [that keeping the brain active will prevent dementia] I will keep my mind as active as possible for as long as possible.*

MM: Is redoing a university course at her own pace because she doesn't want to forget it. Is a curious person. Finds that completing courses promotes new learning in that she'll notice and read with interest newspaper articles relevant to the topic. Finds that social groups of older persons don't often discuss stimulating topics, a void she fills with organised courses.

Painter: Finds U3A courses fairly elementary but enjoys them BUT the realm of computers and the Internet involves learning as well. Has learnt many new skills. *I have probably learned most about using my computer by writing two specialist books. A Dictionary of Information and Library Management (aimed at my foreign students) and A History of the Ladies Guild of Change Ringers. This had lots of pictures and charts and taught me about scanners. I am now learning how to scan my paintings into the machine to make greetings cards!!* Also, is comfortable with distance learning. Has taken many distance courses over life time

Marmar: Participates in a wide range of academic activities. Is always looking for activities that provide opportunities to learn something new. *Learning is important to my well-being.*

Rev: Has an open mind and a willingness to keep learning. Participates in U3A to keep his mind active. Has been studying and passing exams all his life and now enjoys learning for enjoyment. *So at last I have the time, opportunity and inclination to read and study those things that interest me...* Believes that he has a mind that 'will not accept that it knows all there is to know that's worth knowing'. Hasn't followed up on most courses but likes the fact that learning can be as ongoing as he wants. Takes some courses related to his interests and some totally new.

Pip Online courses and use of computer do not supplant other activities but enhances them. Visits library more, buys more books. Passion for learning... *In my 70's I am as eager, if not more so, to discover new ideas and sources of information than at any time in my life. Not to pass exams or earn an income, just for the pure love of learning.*

4.2 Approaches to information

Most respondents mention the scope of information available online. Several mentioned the need to be selective about how it is used as there is little quality control over content posted on Web. Two mentioned that the amount of information can be overwhelming.

Two prefer print-based information and download and print extensively. For one, this is because he feels eyestrain, for the other the cost of the Internet connection time has to be monitored carefully.

Painter: Till mid 80s, approach to information was print-based and verbal. Then began to focus on accessibility and organization of information. Thinks life lived is an advantage in evaluating quality of information. Worries that some people do not bother to evaluate quality of information, especially that derived from the Internet. Found that exploring the Internet on a work computer without the worry of a phone bill was a great help. Retirement has brought some changes - *the ideas that I want to work with and the information needs they create have become wider as my life has become freer after retirement to explore the many things that interest me.*

Rev: Work as a clergyman always involved record keeping. Where and how to retrieve information has been a constant task throughout his work. Enjoys expansive amount of information available online but is aware that much of it has dubious credibility. Sees much information as 'filtered' or pre-digested for commercial purposes and to serve vested interests before it reaches the public.

Pip: Now has more choice about what information she wants compared to work requirements earlier. Appreciates having the time to research thoroughly.

MM: Still prefers printed information but online time is very limited by budget. Uses good local library weekly. Misses ideas and information once gained through discussion groups and seminars.

Marmar: Uses online sources for her research study as far as possible then travels to libraries to do field work. Feels that advanced years are an advantage when dealing with information. *I am sure of what I know and what I do not know.* Feels that she can sort information more quickly and write more succinctly as experience allows her to be more discerning.

RT: Computer and email allow him to participate on the executives of seven local interest groups/clubs. Finds that where once computing was only for personal use, he now has records and information relevant to others so problems such as computer crashes have greater significance.

5.0 Major theme: Role of computing in daily routine and time management

As well as participating in U3A Online courses, respondents described a range of practical uses for computers and the Internet which includes sourcing information, for communicating, and storing data. Computers play an important role in day-to-day life such as shopping, banking, planning travel, research, email, and correspondence.

Three respondents usually have their computer turned on and connected from early morning until late in the evening while two work mostly offline and connect for as little time as possible in order to save money and to keep the phone line free.

Three note that finding information on medical conditions and medications is an important use.

The Internet is also seen as a very handy and important source of information to enhance enjoyment of hobbies and interests.

Painter: Uses Internet for banking, planning travel, shopping and much searching for information. Uses email constantly. Finds it invaluable for contact with friends in countries without reliable postal systems. Computers eat time. Has probably made her less efficient. Computer is rarely not connected. Technology is a tool like a car or the telephone. Feels a freedom from commercial pressures. Has made life easier – allowed her to work at home. Saves travelling time and costs.

Marmar: For research and writing. Looking up information for home such as new flooring, hot water system, recipes. Email for friends and family. Making time for computer activities is part of her daily ritual and time management. Reads less now and writes more. Finds access to information and having the means to manipulate data very useful.

MM: Internet banking and bill paying, email. Computers have not changed her daily routines or time management except that electronic communication saves time so she writes more letters.

RT: Uses computer/Internet for publicity brochures, newsletters, bookkeeping for a number of clubs and volunteer organisations. Acts as contact agent for organisations. Deals with one club's business per day. Daily life is more relaxed than when in paid workforce. Checks weather and news online and plays games on computer. Has computer turned on and connected all day. *...my Internet use is a small part of a larger whole.*

Leon: Email, medical information, autobiography, helping to record family history, volunteer work. Limits himself to about three hours a day on his computer. Has to be disciplined or he would spend much more time there. Internet has definitely changed his daily routine.

Ginger: Writing letters, maintaining family history database, email, Web, online shopping. Finds information relevant to hobbies and interests. Doesn't use her computer every day. Finds that computers are time consuming.

Kiwi: Writing (a memoir), email, finding information, dealing with 'organisations' such as libraries.

Rev: Email, word processing, filing and storing data. Looks up medical information for wife. Sees computers as time sapping. Uses computer early in morning so phone line is free for remainder of day.

Pip: Electronic communication has totally changed daily rituals. Rushes through essential tasks so that she can get on to the computer. Has long involvement with creative writing. Led a creative writing group for 8 years. Uses email extensively and finds it inexpensive and immediate.

6.0 Sub themes

6.1 Changing technology/dealing with technology as a difficulty

A consistent theme throughout the responses deals with the skills required to use computers and the Internet and the speed of technological change. Comments indicate that equipment, skills, even vocabularies need constant updating. Respondents show wide resourcefulness in doing this (using more computer literate friends and family members, computing firms, online help, dogged persistence and experimentation). Only one (MM) indicated that technical difficulties hampered her use. Painter notes that there is a looming equity issue with all this.

Marmar: Has persisted with challenge of technological change

MM:.... *Have had a computer for a good few years and still manage sometimes to get it all wrong, such as Fatal Errors now and then. I'm okay as long as it's working well. Would appreciate extra help with computing functions eg how to download from Web to her PC. Took a long time to work out how to participate in discussion groups. Currently prints everything.*

RT: Prints everything. Finds cost is high (printer cartridges etc)
Finds out-of-date links frustrating. Has experienced total hard drive crash and lost programs and files.

Ginger: *I sometimes resent the amount of time I need to spend on sorting out some problems.*

Rev: Doesn't mention technical difficulties. Always on quest to find best information (very time-consuming).

Kiwi: Doesn't mention any technical difficulties

Leon: Doesn't mention technical difficulties now but describes the advantage of one-to-one help when first learning.

Painter: Had some problems working from home '*without my secretary or the backup from the Computer Centre*'. Still feels computer illiterate when things go wrong but starts again if computer crashes. Had a few virus disasters but now has virus protection.

6.2 Role of computers and relationships with others

Respondents encourage others to become computer literate, expressing frustration at times, but overall arguing that computer literacy is very important for full functioning in society.

Painter: Concerned about participation in committees for people without email. Committee members won't wait for snail mail. *I also find that in a group of people, say five on a sub committee, four of whom have email and one has not, the one who has not gradually gets ignored because we cannot be bothered to wait for the hard copy snail*

mail replies. *I do not like this tendency, but have to recognise it in myself and I think in others.*

Concern about equity issues: *The world is getting smaller for those who can afford it.*

Marmar: Has spent a lot of time teaching others. Finds this frustrating at times. Suggests that more research be done into learning difficulties specific to ageing. (Mentions physical aspects such as vision and physically being able to control the mouse and use the keyboard.) Feels that access to information online is important for people who want to participate fully in a democracy. Also predicts that traditional groups attended by older people such as CWA and RSL will be less active and online communities will grow. Sees computing as a tool that can be compared to the telephone or electricity. Sees those not taking up computing as being disadvantaged (similar to not being able to read and write in former times). *I feel that people who reject computers and the Internet today are missing out. I don't like missing out on good things and good experiences. ...Unless we move quickly, my generation of over 60s are going to miss out on the wonders of the net.... ...It's time to invent new places for older people.* Comments that older thinkers and researchers can be a force to be reckoned with.

Ginger: *I hope I have encouraged others to take up using the computer and the Internet as a means of learning.* Comments that she finds people who 'under use' their computers are missing out, specifically those who limit use to email.

Kiwi: Feels frustrated with friends and acquaintances who show no interest in computing.

Rev: Have to be careful not to bore non-computer users with computing jargon.

Pip: *I delight in encouraging and helping others develop computer skills.*

MM: Feels frustrated with aged people who take no interest in computing. Occasionally is able to help others who are new to the Internet.

6.3 Anonymity of online communication

Six respondents commented on anonymity of online communication and identified advantages and disadvantages.

Marmar: *I may therefore appear more outgoing and talkative online than I am without the Internet. I don't think I behave differently in other ways than before.*

MM: Took a while to find courage to contribute to online discussion. *It would help to know whether contributors to discussion forums were male or female though it shouldn't matter.*

Leon: Appreciates need for privacy but would like real names of project participants. Doesn't like 'faceless' nature of electronic communication.

Kiwi: More difficult to communicate exact meaning without help of non-verbal cues provided face-to-face BUT *Another aspect that I enjoy is the way in which it is possible to feel an instant rapport with someone never met in the flesh. There is something about exchanging thoughts, with no physical barriers to create a preconceived idea of what that person may be like, and no feeling that one should behave in a certain way when conversing with a stranger, which makes it much easier to get to know somebody quickly, although often this seems to apply to only certain subjects.*

Pip: Has made good friends online. Says emails can resound with love and humour.

Rev: People who might not contribute to an in-person discussion may participate without embarrassment in an online discussion.

6.4 Computing and isolation

Five respondents described a reduction in feelings of isolation. Computing reduces geographical isolation (2) and social isolation caused by ill health (3). There is quite a clear distinction shown in responses between those who describe themselves as in good health and with no physical limitations and those who are housebound or geographically isolated. There seems to be a very strong evidence for the people in this study that electronic communication can reduce feelings of isolation.

Marmar: Computing and Internet are important as she lives in rural Victoria and she has a hearing loss which makes conversation difficult. Is undertaking primary research on earthen sea walls and much preliminary work can be done from home.

RT: Lives in rural town. Internet is very important means of keeping in touch with family and friends. Internet is important to intellectual health because of poor local library and no tertiary education facilities in town.

Leon: Lives in Brisbane but ill health and no driver's licence mean he is home most of time. Also migrated from the Philippines and found that Internet activities helped with 'assimilation' *My getting involved with either the simple internet activities or the more complicated hi-tech cyberspace sub-project have led me to present events which are beyond my expectations. The feeling of loneliness is simply overcome.* The Internet and email play a very significant role in reducing isolation.

Ginger: Major problems with her back (*major nerve damage and chronic severe pain*) meant retirement at 46. Had to give up plan to complete a degree - very disappointed. Computing and Internet became very important. *"I was part of society again."*

Kiwi: Doesn't feel isolated but uses email to maintain friendships that could have lapsed.

Pip: Reduces social isolation caused by profound hearing loss. Felt 'bereft' and 'frustration and a sense of isolation' when computer system failed.

MM: Spends a lot of time alone as has been widowed for 26 years. Email has increased social contact with family and distant friends. Too busy to feel isolated but thinks her computer and Web connection will become more important as she ages and is less able to leave the house.

Painter: Very busy. Doesn't feel isolated.

BUT

Rev: Comments that computers/Internet encourage isolation as much time is spent which takes away from time with partner and friends. Does comment that age brings a 'shrinking world' *In retirement I do not travel so much or so long or so far.* Finds that the speed of email can reduce feelings of isolation.

Leon: Mentions that his love of computing could lessen time spent with his wife

6.5 Restrictions (financial/physical movement)

This final sub-theme is interesting for what it shows about adapting to changes that come with ageing. Two have extremely limited budgets but see computing and Internet connections as priorities and will 'trade' spending money on other purchases and activities to maintain their computer access. Three have severe health problems but still pursue a wide range of interests and activities. There are comments about the advantages that come with 'a life lived' such as a broad base from which to make decisions and scepticism about 'new' ideas always meaning better.

Overall, negative comments and descriptions of difficulties, bad luck, or restrictions are few. Most see difficulties and challenges as opportunities for personal growth and that who they are today and their strength and determination have been influenced by challenges they have faced. Some restrictions are illustrated by the following comments:

MM Expense (lives on pension only). She must budget for Internet and limit use. Doesn't go out much. Dislikes parking, driving at night. Cost of outings is prohibitive at times and has made her more housebound. Would appreciate book references in online courses for those who have to limit their online time because of cost of downloads.

Leon: Doesn't drive anymore. Responsibilities mean can't be available for regular classes. Has a heart condition, and wife has health problems as well. Has to be very careful with budget (pension only). Works around these with focus on what he can do rather than what he can't do. Has many ongoing activities.

Ginger: Severely restricted by back problems and chronic pain but has a wide range of interests and activities. Doesn't waste a moment of time when she feels well.

Rev: No restrictions at moment except has only one phone line. Works online early in morning and late at night. Finds reading from screen difficult. Has a number of health problems but sees them as 'under control' at the moment.

Kiwi: No real restrictions though became ill during study.

Pip: Has a number of health problems but says that she 'has not slowed down yet'.