NOT JUST ANOTHER PENCIL;
COMPUTER-MEDIATED COMMUNICATION
FROM A SENIOR'S POINT OF VIEW

by

ROSALEEN DICKSON, B.A.

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfilment of
the requirements for the degree of
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ABSTRACT

This thesis is journalistic research combined with a memoir based on the author's personal involvement during the past eight years, to demonstrate how our oldest citizens have adapted to, and added value to, computer-mediated communication.

This work hopes to contribute to a better understanding of the use of the Internet by the elderly, an unexpected symbiotic relationship between the World Wide Web and its first senior generation of users, about which there is little other original research or critical examination available.

References herein can be found on the Old Folks at Home on the World Wide Web site, which is an integral part of this thesis, at . <http://www.flora.org/oldfolks/>

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See also the Web site:

Old Folks at Home on the World Wide Web

<http://www.flora.org/oldfolks/>

Chapter I Old Folks

Discovering the World Wide Web and computer-mediated communication has been one more amazing chapter in the lives of this century's oldest generation. Younger people in schools, homes and offices use their computers as a matter of course. Learning how to do this is taken for granted as part of life. Members of the oldest generation, however, have discovered and explored the Internet for themselves while the whole system was undergoing constant change. The medium might have slipped by without their notice, but as it happened, old folks around the world have made themselves right at home on the World Wide Web.

Lorna was alone in the room when I popped in at midnight. I asked her if she was ready for the arrival of Harry, a great good friend from Oregon, whom Lorna had met first online and then in person. They had also met each other's families and had come to an exciting decision. He was to arrive the following day, to live with Lorna for the rest of their lives.

Three words appeared: "Harry is dead."

Stunned, I typed, "Oh no - when? What happened?" and then the story came racing across my screen. He had a heart attack and died that evening while packing for the trip. His daughter found him and phoned Lorna who was now in a state of shock. Alone on a farm in Georgia, far from neighbours, she didn't know

what to do, couldn't think, couldn't go to bed, had automatically turned on her computer and hit Netscape and then 60 plus.

She kept writing, "I don't know what to do."

Persuading her to phone her son, I waited alone in the "room" for her to return. It was one of those unusual moments when nobody else happened to be connected. Lorna said her son couldn't be there until five o'clock the next morning so I stayed up with her all night. Her grief was uncontrollable. It was impossible to get onto any other topic so we spent five hours "talking" about Harry. When Lorna's doorbell rang at ten past five she flew out of the "room" and I went to bed.

The "room" of course was the "60+ chat room" on the World Wide Web, where hundreds of senior citizens meet regularly and discuss everything that touches their lives. There are chat rooms all over the Internet for people with similar interests to share opinions and add to each other's store of knowledge. The special ones for seniors are where they become such close friends that one would sit up all night to help out with another's private grief, though they had never met in person.

This example is not a rare scenario. Helping each other is common for senior citizens on the Internet, in the chat rooms, by e-mail, and through Web sites. Sorrows are shared and so is laughter. In the privacy of each other's virtual company, old people exchange jokes that might be offensive if told by a younger generation. Laughing at one's own frailties and challenges is acceptable among one's peers, while it becomes cruel ageism outside the milieu.

The ease of posting notes, responses, sudden ideas and spontaneous comments in the chat rooms engenders unstructured, laid-back friendliness far beyond what a casual surfer might suspect.

As a rancher in the southeastern corner of Wyoming, Chip Harding has seen a good deal of its history and experienced many of the things that make Wyoming unique. His family homesteaded there nearly a hundred years ago. His Web site opens with:

"I have driven the old Cheyenne to Deadwood Stagecoach with an eight horse hitch, lived in a tipi, trapped beaver in cold mountain streams, and hunted with a muzzle loading rifle. I have talked to my son during Desert Storm via satellite, and now I talk to friends all over the world on this magic box."

When he was a young lad, Harding talked with a Sioux Indian who had been at the Battle of the Little BigHorn when General Custer and his command were killed. Chip rode a horse four miles to a one-room school between neighbouring ranches. There was one other student and one teacher. It was 40 miles to high school and he graduated in a class of 13 students, the largest class in the history of the school, as recorded on Chip Harding's Web site.

Feeling as comfortably at home on the Internet as they did in those one-room schools is common to a growing number of people who don't think being old is an embarrassment, avoidable, reversible, disgraceful, a crime, a disease, or even a social faux pas.

Enjoying the achievement of this significant stage in their lives has included going online and making the most of computer-mediated

communication in all its forms. New Web sites built and maintained by senior citizens appear on the Internet in a steady stream, each for a different reason but always reflecting one common factor: the independent nature of the medium.

There are no inhibiting age-related rules and regulations; no particular mission to fulfill. Participants use whatever skills they have at their command and the neophyte is as welcome in the Internet society as the experienced technician.

Nobody controls what you put on the Internet, or requires you to take anything off, unless you transgress your own particular community's code of morality, in which case somebody will undoubtedly let you know, but there are no cops to call. The Internet is self-governing.

This interesting phenomenon of our times has enriched the lives of those old folks who take it on as an adjunct to their daily routine. "I post, therefore I am" makes sense at any age, and the postings of old folks validate their own assessment of their world and their joy in expressing it.

As with most innovations, the Internet could well become outdated and, eventually, obsolete, along with so many other things we have experienced. As did the party line, the gramophone and the two-dollar bill, the Internet serves its current purpose but nobody my age will be surprised when it is replaced, or simply vanishes.

One might wonder how the Internet could be a unifying force between these older generations and the youngsters who have never known a world without computers, but it actually does work that way.

Though the sociological differences between grandparents and grandchildren today are greater than between today's grandparents and their own grandparents, the Internet enables a meeting that never existed before. While it enables elders to build their own Web based society, it is also open to youth.

In this way, the availability of the Internet makes the elderly netizen valuable to the rest of society. The youth-oriented culture of this century had of late been isolating and undervaluing elders to a great extent. Now that the senior population is making itself known through the common places on the Internet, their own culture can expand, and is once more accessible to youth. The generation gap may have lost its tenure, via the World Wide Web.

The gap, of course, remains, but the Internet is a new span. With the help of carefully prepared seniors' Web sites, youngsters can now find out about a childhood when ocean crossing was by liner, wood warmed our houses, pencils had no erasers. They will come to understand the days when everything was turned by hand, pencil sharpeners, sewing machines, clothes wringers, car engines, meat grinders, axe grinders, telephones and the cream separator. They will converse with people who lived at a time when everyone sat down to breakfast with their own families. They can compare this scenario with the average childhood of today when nobody sharpens anything but just throw it away and buy a new one.

Being defined as elderly has a different meaning for each age group. Folks born in the early 1920s are definitely elderly. Those born in the 1940s often consider themselves to be in the same category because of the changes they, also,

have witnessed. Even for these middle-aged people, the number of innovations in their lifetimes is formidable. They were born before television, penicillin, polio shots, frozen foods, Xerox, contact lenses, disposable diapers and birth control pills. Youngsters who today take all these things for granted, can never fully relate to people who grew up in a world without radar, credit cards, split atoms, laser beams, ball-point pens, pantyhose, dishwashers, clothes dryers, electric blankets, air conditioners, and drip-dry clothes. The endlessness of the list makes the point that these old people actually live in two worlds at the same time, particularly if they have joined the ever-increasing population on the World Wide Web.

Adults long before the moon walking era, they typically got married before they lived together, had never heard of day-care centres, group therapy, nursing homes, FM radio, tape decks, electric typewriters, artificial hearts, yogurt, microwave ovens, TV dinners or even TV for that matter.

Wherever in the world they have spent their lives, today's seniors have much in common. They adapted to all those things that came along to simplify their lives, or to complicate them. As the list went on it inevitably included computers, and then the World Wide Web, where the fastest growing user component is the elderly.

Although the senior population is now the most important new demographic element, this accessibility has come along unexpectedly. The computer network was not designed with this in mind. In fact, it has been identified with youth, the "hip" culture, scientific pursuits and business.

Contrary to the image of a youth-dominated Internet, the elderly are assuming a greater role in their own development and the world's. The more the Internet expands, the more important its senior users will become.

Forces of nature -- declining birthrates and extending life spans -- indicate the growth of more power in the older population. Their expanding use of the Internet is increasing that power. The people who invented the World Wide Web are fast joining this ever-growing, ever-strengthening older generation and are still engaged in its development.

Personal experience in the medium is more dramatic than numbers, but figures prove the point. Estimating how many people are online throughout the world depends on the methods of collection and interpretation of statistics. Surveys abound, using all sorts of measurement parameters. Observing many of the published surveys, NUA Internet Surveys have come up with the educated guess that over 500 billion people were online worldwide in May, 2002. This includes everyone on the Internet, children, people in offices, everyone. There is no way to know how many of these are seniors, but the statistics are nevertheless interesting. The NUA Survey geographical breakdown is as follows:

Canada and US	182.67 million
Latin America	32.99 million
Europe	185.83 million
Africa	6.31 million
Middle East	5.12 million
Asia/Pacific	167.86 million
(including Australia and New Zealand)	

Over a thousand people took part in a survey conducted in 1998 by Richard Denesiuk of SCIP (Seniors Computer Information Project), the Winnipeg based

Creative Retirement Web site. Of the 1067 users who answered the survey 55 per cent (859) were over 55 years of age, 40 per cent (426) over 65, and 7 per cent (78) over 75.

Among the 208 users under 55, 121 were 46 to 55, 69 were 26 to 45, and 18 were under 25, which might be surprising considering that the entire mission and delivery of the SCIP Web site is oriented to senior citizens.

Men made up 68 per cent (728) of the group. As to work, 55 per cent (592) were fully retired, 184 worked part-time, and 278 were still employed full-time.

The distribution survey of this service revealed users in every Canadian province and territory as well as 436 in the US, and 65 in Europe, Asia and elsewhere. The distribution by provinces was: Ontario 205, Manitoba 97, British Columbia 68, Alberta 58, Quebec 36, Nova Scotia 20, Saskatchewan 10, Prince Edward Island 4, New Brunswick 4, Newfoundland and Labrador 2, Yukon 2, and North West Territories 1.

Denesiuk asked his users when they had first used a computer. He found that although 84 had started under the age of 25, there were 142 who were introduced to computers after they were 65 years old, and 22 users who had not begun to use computers until they had passed their 75th birthday.

Of these users, well more than half, 607, had taught themselves how to use computers, 230 had learned on their jobs, 123 had taken a class to learn, and 101 had learned from a friend.

Asked about their primary use of computers, among those surveyed, 463 stated that it was for communication and accessing the Internet, 340 said it was

for word processing, 147 for making spreadsheets and other data bases, 78 for graphics and desk-top publishing, and 22 said they used computers mainly for playing games.

Secondary computer uses were in roughly the same order with 353 for Internet and communications, 354 for word processing, 125 for spreadsheets and databases, 122 for games, and 96 for graphics and desk-top publishing. Among the 1050 users who accessed the Internet, the primary purpose for most, 586, was to go into the World Wide Web. Another 384 mainly used it for e-mail, while the primary purpose for 36 was for usenet and newsgroups, 13 favoured file transfer protocol, and another 31 listed their primary use as "other".

Secondary Internet uses were 486 for e-mail, 361 for World Wide Web, 95 for usenet and newsgroups, 49 for FTP, and 49 listed "other".

Among all the users surveyed, the highest level of formal education for 13 users was less than grade nine, for 92 was grades 9 to 12, for 121 high school graduation, for 263 some community college or university courses, and 570 held community college certificates, university, or college degrees.

Although computers are accessible in various public places, and becoming more and more generally available in schools and colleges, most of the steady users own their own equipment. For this reason, the income of the user becomes a significant factor. In the Manitoba survey, the following findings were recorded.

Only 29 users earned less than \$10,000 a year, 185 earned over \$50,000 and among these, 68 were reported to have annual incomes over \$100,000.

By far the majority of the people on this planet don't have access to the Internet, at least one entire nation, North Korea, bans it altogether, so it is a mistake to imagine that we are all interconnected. Half of the adult population in America does not have Internet access and 57 per cent of non-Internet users have no interest in using the Web. The latest findings from the Pew Internet Project reveal that 32 per cent of those without Internet access said they 'definitely will not' go online in the near future, representing 31 million Americans. Only 12 per cent of non-users said they 'definitely will.' Demographic findings suggest that 87 per cent of those aged 65 and over do not have access to the Internet.

We do know, though, that every day, every hour, new users are connecting, putting up Web sites, and that more and more of them are in the category that NUA calls "Senior Internetizens." Most of the statistics available refer to the US but it is likely they apply equally to Canada.

The over-50s are now the fastest growing part of the US Internet audience, according to The Media Audit. Internet users in this age group grew from 19 per cent of all Internet users in 1997 to 38 per cent of all users in 2000.

The Media Audit considers this demographic group to be valuable to marketers, because it is more affluent than the general population, and the number of over-50s is growing steadily. The Media Audit reports that almost a third of the over-50s with Internet connections have annual incomes higher than US\$50,000, fifty per cent have not yet retired, and close to a third have liquid assets over US\$100,000. Media Audit has also discovered that 47 per cent of these

over-50s also own wireless phones and over 21 per cent have bought something online five or more times in the past year.

Statistics regarding old folks on the Internet are hard to pin down as they change hourly, but still it is interesting to note trends. Back in September, 1997, the most comprehensive survey of Internet users aged 50 and over, carried out by Excite Inc for The Third Age Media Inc, found that 14 per cent of all Internetizens are described as Third Agers.

A report by the Baruch Collete-Harris Poll (1997) states that 19 per cent of Internetizens are 50 or over. A 1998 survey by BC-Harris found that 8 per cent of adults aged 65 and over were online, and this group represented 3 per cent of the total adult online population.

Activmedia's March, 1998 survey shows that senior citizens were one of the fastest growing segments of the online population. Their survey also revealed that older Internetizens believed that the World Wide Web improves relationships.

In August, 1998, NUA declared that Internet users over the age of 55 were highly educated, affluent and had a higher tendency to purchase online than younger surfers.

An October 1998 study, conducted by SeniorInternet and Charles Schwab Inc., found over 13 million US adults over the age of 50 with Internet access and this number was already growing rapidly.

A survey in September, 1999, by Greenfield Online found that 92 per cent of US seniors with Internet access had window-shopped online, while 78 per cent had actually made online purchases.

The Pew Internet & American Life Project Fifteen reports that 15 per cent of US senior citizens are now believed to have Internet access, and 69 per cent of those go online every day. Only 40 per cent of online seniors are women although women outnumber men in that age group by 141 to 100. The majority of new users over the age of 65 in the US now are women.

This US survey has discovered that online seniors are more likely than other seniors to be married, well educated, and have high retirement incomes. Pew also concludes that the number of Internet users in this group is set to rise, as 51 per cent of 50 to 64 year olds now have Internet access.

Among specific interests, music sites apparently have a special attraction for online Americans over 50. A 2002 Media Metrix report finds that 6,811,000 Americans aged 50 and over have visited music-related Web sites in the US. Sites that were popular with the over 50 age group included music-entertainment, online retailers, and multimedia software download sites, with visitor numbers up 92 per cent from 1999.

The number of unique visitors 50 and over to music and entertainment sites specifically has grown from 2,033,000 in June 1999 to 4,703,000 in June 2000. The top sites were Real.com (2,736,000 visitors 50 and over), Windowsmedia.com (966,000), and others like Mp3.com (448,000). Older Americans are also using online music retailers to purchase music. In June 2000, sites like Amazon.com,

Barnesandnoble.com, Buy.com, and Bmgmusicsservice.com were visited by 4,355,000 people over 50 .

Another survey conducted by Btopenworld, reports that going online has become the number one hobby for British pensioners with 83 per cent of seniors in the UK going online on a regular basis. This study indicates that pensioners use the Internet mainly to keep in touch with friends and family, sending an average of four e-mails a day. The Internet is particularly popular with older women, according to the Btopenworld survey findings. Nearly half of female seniors go online for the first time after they retire, and 35 per cent of these say that the Internet has offered them a wider circle of friends.

According to the Btopenworld report, the Internet has also helped older people to feel more comfortable with modern society. Almost two-thirds of "silver surfers" in the UK said they felt more open to new experiences after having been online, while 42 per cent felt they were more tolerant of the way the world was developing.

The BBC Online Network has reported that UK seniors with Internet access claim that being online has strengthened their relationships with their family and friends. New survey results from Age Concern show that older Internet users or "silver surfers" say learning how to use the Internet stimulated their minds and gave them something in common with younger people. Ninety per cent said e-mail was the biggest benefit of going online, and 80 per cent said that going online had been an "empowering and liberating experience."

Over 4 million older people in the UK have Internet access.

A recent report from NetValue states that the number of older people going online in the UK has increased by nearly 90 per cent since 2001. More than two million UK seniors now regularly use the Internet, accounting for 13 per cent of the total home online population. Online banking is particularly appealing to seniors with more than 40 per cent of them regularly banking online. According to NetValue, nearly 25 per cent of all people visiting banking sites in the UK are aged 50 and over.

Spearheading the growth in online banking are the Australian senior Internet users, according to the Market Intelligence Strategy Centre. The number of registered online banking users in Australia almost doubled in the past year to reach 5.23 million at the end of March 2002, up from 2.77 million in 2001. Users aged 50-plus recorded the biggest growth rate of 113 per cent to reach 775,000 for the 12-month period.

All these statistics are already dated but indicate a trend. The aging population, expansion of computer-mediated communication, and the fact that the age of the participant is not apparent on the Internet, indicate hope that the wisdom deficit which afflicts so many aspects of today's society may be diminished. Business can give a man a gold watch and send him off to play golf at 65 and government can kick him out of the Senate at 70 but on the Internet his age is not a factor.

A growing use of the Internet has been "blogging" - a term derived from Web logging. "Blogs" started out as online diaries and have developed into a many faceted genre. There are blogs on every esoteric topic and also many

interesting commentaries on the passing scene. These usually contain links so once they have caught your attention they might hold it for hours as you go surfing with their authors.

Enjoyable as these are to read, the greatest benefit is often to the writer for whom his daily blog may be therapy, catharsis, or simply self assertion. In the hands of skilled and brilliant people, blogs can be more useful than traditional journalism and become valuable sources for their regular readers. Blogging is a way of being published without the interference of an editor or the owner of a newspaper or magazine. This has become a popular means of expression for some elderly people with something interesting and useful to say.

The gap is closed, the thought speaks for itself. Solutions to our most pressing problems will be presented by our wisest and most experienced citizens. The means are provided on the World Wide Web and our elders are preparing to make best use of the facility.

Chapter II The World Wide Web

Who, what, when, where, and why did they do it, and how does this affect the lives of our senior citizens today?

The advent of the World Wide Web was fortuitous for our generation, and because of our avid use, became a potentially valuable resource for generations to come. That, of course, presupposes immortality in the e-world, which is the subject of my final chapter.

In 1945, just before atomic bombs were dropped on Hiroshima and Nagasaki, Dr. Vannevar Bush, U.S. Director of the Office of Scientific Research and Development, published his remarkable article "As We May Think" in The Atlantic Monthly.

Dr. Bush had coordinated the activities of some six thousand leading American scientists in the science of waging war. "As We May Think" was a proposal for these scientists to take on the task of making more accessible their bewildering store of knowledge for non-war purposes.

For years inventions had extended man's physical powers rather than the powers of his mind and Dr. Bush believed that instruments were at hand which could be developed to give man access to and command over the inherited knowledge of the ages. He proposed linking all the world's libraries with all the world's knowledge via a system he called Memex, which could not exist with the

technology of 1945 but which inspired the future creators of the Internet and the World Wide Web.

Twenty years later, in the doomsday, cold war atmosphere of 1964, when the world had discovered what an atomic bomb could do to a civilization, a think tank in California came up with a scheme for diffused communication. The system to be developed must not rely on one central place, which would become a target. If command posts were ever wiped out and every conventional means of contact were disabled, a network would survive only if there could be no central control that a nuclear explosion might attack.

Secrecy shrouded the deliberations of the RAND Corporation created by the U.S. Air Force. Paul Baran was credited with the notion of establishing a computer based network which could operate without a central authority. Every part of the network would be equal in status to all others, each with its own authority to originate, transfer and receive messages. To ensure security, messages were divided into sections with each section addressed separately. Routing was to be random, point to point, messages eventually finding their intended destinations. If part of the network were annihilated, presumably by nuclear attack, the message sections would still proceed helter skelter through the surviving parts of the network.

By 1968 the National Physical Laboratory in Great Britain had built a test network which was then expanded by the Pentagon's Advanced Research Projects Agency. Called ARPANET, it consisted of four computers that could

transfer data on dedicated high-speed transmission lines, programmed remotely so computer facilities could be shared by long-distance.

ARPANET grew quickly. In 1972 researchers were using 37 destinations to collaborate on projects and also to socialize, with personal user accounts, personal e-mail addresses and mailing lists for bulk e-mailing amongst the insiders. Thus was born, unintentionally, the system of electronic mail, which has become the Internet's by far most important application. Development began on the protocol later to be called TCP/IP, developed by a group headed by Vinton Cerf from Stanford and Bob Kahn from DARPA. This new protocol was to allow diverse computer networks to interconnect and communicate with each other.

As the danger of nuclear war lessened, this mysteriously anarchical method of communication metamorphosed into today's Internet. Computers became, as early developers loved to call them, user friendly. As more and more people hooked into the system it became more and more useful. Electronic mail (e-mail) soon overcame snail mail, the term Internet advocates adopted to depict the traditional postal system.

Domains were established to help users find their way around the Internet. These were composed of easily remembered letters to replace the Internet Protocol (IP) addresses, which are strings of digits like a long telephone number.

Business, governments, universities, the military all adopted the system and then came Tim Berners-Lee.

One might imagine that the World Wide Web had evolved over time while people were becoming accustomed to the Internet, the product of collaborating

researchers in universities or scientific laboratories. It could be supposed that whoever invented the system we now all use would have made a fortune from his invention. As it happened, though, one man chose the expression, World Wide Web, invented the hypertext markup language called HTML, and gave them freely to us all.

Tim Berners-Lee was born in London, England, in 1955, the son of mathematicians. His mother and father were part of the team that programmed the commercial stored-program computer, the Manchester University 'Mark I,' in the early 1950s. As a boy, Tim was already excited about the idea that computers could become much more powerful if they could be programmed to link otherwise unconnected information.

In 1976 Berners-Lee graduated in Physics from Oxford. Four years later he was a consultant software engineer at CERN. Various known as Conseil, Centre and Organisation Européen pour la Recherche Nucléaire in Geneva, Switzerland, CERN is now the European Laboratory for Particle Physics, where physicists from all over the world collaborate on complex physics, engineering and information handling projects. The computer program that Berners-Lee wrote for storing his own information was designed to allow people to work together by combining their knowledge in a Web of hypertext documents.

In 1990 Berners-Lee wrote and named the first World Wide Web server and the first hypertext browser, all of which was made available to the world on the Internet the following summer.

Berners-Lee began receiving feedback from Internet users and refined versions were launched in 1994 with the founding of his World Wide Web Consortium at the Massachusetts Institute of Technology (MIT). Now a senior research scientist at the Laboratory for Computer Science at MIT, he is still transforming the system to keep up with the evolution of its usage. In his book "Weaving the Web" published by Harper's, he explains his vision.

"The vision I have for the Web is about anything being potentially connected with anything. It is a vision that provides us with new freedom, and allows us to grow faster than we ever could. . . . it brings the workings of society closer to the workings of our minds."

It is also stated on the cover of his book that his vision of the Web is something much more than a tool for research or communication. It is a new way of thinking and a means to freedom and social growth.

His creation changed the way people do business, entertain themselves, exchange ideas, and socialize with one another. With new online businesses and communities forming every day, the full impact of Berners-Lee's grand scheme has yet to be fully known.

The World Wide Web, as a component of the Internet, came into prominence when the National centre for Super Computing Applications (NCSCA) research team invented Mosaic, the first graphical browser. This made interactivity easy, and allowed the use of still pictures, moving pictures, animations and later sound, all of which was not possible with text-browsers like Lynx.

In 1994 Marc Andreessen and Eric Bina, the team who had designed Mosaic, left NCSCA to inaugurate the popular Netscape browser in Mountain View, California, enabling everyone, not only academics and engineers, to use the Internet.

Vinton Cerf, Robert Kahn, Paul Baran, Tim Berners-Lee, Marc Andreessen and their many collaborators, working in academic environments, may not have realized what a difference their products would make in the lives of a growing senior population which has come to feel at home on the World Wide Web.

The symbiotic relationship between seniors and the Internet dispels any misconception that cyberspace is youth-specific. As computers interact between offices around the world, in schools, universities, and children's bedrooms, parents apprehend perceived dangers while grandparents are comfortably molding their own cyberspace to ever-widening usefulness in the Internet community.

The major downside of Internet use, according to seniors surveyed, was the high cost. To counteract the cost problem, libraries and senior citizens centres increasingly provide computers for public use, along with instructors to help beginners, while acquiring one's own computer has become a popular retirement project.

The value of Internet availability to senior citizens, however, has not always been appreciated. In my 70s, I was a volunteer computer teacher for several years in one of Ottawa's largest senior centres, but the management would not allow the senior computer class access to a phone line. This meant that my students

could only learn to use the computers as word processors, but could not explore the Internet. It was not the elders who resisted modernization but the younger people, presumably trained in social work, but still with a stereotyped view of the elderly.

To gain a voice at the centre I got myself elected to the executive, and subsequently became members' president with a seat on their Board of Directors. I built them a Web site and got e-mail connections to the outside world for the staff, but they were still determined that none of us seniors would be permitted to use the Internet from the centre, a serious frustration for my computer classes. I left the senior centre and went to Toronto to teach Journalism at Ryerson University, a far more rewarding endeavour.

Traps and pitfalls on the Internet being no more onerous than those everywhere else in this dangerous world, old folks who have overcome calamity in all its forms for generations are prepared to go fearlessly forward into cyberspace. Awareness and precaution always on their minds, they are well able to make best use of the medium without letting themselves become prey to its predators.

Addiction has been cited as one of the dangers of this computer age. According to a survey from Websense, one in every four employees surveyed in the US is addicted to the Internet. This, of course, would depend on one's definition of addiction. Employers responding to a poll could deem their staff to be addicted, whereas the Internet-using employees might think otherwise.

In France, according to a survey from the Benchmark Group, 23 per cent of employees use the Internet for personal use for an hour each day, while at work. The US report found that employees spend more than one entire workday each week accessing non-work-related Web sites, the most addictive being shopping, news, pornography, gambling and auction sites.

Employers have means to block employee access to any of these sites, but this entire topic bears little on seniors. If retired people use the Internet a great deal of the time it could be called an addiction but it is more likely a habit, a hobby, or that they are simply interested.

Inappropriate use of the Internet at work has caused dismissal in many cases, but this is still not a problem for seniors using the Internet at their own leisure, in their own homes.

Next to addiction, among the fears of the wary, is the crime of spreading hate on the Internet. The BBC Online Network reports that the number of Web sites promoting violence and racism has risen dramatically since the September 11, 2001 terrorist attacks on the US, according to a study published by the Simon Wiesenthal Center.

There were 3,300 'problematic' Web sites in existence in 2002, up from 2,600 in 2001. Web sites supporting suicide bombers had increased to around 100 since September 11, 2001. As with every site on the World Wide Web, these can be found by anyone, and also can be ignored by anyone.

Racist and violent groups continue to proliferate. They are spreading their messages with games and music and the Internet is being used to create alliances

between different groups who have common hatreds. White supremacists and Islamic extremists are linking up. Whether this use of the Internet attracts seniors is a personal matter.

As the World Wide Web permits and encourages the spread of the wisdom of the elderly, it also provides a platform for their prejudices. Some of our seniors grew up in an era when anti-Semitism and xenophobia were common and were not condemnable. This could cause concern that their presence in the WWW family would encourage, or even possibly engender more hate sites. There is no evidence of this happening but it must be recognized as a possibility.

Wall Street Online, now called the Pristine Day Trader, isn't necessarily a menace, though for some its accessibility could be considered dangerous. There is no clear age distinction among those who trade stocks online, but the over all number is growing apace and it can be assumed that many of these are elderly.

Study, recreation and e-mail are more often the preoccupations of older users. According to a study from the Age Concern, in Britain, most men aged 55 or over go online to search for information or to pursue their hobbies, while most women in the same age category prefer to use the Internet to communicate with close friends and family.

Only when these times become history will the full effect of the Internet on this generation be reckoned. Meanwhile, old folks around the planet who feel right at home on the World Wide Web are enthusiastic about their computers.

Chapter III Exploration and discovery

The WWW becomes a challenge and, for some, a modern day adventure.

Whereas Tim Berners-Lee invented the World Wide Web, the rest of us discover it for ourselves. In 1973, when Carleton University's Dave Sutherland and Jay Weston founded the National Capital Freenet (NCF) and opened it to the general public, I was among the first to come running, fascinated by the concept. Sutherland, the man at the top, was so patient and helpful that even people who didn't know what they were doing were immediately able to connect and use the system. Now top man at Connectivity Partners International, Sutherland says, "The best way to predict the future, is to help invent it."

Another telling quote of the times was "The FreeNet initiative is central to Canada's transition to a knowledge-based democracy and, by extension, to an information-based economy." That was said by Jay Weston who, sitting under a maple tree on the campus one sunny afternoon, helped me persuade myself to enter Carleton's School of Journalism as a graduate student.

For me, in those early days, figuring out how to use e-mail and discussion groups was a matter of trial and error. The first NCF Systems Manager, Ian Allen, the wise wizard from Waterloo University, now a professor at Algonquin College of Applied Arts and Technology in Ottawa, was a great help on our own private chat line sorting sticky problems late at night.

Using NCF during the first few years were students, professors, and other young people around town. From time to time reporters would discover some old folks getting involved and we became token eldergeeks. On several occasions, lights, cameras and microphones were mounted around me by news media to record the seemingly amazing fact that an old woman was capable of manipulating a computer. I used to tell them that anyone who could knit mittens could use a computer, and my favourite metaphor in those days was "it's just another pencil."

Delving into every aspect of the Internet that was available to me, I discovered, very soon, that I was dead wrong. It is NOT just another pencil; in fact computer-mediated communication is so much more than a simple writing machine that it has metamorphosed our entire generation, including the oldest members.

We had started out as readers and listeners, learning from the printed word in prescribed texts, told to believe what we heard. Later we were given choices, but were still on the receiving end with radio, television, and reading material including newspapers of every hue. Never before, though, had we been handed a medium to which we could offer instant written response. Taking part in the process has empowered us all; we have become the tellers, along with being the listeners.

As the months rolled by and my adventures took me far afield via the Internet, it became clear that this medium had lifted us all out of the mode of receiving information, to becoming information providers. Not only did we have

at our fingertips a means of sending our thoughts to anyone, including strangers, literally around the world, but the capacity to think out loud.

Our ideas now could be hurled around the planet as they came to us, even before they were fully formed. The facility of putting words into space brought home the need to think twice before hitting the "send" key. We all suffered the embarrassment of reacting too fast to a challenge, being too quick to criticize, but recovered and adapted, learning as we went along.

Those unaccustomed to writing for publication, found the ease of transmitting anything everywhere by anybody changed some respect they might have had for the computer-mediated word, replacing respect with doubt and skepticism. They discovered that whatever they read anywhere can be proven false a minute later. This, of course, has always applied variously to newspapers, magazines, billboards and books in print, but became even more emphatically true of the medium that will carry random thoughts around the world before they have even been totally thought through, and never need to be substantiated by their authors.

In the early days of the Internet, accommodation of simple personal Web sites was made very attractive, with technical assistance at no charge, on freenets. There were limits to what could be done there and as members acquired smatterings of expertise they would move on to other Internet Providers.

A co-operative community web was established by an early freenetter, Russell McOrmond, using a computer in his flat on Flora Street in Ottawa. He named it Flora, and was soon accommodating an impressive array of not-for-

profit Web sites at no cost to their owners as all were volunteers, taking on various tasks within the Flora concept. This is where I opened the Ask the Doctors site described in a later chapter, which grew to such a size that it was taking me several hours every day to keep up with the correspondence. I also built my own personal Web site on Flora, with genealogy excerpts from a book I had co-authored with my husband, adding the four current generations, University connections, and links to the Web sites of a few special friends and relatives.

As books editor of The Hill Times, I had felt a need for free information about published works on the Internet so I added a Web site called New Canadian and Other Good Books to the Flora collection. Over the years the Web has become overloaded with literary sites but in those days there was little, so I linked to everything there was at the time, and included occasional book reviews.

A large list of other Web sites have been added to the co-operative Flora Community Web, from Auto-Free Ottawa to YMCA-YWCA Canoe Camping. Moved to larger downtown premises, this group maintains its original philosophy of co-operation and worthy causes. It's not an Internet Provider, just a safe friendly host for sites, e-mail, discussion groups and technical services.

Thinking with one's fingertips brings forth a whole new means of expression. Trial balloons are sent up unheralded as such. The ensuing morass of information, misinformation and disinformation could confuse anyone, though somehow those who frequent the Web learn early to discern. After a while it becomes second nature.

From interviews with people I met on the Web I found it to be not just a more efficient medium of personal expression, but, to quote Carleton University's Jan George Frajkor, "a socially and politically transformative medium."

With reference to computer-mediated communication, I quote Marshall McLuhan, even though the Internet had not come into use during his lifetime. I maintain that his basic ideas could be applied to the Internet which he, in his special wisdom, envisioned as clearly as we who have it now in our grasp.

In *Understanding Media*, McLuhan wrote, "Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned. Rapidly, we approach the final phase of the extensions of man - the technological simulation of consciousness, when the creative process of knowing will be collectively and corporately extended to the whole of human society, much as we have already extended our senses and our nerves by the various media."

There is no doubt that the Internet fits into McLuhan's grand schema but there are nuances involved in the actual launching of thoughts over the Internet that even he could not have predicted.

His classic lesson was that it was the medium, itself, which influenced society and not the information and ideas being disseminated. This premise applied to every medium known to him at the time. For McLuhan, printing drove people apart. He contended that with the printed word, they became less dependent on one another and became more introspective, individualistic and self-centred;

that though the printed word was available to all, in the act of using it the reader was alone, reacting to the content in solitude.

As most computer users also are alone at the time of receiving messages, one could assume little difference in the end result of these two media, but with the Internet, immediate response is possible. The reader is not, therefore, completely alone. In a virtual group, he has instant access to the author of what he is reading (unless, of course, it is a quote from some other source) as well as to any other people who may be reading the same material at the same time or who may log in to it later.

McLuhan surely knew that people would thus be interconnected by the Internet, bringing society together globally by breaking down barriers, and that rather than driving men apart, this new form of communication would draw them back into groups once again.

Extending McLuhan's creative process of knowing to the whole of human society isn't here yet, but Internet users worldwide numbered 665 billion in 2002, according to the ETForecasts market research and consulting company. That's not anywhere near everybody, but it's a huge body of individuals.

In the introductory paragraph to his book, McLuhan so aptly described computer-mediated communication that he is a valid participant in any discussion of the Internet today. When he stated that we have extended our central nervous system itself in a global embrace he knew that this new medium would be an extension of both the motor and the receptor nervous systems. On

the Internet we become actors as well as audience, senders and receivers, enormously expanding the role of the user of this medium.

Previous methods of communication had their limitations where the Internet seems to have few. Thought flowing straight from mind to mind without need of words will be another step towards the ideal. For now the Internet comes very close.

The first formal information medium most of us witness, after the initial "one to one" spoken word at our mother's knee, is the printed word. At an early age we are introduced to text, the original "one to many" method of communication; one person writing and many reading. Because of our inventiveness, printed matter has been made available across vast areas. Our civilization has also considered printed matter to be worth preserving and has developed many ways to do this successfully. Archived books, newspapers, documents, research papers and other works have become durable, providing a wide permanent record of the printed word. Print as a means of communication maintains its "one to many" aspect, usually under the control of institutions, universities, publishing houses, government agencies, library boards and archive bureaucracies.

As a medium of authority, print generally involves no interaction, occasional letters to the editor notwithstanding. The reader's participation is limited to visually absorbing and interpreting.

Another major "one to many" medium available to the general public is radio. Long before today's omnipresent cacophony, with radio permeating the

atmosphere non-stop, we had our little home made crystal sets. Copper wire wrapped around an empty oatmeal box would magically bring sound through a tiny bright crystal to earphones, shared so two friends could hear the stuttering, stammering words and scratchy music at the same time.

When we eventually acquired radios with loudspeakers, we would gather around, as was the custom of the day, "watching" the news, music, and dramatic productions in the same way we later watched them on television.

As with print, the radio has been a "one to many" medium. A recent trend towards "talk radio" presents an illusion of listener participation, but total control of who will speak and what will be allowed on air is still in the hands of the radio station, its announcer, its owners, and various regulatory agencies. Other than the unfettered marine radio, amateur short wave and the citizen's band, radio is a one-way medium.

Television is another "one to many" medium. Most powerful because of the impact of split-second action, state-of-the-art photography, colour, animation, and an expensive array of advertising visuals, television's "one to many" message is probably the strongest yet in the western world. Television has branched into phone-in shows, an attempt to rival radio, but as with radio, participation is controlled. The voice of the "many" is limited to their influence on the advertisers but while this affects the entertainment aspects of TV, the news is still very much controlled by the owners.

The most popular "one to one" medium has always been the telephone, familiar for a hundred years as a means to both speak and respond. In our early

telephone experiences, the format could also be "many to many" on rural connections where several neighbours could join in one general conversation. While books, newspapers, radio and television were one-way communicators, we always had the opportunity to express our own opinions on the party line.

The Internet, however, has provided the first and only formalized "many to many" means of communication. London's Hyde Park public gatherings come to mind, where someone has the soap box but everyone within hearing distance also gets to express his opinion. Depending upon whether one is using e-mail, newsgroups, or a site of one's own on the World Wide Web, it's a matter of choice whether the message will go from one to one, from one to many, from many to one, or from many to many. Wide open to the world and indexed by search engines, whatever we post will likely be read by someone, and is accessible to everyone at any later date.

Effective interaction is achieved in the World Wide Web chat rooms where messages and instantaneous responses are posted for anyone who happens to be connected to share.

The availability of these human interactions on the Internet has greatly improved the lifestyles of countless seniors, especially those who are shut-ins and invalids or in retirement homes, whose interactivity with society had been limited almost entirely to being passive recipients.

Of even greater significance is that access to computers enables the older people in our society to influence decisions that require experience, a valuable step towards overcoming an omnipresent wisdom deficit.

Each of the many means of expression available on the Internet allows the sender to transmit thoughts in word form in real time. Fingers on the keyboard, trained to quick response, can hurl an idea into cyberspace before it is fully formed. Thinking on the fly supports the medium's apparent ephemeral quality. The inconsistency is that, though seemingly temporary and inconsequential, the message can be preserved forever if it happens to be picked up by someone's Web site or is on an archived news group.

Whatever can be extrapolated from random e-mail, quickly posted responses to discussion groups, fast repartee in chat rooms and impromptu Web sites, may or may not truly reflect reality. As spontaneity can engender honesty, these fast fed items may be more true to fact than the painfully rehashed and editor-polished words we see in bound books. The jury will never return on that question, as arguments on both sides are disputable.

In a paper entitled "Rationalism, Empiricism, and Virtual Reality," Dr. Peter Wegner, 70, Professor Emeritus in the Department of Computer Science at Brown University, Rhode Island, likens the Internet to the cave in Plato's classic metaphor. He compares humans to cave dwellers who can observe only shadows of reality on the walls of their cave. This expresses the limitations of both people and computers in obtaining knowledge of the external world. The principle here is that projections of external worlds onto input sensors of human and computing agents are incomplete shadows from which the world cannot be reconstructed. Plato's cave is a metaphor for the abstraction that bridges philosophy, natural science, and computer science, according to Professor Wegner.

"Descartes' cogito ergo sum succinctly expresses the rationalist credo that the world can be modeled entirely by non-interactive processes of thought. Algorithms and rationalist models share a commitment to non-interactive modeling as restricted forms of computing that shut out the world while performing computations. They cannot adapt to changes during the process of computation, just as lecturers who read from a prepared non-interactive script cannot adapt to vibes from their audience. The pejorative statement that a person is acting like an automaton means he is executing an algorithm rather than behaving interactively."

Soon after joining the National Capital Freenet, I became a member of its first elected board of directors. Discovering some exclusive for-a-fee seniors' Web clubs in the U.S., I decided to establish a free and all-inclusive special interest group (SIG) for seniors on NCF, open to the world. Obtaining much needed technical advice from Dr. Warren Thorngate, in Carleton University's Psychology Department, I also set up discussion groups for three local newspapers; The Hill Times, the newspaper of Parliament, Ottawa X Press, arts and entertainment weekly, and THE EQUITY, the rural paper of Pontiac County, Quebec.

Using the Internet, even within the limits of what was available at Freenet, was so fascinating, that I decided to make it easier for others to get involved. In 1995, I co-authored a little book, Freenet for the Fun of It, with Internet columnist Pierre Bourque, who went on to build his highly successful NewsWatch Web site. Our expanded edition, published the following year by Stoddart Publishers,

included freenets which had meanwhile been opened to the public all across Canada, the United States, Europe and Australia.

As soon as the World Wide Web came into being, I sought out instructions for Berners-Lee's brilliant hypertext markup language and expedited the launching of Web sites for the three newspapers with which I was affiliated. These were rough early attempts but a groundbreaking undertaking at the time. As their Internet presence has evolved over the years, hundreds of other newspapers around the world have also taken up residence on the World Wide Web, but we were among the first.

For the first Canadian Community Network Conference, held at Carleton University, I organized a news system so groups across Canada could know what was being discussed and decided by their delegates here in Ottawa. It was an experiment in what then was a very new medium, to find out how to provide such a service and to demonstrate its usefulness. We named ourselves "Real Time Online."

Recruiting a team of ten people, mostly from our Seniors Interest Group, we had seven reporters, two translators and a dispatcher. The reporters took notes in rotation, covering every session for the entire three days. They filed their stories on computers provided for our project by the University. Each story was then translated and e-mailed in both official languages to our dispatcher. From his office in the Public Library down town, he redirected the stories immediately to his list of Freenet reps across Canada. This was all happening as the

conference unrolled, so the report of one session would be going out before the next session was over.

Instant feedback was available online from across the country. My expectations about seniors, volunteers, and the Internet, all proved to be correct; Real Time Online was a successful experiment!

Over time, journalism on the Internet has become commonplace, but during those first few years it was a dicey innovation. When the Internet first began to be a part of our daily lives, it was rumoured that newspapers, radio, and television would lose their grip as the main purveyors of news. This was reminiscent of an earlier fear, at the onset of television, that radio would disappear as a consequence. The only news source that noticeably lost prominence to television was the Pathé News which used to bring us to the scene of world events between the feature and the cartoon in movie theatres. The radio broadcast industry's concern with losing listeners followed an earlier concern of the print media, that with radio disseminating news all day it would no longer be necessary to buy a newspaper.

A demonstration television set had been the biggest attraction at the 1939 World's Fair in New York City. Having bicycled down to the Fair from Montreal we could hardly believe our eyes when, pedaling past the display, we saw ourselves on the little oval screen. Ten years later approximately one million Americans had television sets in their homes. The future of radio has frequently been considered tenuous. By 1948, Harold Wolff wrote in *The New Republic* that most experts were predicting television would "knock the pins out from under

radio." Radio did not go away, it just regrouped, adapting to the new competition with top-40 music and news-talk formats, local news and community involvement replacing distant network programs.

When television leaped into the business of seeking and disseminating news, newspapers and magazines felt endangered. They, too, have survived, still playing a distinct role in our daily lives. People who get the paper only to do the crossword puzzles can now do them online, though this method is not as convenient as the traditional pen on paper. Some of the other reasons for reading a newspaper, such as stock quotations, sports, classified ads, the comics, headline news and even in-depth news coverage, can also be accommodated easily online.

Despite all this, newspapers survive, even though regular radio listeners and TV watchers know all the news before the paper arrives at the door. For some people, especially those who grew up before electronic media, the news becomes real only when they see it in print. "When I read it in THE EQUITY I know it really happened," is a frequently heard accolade around Pontiac County, Quebec. Community newspaper readers are loyal and the responsibility of editors and publishers is awesome. As editor of THE EQUITY for 32 years, I was also reading County news over the radio in Hull, Ottawa, Renfrew, Pembroke and Fort Coulonge, and producing regular TV shows about County affairs, but the local news always needed to be validated by appearing on the pages of the newspaper.

While radio, television and the newspapers have adapted to the presence of the Internet, the postal service has also made a few changes. Canada Post Corporation has inaugurated epost in partnership with the Bank of Montreal and TELUS Corporation. Recognizing that changing environments require changing solutions, they created an electronic mailbox where customers can receive and pay their bills from a growing list of companies. Such friendly interactivity, a simple thing like paying a bill, enables people with ailments or disabilities to regain charge of themselves instead of relying on others. For some of the old people who had lost this autonomy, such a simple solution can bring a significant improvement in the quality of their lives.

Internet services also evolve continually as innovations are brought into the system. Dominating in the fields of correspondence and information retrieval, the Internet has also been taken on by commerce in a big way. Old established companies and new made-for-the-Net ones offer products and services using secure access systems. Buying, selling, banking, trading, and bidding are all available on the Internet, along with dating, betting, gambling, counseling and new services every day as the potential uses of the Internet multiply.

Dissemination of news on the Internet will expand as other mass media continue the trend to diminish their local neighbourhood services. As long as it is still possible for individuals to post what they see, the opportunity for an unofficial, unprofessional type of journalism will flourish. As long as authenticity of sources can not be assured, computer mediated news will always be suspect,

but the Internet will also continue to carry stories initiated by conventional media.

Differentiating is the responsibility of the reader.

Awareness of who writes and who controls the news will always determine what we will trust. Technological changes happen with great speed, so one's loyalty can change overnight. As new competitors enter the market, the Internet will need to adapt, as have newspapers, radio and television, and many of the old folks of today will still be around to help determine and witness what happens next.

Some of the senior netters engage in extensive blogging, which is a popular means of opening up and dealing with topics of specific interest. A blog, contraction of "Web log" is, as Canadian futurist Fred Thompson explains in his own Web site, "the daily or periodic personal musings of the author."

As readers respond and links are attached, a blog becomes a stream of information on whatever topic is of particular interest to the participants. Blogs can be prime sources of news and information, rivaling any other medium, depending on who contributes. The elderly, with their collective institutional memory and vast experience, are eminently qualified bloggers.

Journalism has come through substantial changes, and not only because of the means of presentation. Corporate proprietorship of mass media has shifted allegiance of news writers from the community being served to the financial requirements of absentee owners. This has profoundly affected news content and opinions expressed in magazines, newspapers, radio and television. Though the

While the Internet was growing in leaps and bounds, so did a steady stream of concerned citizens trying to control, plan, and regulate. These were the worriers who, when addressing conferences, could not get through a sentence without using the catch-phrase, "information super highway."

The thinking seemed to be that the use of the Internet was, in and of itself, a threat that could go out of control and destroy the world if not properly managed. Along with the good and the useful, the evil and the awful seemed to be too dangerously accessible.

As children in the 1920s, our first attempts at writing were on little wood-framed slates. From there we progressed through lead pencils and paper, pens with steel nibs and ink that stained our fingers and our pinafores, fountain pens with leaky rubber bulbs that were forever getting clogged, the ball point phenomenon, typewriters, manual and then electric, followed by a series of word processors.

In the business of printing and publishing, word processors are now a part of daily life, but there were times when staying on the cutting edge of the industry required the use of machinery that became obsolete before it had been paid for. First to replace handset monotype was Mergenthaler's ubiquitous Linotype monster that formed molten lead into each individual line of type. Then, when printing moved into its offset mode, there were those big blue Compuwriter dinosaurs on which we also typed blind, with still no screen to view our work in progress. Machines resembling today's computers came and went and when modems were introduced, we linked our 'puters together.

Cyberelders have adopted this medium, not as a technological challenge, but to share lifetimes of intelligence. With their peers, they also use it to exchange advice, converse, maintain health and finances, enjoy travel and adventure, care for and support one another, add infinite substance through volunteer activities, e-mail, and other online interaction.

Some alarmist notions are still expressed. The following e-mail came from a marketing company in British Columbia, Canada:

"Never before has the world seen anything like it. Not since the Industrial Revolution has there been so profound a transformation of the very fabric of our society. We're talking, of course, about the Internet - the global network of computers that has revolutionized the way people work, play and do business. Since 1993 - propelled by the phenomenon of the World Wide Web - the growth of the Internet has accelerated dramatically, doubling in size approximately every six months."

Well into 1997, several years after the Internet had already become part of our daily lives, and as familiar to many as the telephone, we were still being warned about a profound transformation. This transformation had actually taken place two or three years previously, and it hadn't yet seemed to me to be all that profound. I found the Internet to be interesting and useful. Fearful folk were perpetuating the notion that it had extra powers while I was trying to use it sensibly in a relaxed, intelligent manner, still to discover these extra powers.

New industries emerged to accommodate the demand for commercial Web sites. Thousands of vendors all over the world commenced to sell Internet access

and Web page design. Anyone could hire one of these experts, though I felt it would be unwise to let them take over entirely. I still believe control of content should be kept in the hands of the Web site owner, not the Web master. Ideally, this should be the same person because whether it is an organization or an individual being represented on the Web, the site should not primarily be an advertisement for someone else's expertise. The value of having experienced people provide information could be lost if the entire project is taken over by clever youngsters.

In their third 1997 edition, SIGMA, the quarterly magazine of European Statisticians of the United Nations Economic Commission, published the main points of an address I had made at their annual convention, entitled Making Your World Wide Web site Worthwhile. I was surprised and considered it rather forward-looking on the part of UNEC to engage a 76-year-old woman for advice on practical Web site building and of course they were surprised as well. The arrangement had been made online, resulting from the recommendation of people who had read my book and had seen the daily updated Web site I built and maintain for the National Press Club of Canada. As more seniors take part in the World Wide Web, this recognition of the value of experience, regardless of hair colour and agility on skates, will become standard.

Although at that time few old people were engaged in this pursuit, seniors putting up their own Web sites on the Internet are now no longer an oddity. A few are noted in the following chapter and many more can be accessed through

the Old Folks at Home on the World Wide Web site, which is also linked to everything else in this book.

Giving advice was beginning to be a habit because in 1996 I started writing advice for Richard Denesiuk, manager of SCIP, the Winnipeg based Creative Retirement Web site. A page in his Web site, which he calls "Ask Great Granny," attracts letters from around the world, mostly Canada, the U.S., and U.K. The original intent was to deal only with intergenerational problems but the spectrum soon widened to include every conceivable subject. Most of the correspondents are having trouble with daughters-in-law or mothers-in-law, but there are also questions about how to deal with difficult spouses, girlfriends, boyfriends, children, siblings, parents, grandparents, bosses, employees, students, teachers and even next door neighbours.

"Dear Great Granny.

"I have a mother in law who lives with me, my husband, stepdaughter and my niece. We just adopted a 4 month old infant. We got our bundle of joy 3 weeks ago and I work

fulltime and want to spend every moment that I have with him. My mother in law, from the very beginning, was not exactly behind our adoption, but since our son is here wants to spend her own personal time bonding with him. I don't want someone else taking care of my son when I am home and don't want to leave the house so they can spend time alone together. My husband says I am being unreasonable. I told him I don't have a problem if she wants to hold him, but I don't feel I should have to leave for a couple hours for her to spend time

with him. To me, I am just worried about the bonding and want him to recognize me as his "mother" since he just getting use to everyone. I am just confused and don't know if I am just being bitter since she didn't ! really support the adoption. Plus I look forward to taking care of my son when I get home...Please advise.

First time mother."

"Dear first time mother,

"Enjoy every minute you are with your new son and don't worry one bit about your mother in law spending time with him. As time goes on you'll be so glad that she is able to help and take over when needed.

"As for this 'bonding' thing - that's just a word in some boo that has taken on a meaning that is not real. Forget you ever heard the term. Your son will know who his mother is. Teach him to say Mama. And teach him to say Granny - that's all there is to it.

"Talk with him a lot when you are with him. Read to him and sing to him, and listen to his gurgles as if he was saying something to you.

"Pick him up when he cries. Feed him or change him so he'll be comfortable.

"Don't let anyone else tell you how to care for your baby,

"Try very hard not to tell your mother in law what to do because she probably knows even more than you do.

"Just be patient and do whatever you possibly can do to make that home a happy and cooperative one.

"Since you've decided to bring another child into your home, you owe him a happy home. He will be doubly well cared for with you AND your mother in law, AND those two big sisters - what a lucky little boy he is.

"Talk with them all a lot about keeping the house happy and cheerful so the baby will grow up well adjusted.

"Be the captain of the ship - don't be bossy, but be appreciative of all the help you can get.

"You're in charge but it doesn't mean they all have to do everything your way. Show by example what you think a mother should be to a baby - they'll get the idea and follow your lead.

"For goodness sake don't start counting the hours that you are with him, and others are with him. Truly - it doesn't make any difference.

"GG"

Thus far, in eight years, no two queries have been identical and the need for advice from an independent, understanding great granny continues. The SCIP project has grown, changing format with the times, but the same interpersonal questions keep coming to Ask Great Granny, and I answer them all.

Through this volunteer service I have especially recognized the extra powers of computer-mediated communication. While reading a long description of someone's terrible struggles with relatives or other people in their lives, my subconscious mind races away through my own four score years of experience. Before I am aware of how the sentences will end, my fingers start putting down

words of solace, advice or encouragement. When I read over what is there, to check the spelling, grammar and syntax, I am stunned to see how accurately these answers apply to each individual's needs.

"Dear Great Granny, HELP!

"I need some good advice for my wonderful daughter-in-law...she is asking me. What time should a 5 year old boy be in bed at night? Also, how does she keep him from hitting, balking, having screaming fits when told 'no', and generally being generally disrespectful to her and his peers.

"He also gets up in the night and comes in their bed. She doesn't want him there, but my son is allowing him to come in to go back to sleep and then my son moves to his son's bed.

"Should she talk and explain why he shouldn't be doing things or what? She also is coping with an 18 month old son.

" You may prevent child abuse (only joking...these children are loved and adored by everyone in the family....maybe too much?) by helping us out here. Thank you and God give you sufficient wisdom to continue your good work.

"E.R."

"Dear E.R.

"First rule for survival of family is for mother in law to stay out of the bedrooms of her daughters in law. Nothing you can tell her about her child will help. Whatever you say will be considered to be criticism so let her solve her own problems.

" That you have gone through it all many years ago and have all the right answers matters not; all that matters is that she and your son must find out for themselves without being told.

"Hitting, balking and screaming sounds like they are trying to impose their own time schedule on the child. If they are puttin> him to bed because THEY are tired, it will never work.

"Eventually they will discover that putting him to bed when HE is tired makes more sense to him, and will also give them a more peaceful evening. As for which bed he falls asleep in, that's of no consequence. If his mother doesn't want him in her bed but his father does, then they have something to discuss. Hopefully it won't become a major battle; nothing could be worse for the> child than to have his parents fighting about him.

"As you say she is "coping" with an 18 month old son, this suggests that she's not enjoying motherhood. That's tragic.>

"There's no law about what time a 5 year old should be in bed. It all depends on the individual child. If he is afraid, sometimes a reason why they want to sleep with their parents, having a quiet time of reading before sleeping might help. Try letting him just poke around with his toys after supper until he is very tired. Then get out the book and let him read the words he recognizes as you go through a familiar story.

"If he is disrespectful to his his peers this is normal. Little boys don't know much about respect at that age. Make sure he never hears any of his elders showing disrespect to anyone at all. If you can't say something nice don't say

anything at all - is good advice at any age. Your son should be starting to build a good relationship between his two sons. It is never too early to establish a feeling of brotherhood.

" All the above discussion is simply there to help you think about their situation but the most important advice anyone could ever give a mother in law is, stay out of it.

"GG"

"Great Granny, you have my undying admiration for your OBVIOUS advice. Didn't I already know to keep my nose out of my children's business? Of course. Was I doing that? NO! She's a smart girl and so is my son. You're absolutely right.

"They will have to figure out what to do just like I did and make THEIR own mistakes to learn. I taught Middle School kids for 25 years. You'd think I had learned somethings by now. You're a dear. I needed to be busy with my life anyway.

"E.R."

Not always that easy to take, the advice that comes to me to pass along nevertheless seems to be sound. In all these years only two people have written back in anger saying I didn't understand them, while I have a steady stream of responses from people who are genuinely thankful.

Looking back through old files to read some previous answers I'm always surprised. What is there doesn't seem to be my work. Not suggesting anything mysterious or paranormal about this phenomenon, it nevertheless is obvious the medium permits a facility that is not manifested by any other means known to me. It is definitely not the computer doing the thinking, it is just a more empowered me. Where McLuhan might infer that the medium has a voice, I would differ. The medium is not the message, but when it enables me, the message, though unleashed by this thought-releasing medium, is still mine.

The experience of writing from the gut, without deliberately thinking, opened my mind to another facet of the Internet. This medium was actually enabling me to be wiser than I knew. Responses to my letters startled me. People say I read their minds and that I have "seen" them so clearly.

All this appreciation is flattering but would not likely be engendered by a letter written slowly on paper. If I were to study the problem at hand and try to think through all the possible means of dealing with it, processing my thoughts through the usual good writing techniques I have studied and taught, the spirit of my response would be gone. The only way I can propose a solution to these people's problems is to put it down quickly and send it immediately, so they'll have help when they need it. They invariably appreciate the speed with which I speak to their conditions.

Inspiration does come from experience, giving credence to Richard Denesiuk's notion that a great grandmother qualifies for the task, and this automatic writing has nothing to do with demons, ghosts, possession or anything otherworldly. In

fact, in my case, it is utterly this worldly. The machine at my fingertips is equipped to deliver random thoughts instantly. Reading of a person's difficulties brings to mind similar scenarios in my own previous knowledge, so I'm actually living through it with the person who wrote the letter to Great Granny. Usually, my automatic response includes several possible solutions.

Neither my answers, nor the letters I receive would be written using any other medium. Private life stories and detailed intimate problems can apparently be poured into e-mail to a fictitious "great granny" figure which would never be revealed using pen and ink. The writers of these letters doubtless find themselves in the same almost automatic writing mode as I do when tackling the responses.

Also swept away by imaginative word-smithing on the Internet, cyber pals find their fingers spelling out things they would never say to one another in person. It is possible to find out more about friends known only through e-mail correspondence, than friends who can be seen and touched. Words on the screen become the means of transforming the virtual into the actual.

When I first discovered this was happening, it strengthened my realization that the Internet is indeed much more than just another pencil. There is a new dimension of freedom engendered on the Internet. Reading what my peers were doing on the World Wide Web has made this phenomenon even more obvious.

Still in its formative years, the Internet and all its attending paraphernalia, constantly change. Everything involved is obsolete by the time a person has figured out how to use it. It's possible to stay grounded on the Web with old

equipment but the trend is to upgrade but when every aspect of computer-mediated communication has moved on to another level, the experience of its users will still be paramount in any value it can bring.

However trivial, tentative and experimental may seem the uses being made of the Internet at present, there are benefits to be tallied. One large legacy of these first years is the opening of access to the wisdom of an older generation, which was in danger of going out of style, for all the wrong reasons.

Chapter IV Seniors Online

How are the old folks using this amazing medium?

Each person has his or her own definition of what a senior is. Age varies with every survey, but old folks know who they are and that's sufficient. To say everyone over 65 is a senior leaves out a lot of people who have retired from their usual work and consider themselves to be senior citizens as early as 50.

Those of us who were adults during the Second World War share a "been there, done that, and still interested" point of view and there's no doubt we are old, though there are still those who insist they aren't. In fact, we keep discovering people who pretend they are young and think that seeming to be young is essential. The expression "young at heart" presupposes that it's preferable to being "old at heart". A popular magazine previously called "Seniors" delivered a similar message when it suddenly became "Forever Young".

Despite all this adoration of youth, and despite the renewed global turmoil, this time of life is still interesting for the online seniors. Even if osteoporosis, Parkinson's, arthritis, thrombosis, cancer or stroke come along to make it more difficult, they can still get around on the Internet. That's where the reciprocal benefits come into play.

Online means accessing the Internet. This includes private e-mail, chat rooms, all the Web sites and newsgroups maintained in places where anyone in the world can read them.

The Internet consists of individual computers connected by cable or phone line to a local area network (LAN) which is connected by routers to one or more wide area networks (WAN). Using cables, telephone wires, satellite links, fiber optics and microwaves the WAN is connected to backbones of the same which crisscross the civilized world. Maps of these Internet backbones are available on the Internet for any interested person to study. At first glance they appear to be in total disarray but are actually so established that if one backbone breaks down, for any reason, others will come into use.

Being online means using, or contributing to, the content of information conveyed by means of this complex computer-mediated communication system. Needing no special insights into the complexities of how it works, we are privileged to be able to leave these details to technicians while we just enjoy the results.

Using e-mail is a snap; anyone can do it. As for putting up Web sites, all it requires is a basic knowledge of hyper text markup language (HTML), which seems not to present too much of a challenge. It's just a matter of writing down instructions between angle brackets to determine text size, colour, style and position. Beyond that, there are hyper links that are as easy to learn as reading a road map.

Some folks use Web editors or fit their Web sites into preset templates that are found all over the Internet, but those who have mastered all the other methods of communication over a long lifetime can usually adapt to HTML.

Rony Aoun, a young computer student at Carleton, explained it to me one evening after which we published HTML the Basic Book for people who would rather do it than read about it. This little primer has been sold in Ottawa computer stores, used in the High Schools, and is still available on the Internet.

Senior netters tend to set their own boundaries where their interactions with the Internet are concerned. They belong, individually, to all sorts of boards and organizations and may have moved mountains in earlier years, but these affiliations do not control their Web activities. The freedom of the Internet has no racial, religious, professional, age or national borders. The Internet community brings like-minded people together unhindered.

The old folks we find to be most at home on the Internet are also at ease with one another. Common experiences of this group put them all in the same category of having lived in several worlds in one lifetime. The development of computer mediated communication expands our common horizons, providing our generation, even those who are housebound, with a means of taking part in a world community.

With telephones we can always talk with our friends and neighbours if and when they are at home. With print, radio and television we read about, listen to and watch the world as it is presented to us. With the Internet we participate in our own time at our own speed.

Though the Internet constituency is an extremely small portion of the world's total population, as other media feed off the Internet it has become a primary source of news and information. Corresponding by e-mail with hundreds of my

peers for almost ten years, I have asked many of them how the Internet has changed their lives. They reply variously. The following interjection, in italics, and similar quotes throughout this chapter, have been received from seniors who use the Internet. Those who wrote these remarks will recognize them although the names and locations are often changed, or omitted, to protect their privacy.

"Four years ago my youngest son gave me a computer. I knew absolutely nothing about a computer or the net. It was overwhelming at first. Then I began to learn a little more each day until I could travel all over the world and never leave my chair. I would stare in amazement at this window to the world and knew I possessed a freedom I had never known before.

"Then, I found the chat room and begin to make friends. Since this was a new adventure for me I had to learn a whole new way of communicating with others. I didn't know how to type or spell and I knew if I wanted to chat I would need to learn. It influenced and encouraged me to go back to school.

"I now have my diploma and have the computer to thank for my accomplishment. I doubt seriously that I would have ever gone back to school without the desire to chat and make friends on the Internet.

"I have raised six children and have thirteen grandchildren. I have been married to a wonderful man for thirty three years. I wouldn't take anything for my experience with the computer and net. It has brought me a lifelong freedom I will enjoy for many years to come. I will be able to teach my grandchildren and encourage them toward a higher education."

Senior citizens tend to maintain distinct priorities, taking a different overview of most matters, including public affairs. With the advantage of a peculiar wisdom only achieved by experience, they do not always agree with popular, media-driven, opinions. This would seem trivial were it not for the fact that with each passing year their numbers increase until now seniors represent a huge proportion of the population. Because we live longer and families are smaller than they used to be, the senior view will soon become the majority view.

The current minimal representation of elderly people in government and management accounts for the wisdom deficit among those decision-making bodies, which arbitrarily dismiss members on predetermined birth dates. The Internet, however, has become a perpetual two-way channel for senior expression as well as edification.

Though often called "third agers," pejoratively akin to the now defunct label "third world," the elderly people who use the Internet for socializing, learning and teaching are the fastest developing demographic group on the World Wide Web.

"I am 64, a widow for 7 years, have 2 children, 3 grandchildren. I have a master's degree in Adult and Community Education and spent most of my career teaching in the area of adult literacy and basic education. At present I teach occasional classes in study skills through the University. The Internet has had an enormous impact on my life by opening it to experiences and possibilities I never would have dreamed of just a few years ago. I would say the greatest influences have been e-mail and the chat rooms."

Following my request for opinions of old folks using the Internet for friendly contact around the world, the responses flooded into my mailbox, and still do. The following respondent emphasized that perseverance pays off, and that this age group appreciates the old fashioned virtues of courtesy and respect.

"Being older meant having a good degree of perseverance and little by little I got acquainted with operating the darned thing. On my early server, I made a lot of friends and acquaintances with whom the hours flowed by. Some became serious friends in spite of the slow pace of any operating system in the early days. After a couple of computer upgrades, I blundered into a chat room for people of my age or generally retirees. More friends, more pals. The older folks had the grand gift of treating each other with great courtesy and respect."

Most of the respondents were women, but this next was another gentleman who was very methodical with the classification of his contacts.

"I am a communicator, and the Internet has expanded my horizons in that field. Through message boards, mature chat rooms, and e-mail, I have increased my number of friends since I got the computer four years ago. The 2,000 new friends reside in 43 countries, and their ages range from 6 to 96. Prior to discovering cyberspace, I employed amateur radio since the age of 13. But the computer is a much broader social spectrum, requiring no cumbersome antenna, no license, and there is no fading or static. It is visual as well as verbal."

The Internet industry has recognized the significance of seniors on the net for the past few years. In June 1998, Microsoft set up one of its largest corporate exhibits at an American Association of Retired Persons convention, highlighting

the computer industry's new interest in the elderly. NUA researchers had been warning that marketers who fail to recognize the growing convergence of seniors online were missing out on one of the Internet's fastest growing groups.

"My horizon is now so broad and the variety of friends so enjoyable that my life has changed forever. I'm hoping to keep meeting them face to face but even if I can't move from my house I can talk to people in many countries. I am never lonely -- if I feel blue, I just log on and chat. I can get sympathy, recipes, gossip, world affairs and help with my computer problems. I just log on to the World Wide Web, check the NASA site for Astronomy pic of the day regularly and of course -- the horoscopes."

Not many people set up Web sites for their dogs, but this Ontario woman did just that, having already organized sites for her family and her church.

"I first became interested in the Internet in March of 1996 and the driving force for this was my interest in genealogy. Shortly after getting connected to the net I stumbled upon the WBS genealogy chat, I chatted there for a few months, long hours every day.

"Everything I know about the Internet and home pages has either been taught to me by my Internet friends or garnered by myself because of something I wanted to be able to do. At one time I even tutored at www.puter-school.com.

"I've spent many hours on the Internet, probably too many, because I find it just so interesting and informative, I don't spend quite as many hours a day though as I did in the beginning. I have done four home pages: my genealogy

page, my personal page, a page for our church and one for our new schnauzer pup, just because the opportunity was there."

Senior netizens learn and then they teach:

"I have just completed a BTh degree at one of the Australian universities and I did quite a bit of research on the net. As yet I haven't made myself a Web page, partly because I don't seem to have the time. I tend to come onto the net twice a day for short periods, 50 minutes or less.

"One extra thing that I have used the net a lot for in the past, is the chat rooms. I have made some very nice friends, whom I will probably never see, in the chat rooms. My bookmark file seems full so there must be a lot more things that I do.

"I also use the net when necessary to get information for some young friends who are doing projects at their local school. Because of my commitment to the Internet, once a week I teach at our local library. I have chosen to teach people of my own age group as I believe that as a communication device, the Internet is really what I thought the global village was all about. It is my earnest intent to have as many old people computer literate, especially with e-mail and the Internet as is possible".

Most of the old folks with active Web sites also provide various valuable services. Volunteering their skills, talents, and time, some elderly netters are putting up sites for non-profit organizations, churches, lodges, and other useful endeavours.

Mary lives way out in a rural area of Virginia and retirement was very hard for her to get used to, mostly due to a lack of social stimulation.

"Getting connected to the Internet really helped me immensely as far as getting acclimated to my new lifestyle. It provided me with endless research resources for anything I found interesting. It made it possible for me to chat with my children who are scattered around the country. I actually found that I talked with them much more with impromptu chats on ICQ whenever we found ourselves online at the same time. Now, I haven't the least idea what I'd do without it. Having never been a big TV fan, I find it great that I have at my fingertips the resources to look up whatever I find interesting."

ICQ (I seek you) is a system where people can make instantaneous contact with any other ICQ user who happens to be online at the same time. Whoever is on ICQ can be "seen" to be there by anyone else, so it's a very exposed situation but countless seniors take advantage of the quick and easy contact it provides.

Jean has fibromyalgia and on days when she is out of commission she finds her computer connection to the Internet a blessing.

"I have used the Internet for chatting, for looking up medical info, for shopping, for writing poetry, and keeping in touch with other friends who sometimes are out of commission."

Her family is also delighted that she has such a great resource to occupy her time.

Sue was 76 years of age when her husband suddenly passed away. Her children decided, in their wisdom, to present her with a computer.

"They thought, seeing they and their children were avid computer users, I should join the throng. So one day, when I returned home from shopping, there was my computer, all ready for whatever I fancied. My 13-year-old granddaughter was all too ready to induct me into the mysteries of cyberspace.

"One of the main reasons for my children's decision was that they thought it would be great if I could be in e-mail contact with them daily, if I liked. Two of my children live oceans away and indeed, this is a wonderful way for us to keep in contact and get to know our very latest news almost as it happens. That, of course, is the main use I make of the Internet.

"Then there is ICQ. I make use of it at least once or twice per day. As the years progressed I accumulated a large list of contacts. Most of my chatfriends on ICQ come from the States or Canada but I make a particular point of fostering ICQ users in my country, Australia. I also chat with people in Israel, Denmark, Norway, Switzerland, Wales and the United Kingdom. I think that all of these contacts, I actually could call them friends, are aged 50 plus, many are 60 plus and a few are over 70 years of age, like me.

"And then, of course, there are games to play. Most of these, such as the bridge program, do not necessitate the Internet, although it is possible to play it with people all over the world, should I choose to do so. And yes, I do surf the net for information also whenever required. And I send greeting cards on occasion." A grandfather in Maine states the Internet has so many aspects that it is really difficult to define. He and his wife both use it but diverge in the application. She is the chat person, while his chatting is limited. She keeps him

up to date and they share many friends through this medium. He finds his usage is a continuing dialog with old friends from his military service, and they are all over the map.

"Other friends such as our old golf foursome, one who winters in Hawaii, golfing, one in Florida walking the beach, and one at Sugar Loaf Mt, still working in Maine and skiing. The Florida and Hawaii folks come back to Maine in the more moderate seasons. I also use the Internet professionally.

"I do mediation for the courts in York and Cumberland Counties. It is a devise by the State Legislature for Alternate Dispute Resolution which mandates mediation where appropriate. There are four areas, Family Disputes divorce etc., Small Claims, Civil and Real Estate. I do the first two only. This medium (the Internet) is my scheduling contact with the courts. I don't think man (generic) has ever devised anything to rival this. And it has just begun. Where will it go?"

A retired teacher lists his various uses of the Internet, which he claims is an absolute essential to him at this stage of his life and makes his life more palatable. Here is his even dozen:

- "1. Storage sites for family photos, Travel, Sierra Club Hikes.
2. Investments which I tally daily.
3. Various sites offer reminder calendars, which I utilize.
4. Greeting cards of all kinds. I use them all.
5. Many music storage sites.
6. Chat rooms provide me with quite a bit of enjoyment.

7. All the search engines are of inestimable value.
8. All my family members are on ICQ. Can't live without it.
9. I love to play bridge online.
10. Travel information essential.
11. Medicine and medical information.
12. Technical support and downloads by the hundreds."

A retired radio announcer now living in Florida uses the Internet to check his daily hometown newspaper for news of his old neighbourhood. He also uses the Internet as a shortcut to the latest national news and the daily stock market information.

"Basically, the Internet has given me more time for all my activities, which are numerous. I spend no more than two hours per day online and in most cases, less."

In his 70s, an engineer from Alaska discovered friendly and enjoyable people in the 60+chat room, including a mate for life.

"In early 1999 in this room I met a nice lady and we began to chat on ICQ. We met face to face in March 1999 at the 60+ group meeting in Las Vegas. We are now great friends and lovers though we live 1500 miles apart. We get together several times a year and last October we went to the 60+ group meeting in Nashville and then to the 60+ in Las Vegas the following year.

"I also run a joke list on the Internet for anyone interested in about 20 jokes a week - some a bit risqué but no really raunchy ones.

"For seniors and the handicapped the Internet is great. As I was in the computer business before I retired I now service computers free for seniors and handicapped people."

When sixty people over sixty who had never seen each other before gathered at a Las Vegas hotel for a weekend of fun, a bond had obviously existed among them before the reunion. The virtual bond had come about in cyberspace, which was as real as a tea party or an evening at a pub to the Internet society.

The holiday event included people in wheelchairs and some whose arthritis and osteoporosis complicated their getting around. Several were very deaf, and sight impairment was not uncommon but all these annoyances meant nothing to the gang. Most were hale and hearty, dancing, singing karaoke and seeing the sights. They had been connecting with one another for months, sometimes years, on the Internet, and this was their first time to get together face to face.

Home again, from the grand adventure, everyone was so enthusiastic that another reunion was already in the plans; next time for Florida, and there would be hundreds attending. Many would be crossing international borders and some even flying across oceans once more to take part.

Gatherings of this sort, among people who meet on the Internet, and the permanent bonds frequently made among them, have become so commonplace now that they are no longer newsworthy.

How do people form such strong friendships, unseen, and only in fragmented phrases seen on a small screen? Well, it happens.

The Internet doesn't strike everyone in the same way. This lady in the Maritimes has her own interesting view.

"When the first 60+ chat room closed down and changed locations, with new people involved, I had quit going into it for a variety of reasons. It wasn't the same for me any more. As I reflect on that particular change in my life, I believe that the combination of personalities had been the attraction for me. And when that combination was no longer there, my interest lagged. That's what I believe happened, but perhaps, as in other times and areas of my life, I no longer had that particular need.

"The real reasons for the paths our lives take are not always as obvious as we like to think. I haven't used the Internet much for reasons other than the chat. On occasion, I've searched for information in needed areas. I've ordered a few books from Amazon.com, but I wouldn't say the Internet business community will get rich from me. I enjoy the instant communication that e-mail offers me. In fact, I have little patience for the postal service. It's just too slow to suit me. Now, if I could just get the people I like to correspond with to get online everything would be just dandy!

"The only get-together that I've attended was the one in Maine in October of 1998. Last April, my husband and I took a trip with our 5th wheel to Texas and New Mexico. We spent the better part of a week with friends we had met on the Internet, then spent nearly 3 weeks traveling through New Mexico with them. There we met 8 or 9 of the other 60+ chatters.

"From the chat room experience came four or five real friendships, the kind that might last. But, I fear that without actual time spent together, these Internet friendships will eventually dissolve. I feel a need to connect with these people where I live and how I live. I need to make them a part of my real life.

"During the time that I was visiting the chat room on a daily basis, my involvement in the non-Internet part of my life became almost non-existent. Friendships of many years and my interest in other things began to lag. I was always anxious to re-connect with my new-found friends via the computer and couldn't wait to get home from outside activities to do it.

"I now have re-connected with my friends of many years, who wondered where I had disappeared to for a year or so. In many ways, it feels like I was away for that period of time.

"Evaluating that time in my life, I believe it was valuable and that the friends I met through it were meant to be a part of my life's journey. After all, life was not meant to be lived in one day, or one year.

"I haven't created a homepage and I'm not sure I want to. I'd like to have a Web site but am not too sure I'd know how to go about it. I'm not too sure I understand that yet.

"When I first realized that in the year 2000 I would be 65. I remember thinking, 'I'm not going to worry about that! I'll either be dead or too old to care.' File that with all the other things I've been wrong about. That file is getting larger as the years go by."

For at least one person, the Internet and its friendly community turned out to be her lifeline.

"How the Internet has effected my life! To be perfectly honest to me, IT WAS A GODSEND. All of my life I had been a very active person. Raising six children, taking care of home, doing all my own yard work, active in several church organizations and bowling 3 or 4 leagues every year as well as working full time. I was very happy with my life until we brought my mother-in-law to live with us when she reached the stage she could no longer live alone.

"She was not a very easy person to get along with so once she was settled I became even more active in various things to stay away from the house more and more. But that ended when she suffered a stroke and I was suddenly obliged to give up all of my outside activities and stay home with her.

"About the time she had her stroke I had won \$2,000 and bought my first computer and went online. Fortunately I found an e-mail group right after going online which gave me something to think of outside of myself and the problems here.

"I was terribly depressed at having to give up so much of my life to a woman I never really cared for and who had never shown any love or kindness to me. My husband and I had planned to do a lot of traveling when he retired, but thanks to her we were stuck at home and had to find a baby sitter to even get out for a dinner together once in a while. Then one of my friends in the e-mail group told me about the chat rooms and I found 60+ chat room. I really think THAT CHAT ROOM SAVED MY SANITY.

"I was on tranquilizers and antidepressants but knew that when things got really rough for me here I could escape to the chat room to joke and have fun with my cyber friends. I will always be grateful for having found 60+ with Laujack, Jade, Kiam, Lynn, drmil, Bundoon, Cliff and Paperlady, Uncle Pug and so many others. On New Years eve the first year we had a great party with those of us on the west coast celebrating a new year every hour with each group as the new year rolled over to each time zone. I think that was one of the most enjoyable New Years I ever spent.

"Also because of the Internet I did some traveling that I never would have had the occasion to do otherwise. There was the first annual get together of the 60+ crowd in Las Vegas, which was a thoroughly enjoyable occasion. Then in the summer of 97 I took an Amtrak trip all the way to PA by myself to meet with the e-mail group. I will always be grateful to the friends I found there for filling the void in my life at that time and am happy to keep in touch with some of them via e-mail. I feel that I am a better person and have a much broader outlook on the world outside my own little circle, now."

As this book was being written, the obituary of the above woman's husband was being e-mailed among her hundreds of net friends. She has received condolences from around the world; little help on a practical level, but spiritually strengthening. She knew that her old friends on the World Wide Web were still there and a few months later we were all delighted when she was back online.

Someone's grandson died tragically in a playground accident. Not only did prayers pour in from every corner of the world, including Belgium and

Australia, Holland and Hawaii, but the street address of the bereaved grandmother was passed around so people could send cards and the moral support so badly needed when tragedy strikes.

The death of a child is always a catastrophe for the parents and siblings, but the grief of the grandparents can only be truly appreciated by other grandparents.

Troubles shared, successes celebrated, greetings spread about at all times of day and night, these are the values derived by that little society of old folks who "live" on the Internet through a plethora of chat programs. You happen upon one by accident, or someone suggests you have a look see, then you're hooked because the people there invite you back. They pay attention to you, and that's flattering. Suddenly, even if you live alone and seldom engage in social activities, you have a worldful of friends.

People who don't know have been heard to say that the Internet cuts you off from the rest of the world. On the contrary, it puts you in touch, and if you happen to be elderly, and if getting out and about isn't as easy as it used to be, the Internet might just be almost the only contact you have with other people.

"I began using the Internet in 1996 when I retired. My first activities were in social chat, which captivated my attention for the better part of two years. Next, I evolved into political chat where the give and take was more to my liking but that too began to wear thin after another 18 months or so. My current interests are online games such as bridge and hearts. I spend about one hour per day on the Internet and I am getting ready to change my source of amusement.

Probably I will migrate back to writing or Web page building based on my published stories. The Internet is a source of amusement for me. I am basically an outdoor person and a reader. However, I cannot tolerate down time and that is where the net offers me diversion."

When a member of the 60+ chat group discovered her cancer was incurable, she opened up a Web site where she wrote regular accounts of how she and her family were coping. Her daily journal was actually uplifting. Her spirit right up to the end was an inspiration to her friends and to strangers who happened upon her Web site. This remarkable woman's reactions to the medical interventions and the decisions she made about them were also of interest to doctors whose attention was drawn to that powerful Web site.

Another popular type of Web page is the Home Page variety which tells everything about the person, his or her spouse, children, grandchildren, family pictures, including pets, and often also hand drawings right off the fridge door, by some of their youngsters.

These non-commercial Web pages being maintained on the Internet increase the value of the World Wide Web. Almost invariably they are giving rather than selling. Their authors use Web sites to introduce themselves to the visitor, provide some interesting material, and then add links to places they feel their visitor will also find useful, or entertaining. Typically, they have time to keep adding to their Web sites, making them interesting for those who return for repeated visits, and e-mail exchanges alert everyone to new additions.

Some keen and talented story-tellers are posting detailed descriptions of the way things were done in their youth. These sites provide invaluable social history.

From Houston, Texas, John Daut gives us a definitive and nostalgic account of No-Cost Fun in the 1930s. Hard to imagine for some perhaps, but there is an entire generation of people who never had manufactured toys, whose only board game was checkers, and who found the following entertaining:

"The young of all species are born knowing how to play and almost all of them are born wanting to. Children growing up in the great depression era were no different, except the entertainment we had were of little or no cost. Most of the time we wanted to play bad enough to invent our own games. All of us, both boys and girls, played no cost outdoor games.

"There was Blind Man's Buff where the person who was It would be blindfolded and have to find the other players who had to stand in one place until all were found.

"Hide and Seek, was a game where the one who was It hid his eyes at the base and counted, usually to one hundred, while the others hid. When the count was finished, It would hunt for the ones who were hiding. Each time It found someone, he had to beat them back to the base or they got in free. It was better played after dark.

"Tin Can Up was a version of hide and seek where a tin can was thrown and the one who was It had to run to get it and set it back on the base. The other players ran and hid while It went after the can. Each time It found someone, he

had to beat them back and touch the can before they did to put them out. If they beat It they would throw the can. Then the thrower and all who were caught so far would hide again.

"Hop Scotch was mostly a girls game, but just about all boys played when the other boys weren't looking. First a grid of numbered squares was drawn on the sidewalk with chalk. You had to start, standing on one foot and hop from square to square in order without missing one or stepping on a line. If you missed one or stepped on a line you lost your turn. You had a marker (rock) that you advanced one square each time you successfully completed the grid to keep score.

"In May I, all of the players would line up about 20 or 30 feet in front of the one who was It. It would tell each player in turn to move forward with something like 'John, take one giant step' or 'Mary, take two baby steps.' If the player moved before saying, 'May I' he or she would lose their turn. The first one to It was the winner and was It for the next round.

"Simon Says was very similar to May I. It would tell each player in turn to move forward with something like 'John, Simon Says take one giant step' or 'Mary, Simon Says take two baby steps.' If It didn't include 'Simon Says' in the command and the player moved, he lost his turn.

"Red Rover was a contact sport, where the players would form two lines facing each other about 10 or 15 feet apart. All the players in each line would grip hands and take turns calling to the other side. 'Red Rover, Red Rover let John (or

Mary or whoever) come over.' The one called would run and try to break through the line between two players in the opposite line.

"In Tag, It had to touch one of the other players and he or she would have to be It. Another version was Wood Tag where a player was safe as long as he was touching wood such as a tree or house or light pole".

Did he forget Capture the Flag and Prisoner's Base, or were those games perhaps not in John's Texas schoolyard itinerary? His Web site contains much more, though, taking the reader to times and places that will never return, except through this personal recall on the Internet.

Hundreds of Web sites, mostly commercial, are aimed at seniors, and there are as many more sites about seniors, but the most fascinating are the ones we build ourselves, for each other, and for the betterment of the Internet in general. They add a needed dimension.

"We find the information we need by surfing the Web, meet like-minded friends in chat rooms, visit distant lands, find lost relatives, study, investigate, and play games. Some of us are frail, confined to wheelchairs, or bed, but we still "get around" with our 'puters. As well as all we gain from the Web, we also provide."

While elderly people around the world have found freedom and friendship on the Internet, the Web sites they build and maintain provide information unique to their generation.

Visit the Taj Mahal, Niagara Falls, Strasbourg, Brazil, Hawaii, take an Aegean cruise or an African safari courtesy of Akio Yakata's formidable travelogue s, photographs and movie clips.

This talented and much traveled senior netizen takes pictures on his journeys to far away places and puts them up on his Web page. There, you can see Heathrow or Gatwick, for instance, before you ever make the flight to London, and get an idea of what a Paris subway looks like, or a market place in India.

"Let's change a point of view" was the original title of Akio's Web site. Born in Kyushu, Japan, this retired industrialist had been manager of the Toshiba computer business and Fuji Xerox, and a board member of CSK Corp. and J-Phone Tokyo Co. Ltd.

Akio Yakata's "change a point of view" concept is based on his variance from the traditional pictures that tourists usually take. The ones he comes home with, and provides for the world on his Web site, expose a different view. Akio not only photographs the main attractions, he adds surrounding shots, including sights seldom seen by visitors.

Carrying only a shoulder bag, Akio travels alone, usually taking only two days at a time away from his large three generation family. His photos provide armchair travel for those who will never be able to make the voyages themselves, and valuable hints for those who follow his footsteps to destinations around the world.

A nice example of seniors taking the time to provide a service was the Ask the Doctors Web site, thought up by Peter Jacob, a retired engineer in Braeside,

Ontario. Recovering from a stroke, he started by contacting a doctor in his native Germany, and a few others in Canada and the U.S. He persuaded them to take turns answering medical questions that members would send in to a Special Interest Group (SIG) on National Capital Freenet.

As his SIG became more and more popular and was occupying too much of his time, Peter asked me to help. I turned it into an interactive Web site on the Flora Community Web and within a few months we had over 100 doctors involved, from 27 countries.

"Depression and anxiety

"I'm a 28 year old English male - been through two redundancies through company liquidation and also a failed relationship of three years. My confidence has lapsed and I developed a bad tremor (hands particularly) and generally socially wasn't myself. I felt distanced and uncomfortable around large groups of people. My doctor prescribed propranolol for my anxiety and I have also been prescribed fluoxetine (which I do not take any more) . I am suffering from depression or anxiety. I am not the positive outgoing individual I used to be. I find my anxiety is heightened when shopping, socializing etc and sometimes it almost feels like panic. It is completely bewildering and upsetting. Do you have any advice?"

"Answer by Olli Sallinen MD, Helsinki

"I understand well how your situation is. I highly recommend you to go to psychotherapy. I use together with other specialists psychoanalysis but it's not so important what the name of it is. It must be professional and you must feel

comfortable and have a feeling of confidence towards the therapist. It hurts at the beginning. It takes some years and afterwards you understand. It as well will be of great help for you to understand other people. To see what they mean when they say so. And it will give you the possibility to help other people with similar troubles."

"DISCLAIMER: The material contained here should not be considered a substitute for your physician. These are only general guidelines to help you think about the medical possibilities. You are encouraged to consult your own health care provider with any questions or concerns you may have regarding your condition. To find other suggested answers to your question, refer to the Ask the Doctors Web site which includes a complete index of questions and answers at <http://www.flora.org/ask-doctor>."

Hundreds of questions were coming in every week, and the doctors gave advice on medication, therapy, exercise, diet, and a long list of other useful topics. I was invited to talk about the project at a medical conference in San Francisco. For fear of losing their insurance, despite our accurately worded and legally correct disclaimer, some of the American doctors eventually had to abandon giving advice on the Internet. Although the Web site became much less active, the complete index of previous questions and answers remains available on Flora, so Peter Jacob's initiative is still providing variant solutions for people with medical problems.

Can access to the Internet improve the psychosocial wellbeing of frail older seniors? This question was explored at the McGill Centre for Studies in Aging. A paper on the subject, by Fiona Clark and Silva M. Straka is available online.

Their study discovered that frail older seniors are at risk of being marginalized and socially excluded. The theory was that providing them with Internet access could help narrow the gap between these frail seniors and society, enhance their self-esteem, reduce their social isolation, and promote mental health by providing mental stimulation and the opportunity to learn new information and skills.

Funded by Canada's Office of Learning Technologies, frail seniors at three day centres and two residences in Montreal were given the opportunity to use computers and the Internet on a regular basis. Four research topics were explored:

1. Feasibility of providing human and technical resources.
2. What kinds of people participate.
3. How much and why participants use the computer.
4. Psychosocial benefits experienced by participants.

Participants were interviewed before the beginning of the project and again six months later. Other data collected included computer usage logs, questionnaires for volunteers and teachers, and a focus group for the site organizers.

After nine weeks of professional instruction, the participants were helped by volunteers for the remainder of the six months.

The participants in the study were 68 to 98 years of age, with a mean age of 85.5 years. Coming from a variety of ethnic and cultural backgrounds and life experiences, most participants had some level of physical disability, especially vision, hand mobility and general mobility. Educational levels varied, from several who had grade 3 education to those with graduate degrees. Although participants used a variety of programs, the most popular was e-mail. Their other computer usage ranged from surfing the Internet to using Word for a variety of personal projects, and playing games.

The methodology of the McGill Centre for Studies in Aging specified that "because of the frailty and poor health of many of the participants, great care was taken to clearly explain the study and provide adequate information for a fully informed consent process." This suggests a common misconception that if a person is old and frail and in poor health, he is also likely to be mentally retarded. Typical and widespread, this notion invades many programs involving old people.

In Ottawa, as a part of National Capital Freenet's outreach program, I had volunteered to teach computer use to the people at St Patrick's Home, a residence for frail seniors. We set up a computer in the main living room and showed them how to manage e-mail. One person, a retired priest, obtained an e-mail address and a few others took this opportunity to contact old friends and relatives. Very soon thereafter, the policy on nursing homes changed and this one became inhabited for the most part by bed-ridden invalids. To serve them we would have needed computers and phone line connections in every room and many

volunteers with unlimited time, all of which was impossible to attain, so the project was abandoned. Staff members at the home were willing and able to help but computer-mediated communication was not a priority, neither time nor money being available for this pursuit. Ours was not an experiment but simply a small community effort on the part of a few volunteers to share what we had discovered was a great adventure.

In the McGill experiment, one of the most important benefits the participants reported was that after receiving some computer instruction, they felt part of society again. Other key benefits were the strengthening of their social networks by e-mail, a sense of mastery and achievement, the pleasure of gaining new knowledge and just learning how computers work. For many, it provided much needed mental stimulation and challenge, while for others it was a way to fill a void in their lives. Almost all the participants reported multiple benefits in these categories.

Of the original group, 81 per cent completed the nine-week course, and after six months 53 per cent were still planning to continue computer activities. Implementing and maintaining such a program was considered to be well worth the effort in terms of benefits to the participants, the institutions, the teachers and the volunteers.

As a pilot project this study could be useful to any other group wishing to undertake a similar one, though the costs could be considerable. McGill was able to purchase two computers, monitors, desks, a printer, telephone installation, phone service, network service, supplies, paper and printing, CDs and diskettes,

for \$2,830.00. In addition, they paid \$20 an hour plus expenses for the instructors. After the instruction period, the project was taken over by volunteers who were not paid but who felt they were recompensed because they enjoyed the contact with the seniors.

It was an excellent experiment, benefiting all participants, and a valuable pilot for any other group interested in a worthwhile project.

Another investigation of seniors on the Internet is the Seniors Canada On-line Survey, done between November 2001 and January 2002. Its objectives were to identify barriers faced by seniors in their use of information technology, and suggest ways of removing these barriers. The overall aim was "to develop strategies and concrete action plans which could help Canada's seniors gain increased access to computer skills and gain a greater degree of comfort when using the Internet."

Their methodology was to collect data, through field surveys of clients and providers, from 24 community and seniors organizations in Vancouver, British Columbia, and Ottawa, Ontario, that offer Internet and computer-based training to seniors. They also conducted a national online survey accessed through their Seniors Canada On-line Web site.

Almost all the seniors had previous computer training and were taking further training on a regular basis, mostly at their own expense, or so they thought. Although the majority said they did not receive subsidies to take the courses, many courses were in fact subsidized, such as free courses at the library.

Clients who did not provide details of their sources of subsidies probably didn't know what they were.

Most of the respondents to the survey had access to a computer at home, other than the one used for training. Those who didn't said they would like to have access to a computer at the community centre, seniors centre, or apartment building lounge.

Useful aspects of the training they were receiving were the quality of instruction, learning the basics of computer operations, hands-on practice, and a few appreciated printed course materials. Difficulties noted were "using the mouse" and "reading the screen."

About two thirds said they felt "negative, afraid, apprehensive, and unconfident" before taking the course. Only 5% still felt that way after taking the course, while 92% were confident, positive, eager to learn more, and everyone agreed the course, content and instruction was satisfactory to excellent.

Some of the participants wanted more courses, upgraded computers, and also subsidies from the Federal government and Veteran's Affairs. The survey found that 79% of responding organizations in Ottawa and Vancouver provide computer and Internet basic training to seniors. This ranged from one-day workshops to sessions that last between 45 minutes and 3 hours spread over a 3 to 8 week period, 42% of the instructors being volunteers and classes ranging from 1 to 24 students. A third of the classes are free, a third charge \$10 to \$25, and a third charge over \$30 and up to \$168. Half the respondents said financial assistance is offered to those with low income.

Major factors contributing to the success of these programs are said to be patience and teaching ability of the instructors, low cost, small groups, hands-on training, a "fun" and safe environment.

Shortfalls to the programs have included lack of computers, Internet connection, and space, outdated or unreliable equipment, lack of funding, difficulty keeping volunteers and instructors and not enough class time.

Teachers listed difficulties in teaching seniors as problems manipulating the mouse, reading the screen, lack of patience, overcoming initial fear and mental block, difficulty retaining information and reading or literacy skills, in that order. The instructors also said special considerations were required to accommodate people of various cultural backgrounds.

Key components for teaching introductory computer and Internet skills to seniors were patience, easy pace, repetition of skills, encouragement, engaging participants, emphasizing basics, simplicity, suitable equipment and acoustics, simple handouts, and small class size.

Very few respondents were using hardware devices or software designed to assist those with disabilities. This field appears to be wide open and ready for development.

Financial help had come to many of the participants from Industry Canada's Community Access Program, Gates Foundation, Human Resources and Development Canada, VOLNET, provincial, municipal, college, universities and private companies including the Royal Bank.

Computer and Internet training for seniors could be improved with more computers and connections, more one on one training with peer support and follow-up, greater availability of courses, more variety, longer courses, training for volunteers, updated hardware and software, more programs and more advertising of available courses.

Other suggestions were for more computers and Internet connections in public locations, more practice time with support including in-home training, subsidized computer purchases for home use by seniors. This Seniors Canada On-line Survey revealed a mysterious, though widespread, notion that some people should be assisted in obtaining Internet service and computers simply because they are old. Most regular members of chat rooms don't have Web sites, but use e-mail to describe their early days, when asked. The gentleman we call "The Baron" gives this picture of New York life long past.

"I was born in 1927 to a 42 year old immigrant woman from Poland. Baran in Polish means Ram, but I changed it to Baron for my nom-de-plume. By the way, my mother always remained forty-two so that when asked up into the sixties, how old she was, I always answered, "Forty Two". She married my Father in about 1900. I have heard that his name, "Jata" was " Lion". It seems that in my parents' area there were clan names not "Ski" which means "belonging to". Kovalski would be belonging to the blacksmith trade.

"I was the last (I wonder why) of four sons. They were John, Chester, Felix and me. The town I was born in was Maspeth, Queens, New York. It was an old town

that was settled in the sixteen hundreds by Dutch settlers. Most of the buildings were cold water flats built for the war economy of pre-civil war.

"Although we were all poor, it was a fine place to be brought up in. This town, although only 27 miles from Times Square, was rural. We had two working farms into the upper 1940s. Maspeth was surrounded by barriers that tended to isolate it from city influences. A creek and a railroad cut separated it from Brooklyn on the western side. The Interboro Highway and cemeteries formed a barrier on the south. A railroad cut and the tracks of the Long Island Railroad on the east divided us from the rest of Queens, while on the north there was a Chinese wall of many cemeteries.

"It was so left back that one of my earliest memories was that of a Mack Truck fire engine with a boiler-fed steam pump on the back with solid rubber tires. Another was of the horse drawn , centre-drop garbage wagon that picked up the trash and an old road oiler that helped keep the dust down.

"It was idyllic for a boy growing up with its swamps, granite works, sand banks and treed areas. That flat sandbanks area is now a park. It was ideal for ball games of all sorts. I have played many games. In one corner, next to the water pump house, a local Triple A baseball team constructed wooden stands. I am proud that my big brother, Lefty (Chester), played a great first base for the Maspeth El Kays. They had one of the first illuminated night games in the thirties.

"That pump house had a huge Oak standing in front of it. Someone tied a one-inch rope to an upper limb. Talk about a swing! Also at one end of the pump

house was a fifty-foot chimney. One of our rites of passage was to climb up to the top using the iron hand grips embedded in the side of the chimney.

"I went to a tough little old public school that mostly immigrant children attended. I was precocious enough to get into trouble trying to lure Lillian Tim into the clothes closet for a . . . "

The Baron's story ended abruptly and we never knew exactly why.

Visiting distant family members, researching genealogy, sightseeing and adventure are among the lures to travel that are all made simpler by advance research of the intended destination. Right down to the actual purchasing of the air or train tickets, some seniors do it all on the Internet. One Web site called "Travel Information for Senior Citizens" carries a comprehensive index of valuable resources and links to other sites designed to help old folks on the go.

"The Internet has made a big change in my life. I have met so many people through the chat rooms. And have made all my arrangements on two trips to Germany. I love doing gardening, so when I have a problem with a plant, I do all my research on the Internet, and have found my answers. I keep in touch with my family through the e-mails."

Web sites designated for old people tend to differ in their definition of terms, such as the Old People's Riding Club in Maryland, which is for equestrians over the age of 21!

Others are of dubious value, including the many lists of so-called "old people's jokes" which recycle around and around the Internet. Most of them are

in poor taste but still continue to arrive in everyone's e-mail from well meaning friends who like to keep in touch but can't think of anything to say.

Beautiful scenes are typical on the sites of seniors. Some presentations are breathtaking. For people not familiar with the area, Patricia Beach is a Provincial Park located on the sandy shores of Lake Winnipeg, approximately one hour's drive on highway 59 north of Winnipeg, Manitoba. Bernd Riegel has produced colour photographs, both still and moving, that are well worth waiting the few seconds they take to download.

Bernd says that he discovered the computer as an interesting hobby. Right from the very beginning he was fascinated by animations, applets and things which move. With no previous experience with computers it was not easy for him to figure all these things out, but he did it all by himself and his animated Web site shows what can be done when one puts one's mind to it.

Australian Gerald and Canadian Lois met up on their travels and decided to get married and move to Australia. Before leaving though, they decided to see as much of Canada as possible before the closing of the tourist season in the fall of 2002, when all the parks close for the winter. Their Web site is loaded with photos to give a pictorial look at what they have seen and where they have been. They call their site *Waltzing Matilda Across Canada*.

Another rambling couple, Ron and Barb Hofmeister, have been living full time in their RV since 1989. They wrote a book and run a newsletter and have a Web site packed with links and updates.

These sites are special; a person who has been around for three-quarters of a century has more to say than the twenty-something netter, and there are other major differences.

When he was still in his fifties, Manitoban Bill Hillman was the oldest teacher, a 30-year veteran, at the school in his native town of Strathclair, and the only one using technology to any extent in teaching. Having integrated computers into his English, Geography, Business and History classes for years, he found access to the Internet was a natural and logical extension.

Hillman worked on his first Web site over the summer holiday in 1996, using a Netscape editor to bypass what he considered to be the drudgery of programming in HTML.

His son was already adept on the computer, and soon Bill lured his wife and daughters into the process as well. He then organized a Web page project for his school where much of his workday consisted of showing students how to create their own Web pages. The aim was to use them as learning tools, as a means of displaying findings after researching the Web, CD-ROMs and other programs.

Depending on how gung ho he got on new ideas, and depending on his workload, time spent upgrading his Web site varied, but he always kept up on the very latest technology, as a demonstration of what can be done. Now an assistant professor at Brandon University, Bill Hillman still spends a great deal of time reading other people's Web sites. Bill says:

"It's a natural extension of the consuming curiosity I have always had and which has been fed by travel and complete immersion in the media and family interaction."

Hillman corresponds with the Webmasters of other intriguing Web pages, and often finds old acquaintances and former students surfacing in cyberspace - or as he puts it "on the CyberSea." He receives about a hundred letters a day from newsgroups representing some of his specific interests developed over the years.

People who feel at home on the Internet carry a number of lists in their mailboxes. Bill Hillman's have included Edgar Rice Burroughs collectors, SciFi Fantasies, fellow devotees and collectors of Old Time Radio shows (Jack Benny, The Lone Ranger, Amos 'n' Andy, Fibber McGee & Molly, etc..) fans of Cliff Richard & the Shadows, Everly Brothers, Elvis, Blues, etc... and collectors of vintage guitars, books, comics, magazines, records, etc. Everyone has his own interests, some passing and sometimes enduring, all bringing masses of friends and information into their homes at the click of a mouse.

All fun and frolic aside, people like Bill Hillman also bring value to the Internet. His many disciples and converts with serious intent will populate his CyberSea for years to come.

As for benefits to the Bill Hillmans of the cyber world, his words say it neatly:

"It strokes my mind, providing another creative outlet and more immediate feeding of my ravenous curiosity. Yet another hearth for the family to gather around . . . it broadens family interests."

The Hillman family includes three teenagers. Does he find his family reads fewer books, watches less television, visits other people less, since they became engrossed with the Internet? Not this teacher. They all multi task, using the dead time while net surfing for other endeavours.

To the right of his computer is a stereo with CD, tape, and record players attached. On the left is a TV/VCR attached to cable and a satellite dish antenna. Over his shoulder is a reading lamp and his desk has pull-out trays on which he places coffee cups and snacks. There is room on the desk to prop up school assignments, books, magazines, daily papers, the telephone, and a radio, while on the walls around him are 4000 video tapes of documentaries, classic movies, and music, as well as book and magazine collections.

This is the consummate cyber scholar, but surprisingly many of the old folks who are truly at home in this medium do set themselves up in this same manner. Propped behind Mr. Hillman, in easy reach, is a Fender Tele and synthesizer, he being also a musician, and on a desk nearby is the laptop computer which he takes to work. There are times, quite often, when all of these components are active.

As a member of the demographic group called seniors, he finds it difficult to understand discrimination. On the Internet, he has found age to be meaningless, yet he has undoubtedly experienced some folks who "look upon people over a certain age as being some 'over the hill gang' who have to scrape and struggle to prove that 'hey we really can do something'."

This, he feels, is demeaning to a whole section of society.

Hilly Scholten, 70+, retired psychologist in Amsterdam, takes us to the Netherlands with breathtaking photos, paintings and stories about the longest skating race in the world.

English is the common language on the Internet, though for some it comes more easily than for others. Also, in Europe, the cost of staying online is limiting, but Dr. Scholten comes through with her art and her stories, illustrated with colourful photographs.

"The eleven cities skating journey, 'Elfsteden Tocht', 130 miles in one day is possible on the canals connecting 11 cities in Friesland, a province in the North.

"Abroad they call this event a "traditional folk game". But I can assure you it's not really just a "game": the weather can be very bad and many are wounded. 6000 had to give up one year, besides tiredness also because of freezing toes, noses, broken hips. So we call it of course the "Tour of Tours", or even the "Mother of All Tours".

"Almost all years our winters start in January or February, although many people like snow at Xmas of course, which sometimes happens. But we have many soft winters: there once was a period of 22 years in a row, when no Tour was possible. And most of the time winter is slowly crawling in, "promising" a Tour with every day of freezing, but it takes at least 10 days in a row of good freezing for the ice to be thick enough (6 to 8 inches).

"Already in the 18th century individuals started to visit in one day all the cities of Friesland just for fun, and their bars and café's for a warm drink of hot chocolate milk!.

"Skating is not only fun, but also a faster way of visiting neighbours, when carts were useless. They also have sleighs up there, with horses to do tours on the lake. Sometimes even our Zuydersea is frozen and can carry cars

"In 1909 the Tour became an official event, with only 23 competitors. The 1909 winner made it in 13 hours 50 minutes, but picture this in 1997: 05:30, a misty, still dark morning. 16000 odd people, concentrating. All hoping. A pale sun, rising three hours later, not too much snow falling, a not too hard eastern wind, a feeling temp. of about -4F.

"The Racers start first, mine lamps on their heads for those first hours in the dark. The lesser gods start later, a disadvantage, but only longing to make it in time because the rule is: at midnight it's over! So in the city before the finish, they send you from the ice because it's not possible anymore to do those last miles in 1 hour. Tears for many, arriving there at 11.00!! No cross!

"The winner is famous from that moment on in the whole country. Just to participate and make it to the end: you are a hero too.

"When circumstances are very bad, skaters form groups, to help each other by being the first of a row in turns, catching most of the wind. Once it was so hard that a group of racers decided to finish hand in hand, to share that place. Isn't that great!!

"In 1997 half a million people cheered along the way. 90 per cent of us watched on the TV. Abroad there were 1 to 5 minute reports by CNN, English, Canadian and Australian TV channels. Also pictures in their papers. The winner,

Henk Angenent, finished in 06.47.11 hours. Klasina was the first of the women: 07.49.18 hours. (Remember the year 1909 when it took 13.50 hours!)

"But the REAL winner for me was a man 73 years old! And Klaas, 70 years, did the tour for the 8th time, a record.

"A few anecdotes: In 1929 skater no.31 afterwards had to have amputated part of a toe; in 1933 the first woman participated. She also received a bouquet! (The gallantry of men!) One man said that when he sat down for a few minutes, too tired, a beautiful, green-eyed girl suddenly appeared and massaged his back, so, flying on wings of love he could go on! It is said he could never find her again. (The power of women!)

"Our Crown Prince made it in 1986 as a tour rider. Queen Beatrix and Prince Consort Claus very proud of course! One year was beautiful with a thaw setting in, about 32 degrees F. and sunny. In 1963 mustaches and eyebrows were all white and frozen!

"This Tour is a national heritage, though it can never be a real sports event on the International sports calendar. Because of the weather it's only a rare one. It had been possible only 15 times now since 1909"

Mabel Jones lives in Alabama. Her Web site diary includes all the wonderful ways they did things there during the last century. When she was in her early 80s, Mabel began documenting her childhood farm memories of the depression years. She recalls making brooms, churning butter, cooking on a wood stove and other recollections of a lifestyle which could have been forever swept away by today's modern technology. Because this versatile lady took to

her computer with the same enthusiasm she had taken to her flat iron in earlier years, that lifestyle will never be forgotten.

"Mama stepped out on the porch with her '38 in her hand, held it up where the moonlight fell on it, and said, I'm warning you, if you don't leave now, I'll shoot! The man didn't take time to walk to the gate, he jumped the fence! To show she meant business, she shot up in the air as he went over."

Alabama wasn't all that different from Ontario, and maybe even Geneva or Glasgow, when you come to think of it. Small differences but the fundamentals were very similar.

"One of the many things the women on the farm did was pick and can the produce that was grown on the farm. Our dad had several acres in peas, butter beans, snap beans, okra, sweet corn, squash, tomatoes, cabbage and Irish potatoes. I guess you would say he truck farmed in the spring. Mom and the girls really came in handy then. Dad also took a truckload to town every morning. I went with him a lot. The Colonial Hotel on Lake Jackson was one of his customers. I did love to go in there with Daddy to carry the produce. They had the biggest stove I had ever seen. It was five or six times as big as our stove at home. I think it was electric. Back then that was unusual. They always bought lots of vegetables.

"We girls got up before day to go to gathering the produce for market. Then gathered again for canning. Mom helped with all of the different jobs pertaining to canning and preserving. When we got enough prepared, she started the

cooking of the vegetables to be canned. She always had several closets full of jars, and jars of all the vegetables.

"During fruit season we put up peach preserves, and pickled peaches. Also fig preserves and blackberries. Mom could make such good blackberry jelly. We would gather May haws in May for jelly also. May haw jelly had a tart taste, it was real good with hot buttered biscuits in the mornings, or at night with hot buttered biscuits. Fry up some country ham out of our smokehouse, and you had a meal fit for a king.

"Daddy had a brother living on a farm out from Rockford, Ala. We went to visit them in apple harvesting time and always brought back several burlap bags of apples. We would peel them and slice them fairly thin, and carry them up on the roof top and spread them on something for drying. They were then put in big crocks for using during the year. We always had an abundance of good food. I was brought up during the depression, but I don't remember ever being hungry.

"We put up our food, took our corn to mill to have our meal ground, churned and made our own butter. I guess flour and sugar were the other staples we bought in large amounts, also coffee and tea. Course I was half grown before I knew what tea was. I have written all of this and I have gotten hungry and, wouldn't you know, I don't have a smokehouse or homemade biscuits to satisfy my country appetite! Such is life in town!" (Excerpts from Mabel Jones's *Beer and Gunfire*.)

Mabel's Web site also includes old fashioned courtship, the country smokehouse, syrup making, wood heat and dozens of other intriguing stories, each one a gem.

Elderly netters tend to be comfortable with their age. Only a few resent being part of the senior generation and consider the word "old" to be, paradoxically, insulting.

"Old people you say? I am a pensioner, a senior, and do not consider myself 'OLD'. If you are interested in positive feedback for your research, you may want to have an attitude adjustment. The trick is to live a long time without growing old."

This person had missed the opening premise in our Old Folks at Home on the World Wide Web site which states that it is for people who don't think being old is an embarrassment, avoidable, reversible, disgraceful, a crime, a disease, or even a social faux pas. This same respondent did, however, offer the following:

"We are all individuals doing our thing on the net. And because we are "older" we probably have a wider range of interests than young kids. I check my 649 ticket on the net; I checked the position of Hale-Bopp for times and directions. I checked out the Galileo pics from NASA, and the "life-on-the-Mars-asteroid" pics, too. I looked for info on croquet, because I'm thinking of establishing a croquet court at the resort. Then I found the Vancouver Croquet club, and found Tilley's Endurables is a sponsor. So I checked out their catalogue. And of course I like to "listen" to members of the Freenet Seniors SIG (Special Interest Group) natter away. And - oh, and I forgot, we have a Web site for the

Resort, and we have people calling in to inquire. So, what do other people use it for?"

Well, there's no pat answer to that question. Worth noting is that the Web sites of most people in this category are not intrusive; they do not try to persuade the reader to do, think, or buy anything.

On the other hand, if you look up the word "seniors" in a search engine you are led to lists of Web sites written, presumably, for seniors, telling them what to buy, where to travel, where to invest, and offering information, pen pals, candy, flowers and services for a fee. Seniors on the Internet are assumed to have money, so everyone who has something to sell targets them.

There are also a few good non-commercial sites which have been set up for seniors with information about health, insurance, and various government services. These occasionally will include some free pen pal lists and places where seniors can exchange information.

The most comprehensive of these sites is the Seniors Canadian Internet Program (SCIP), a highly acclaimed guide to global information and services for retirees and older adults. Another attempt at this sort of service, since abandoned, included an article about a Red Cross offer, patronizingly allowing "Older Canadians to have their very own active living program." This wording leaves one with the impression that the authors find it sort of cute that the little old seniors can actually do something by their "very own" selves. In the reality of cyberspace the cute little old seniors are doing amazing things for themselves, and of great benefit to the entire World Wide Web.

If there is one common denominator, it is diversity.

"When you live in Hawaii you are farther from any other civilized area than you can be on any other livable point. The Internet has special significance out here in the middle of the Pacific Ocean for two reasons, one is truly isolated and -- more important -- one is threatened with becoming insular. You think you know what that word means until you live in a fully, totally insular society where it's unthinkable that you tell someone what you really think because you will almost certainly see them again in the grocery tomorrow!

"The Internet allows an escape from that. I love the little jargon that goes with "reaching out and touching someone" on the Web, the 'ping' and 'finger' have meaning beyond definition as I'm sure you appreciate. But they're ways of finding someone, ways of perfecting their address and methods to be sure they're still there. I know of no comparable methods involved in other forms of communication.

"I've discovered the one good product that Microsoft offers, FrontPage, which works beautifully for the busy Webmaster and has even better qualities for those few of us whose memory isn't wonderful any more.

"E-mail is most important and I probably get from 20 to 40 communications a day (not counting spam, ads, etc.) connected with loved ones, business or politics. My main URL is Hawaii Island's Magazine. Most of my work on the Internet is research which, these days, is usually connected to forestry."

The quintessential Web site for art in several forms is that of Claire Read, called "Claire's Place." This talented, Web connected lady demonstrates

Visit Canada's most southerly village, Wheatley, Ontario, via an amusing Web site by Ken Crew, that town's poet laureate.

Tour Western Canada with Pat Chenier, who also tells us how to do cross stitch, how to speak Spanish, and gives us the thesis on Horticulture in the North which she wrote at the University of Guelph for her ODH in 1986. Pat covers all aspects of gardening in cold climates and much that is applicable to other areas as well. Her Web site also includes recipes for old world cheesecake, old English fruitcake, potato pancakes, traditional eggnog, pumpkin pie, shortbread cookies, family size brownies and other goodies. Mrs. Grenier is a woman of many talents, including quilting.

"I have developed the philosophy that you are never too old to learn. I strive to learn something new all the time. My latest endeavour is this home page. All too often I come across people who say 'I don't have time to learn a craft' or 'I am too old'. I have made it my goal to help as many people as possible to cross these barriers."

Ann and Lou van Delft of Sarnia, Ontario, give us dandy pictures of birds and bridges and other interesting Ontario sights, which will enlarge to full screen images when you click on them. Hundreds of unimposing seniors' sites all over the Web have no great claims to expertise in any field but just carry uplifting suggestions, like 77-year-old Bill Caldwell's message:

"Love life and people, watch the sunrise, appreciate each day, enjoy the simple pleasures, help others, set a good example for children, support

education, keep all your promises, compliment others, stay active, be optimistic, and SMILE often, it's a face lift that costs nothing!"

Even if this philosophy were the only contribution to the World Wide Web by its senior advocates, it makes their presence worthwhile.

Chapter V Forever

A permanent home to outlive the authors.

Voices of reason laced with experience and understanding of the human condition are being tested on the World Wide Web. Unfocused for the most part, they could go unheeded and disappear forever, or could be channeled, distilled and put to use. More importantly, the methods learned and used by seniors today as they move cautiously into the World Wide Web build a foundation for tomorrow. When voices without faces become a basis of trust, the current debilitating wisdom deficit will be overcome.

Discrimination against anyone over a certain age will go out of style as electronic information from the older generation becomes routine.

Computer-mediated communication has changed many other attitudes as well. Once upon a time, foreigners and strangers were automatically considered to be potential enemies. Lack of knowledge about others engendered hostility, similar to today's tendency to view extraterrestrials with caution, fear and disbelief, enhanced by official denial.

Canadians chat regularly with net pals in Brussels, Sydney and Maui. People from far away are no longer strangers. Whenever beings from outer space learn our language, or we learn theirs, horizons will widen further. Now that porpoises and whales are learning to speak to each other, who knows what we

humans may achieve, as we continue exploration and discovery in the field of communications?

As I wander, Alice-like, through the looking glass of this medium, I'm entranced with the way it gives voice to everyone, without prejudice. Like an astral traveler, I have gone far afield, befriending people in societies I would never have known existed.

One of the old folks' cyberclubs in the U.S., The Geezer Brigade, publishes such mottos as "It's frustrating when you know all the answers, but nobody bothers to ask you the questions any more." This attitude will go out of style as the need for common sense drives society to seek wisdom where it exists, among the elders. Ninety-year-old members of groups like The Geezer Brigade will be sought after for advice, not as members of an old folks club but as experienced, knowledgeable individuals, available on the Internet.

Awaiting this era of insightful valuing of the wisdom of the aged, a serious concern remained to be addressed. A means was needed to preserve the best work of our Internet elders; not only the works now online but, as more and more people engage, the information stored on the Internet will become formidable. Then, when the authors have passed on, where will this trove be treasured?

Seeking a permanent home for some of the excellent Web sites that spell out the pith of our generation, one finds several public services for preserving memorabilia both past and present, but not in this electronic medium.

Historically, libraries fill this need, but even in these safe places evidence of knowledge has been known to fall victim to fire, flood and fracas. Before the advent of movable type and the printing press with availability of multiple copies, burning a book could wipe out a life's work. Similarly, if a person's work is contained in a Web site it can vanish the moment the author ceases to pay his fee to the Internet Access Provider.

When the world famous library at Alexandria was mysteriously burned down it was reputed to contain every book in the world at that time, over 900,000 unique manuscripts. By accident or by intent, when these single existing works were gone, there was no retrieval. Today, in the case of the Web sites of our oldest Internet generation, what hope was there of saving them, after their authors have gone?

The search for a safe repository brought to light numerous valuable resources, but none has facilities for selecting and preserving current Web sites, though each maintains an excellent Web site to display its own work.

Established in 1973, The Heritage Canada Foundation is a national, membership-based organization and registered charity. Its mandate is to preserve and demonstrate, and to encourage the preservation and demonstration of the nationally significant historic, architectural, natural and scenic heritage of Canada with a view to stimulating and promoting the interest of the people of Canada in that heritage.

Then there is Canadian Heritage, a department of the federal government, responsible for national policies and programs that promote Canadian content, foster cultural participation, active citizenship and Canada's civic life, and strengthen connections among Canadians. Neither Heritage Canada, nor Canadian Heritage holds individual citizens' Web sites to be heritage.

We also have the National Archives of Canada with its strong Living Memory area. Here the displays use media under various headings: Documentary Art, Audio Visual, Postal Archives, Maps, Photography, Government Records, Manuscripts and Private Collections. As yet there is no room for Web site archives.

The National Library's own Web site includes Early Canadiana Online (ECO), a digital library started in 1997 to provide access to Canada's printed heritage. ECO features works published from the time of the first European settlers up to the early 20th Century. It is produced by the Canadian Institute for Historical Microreproductions (CIHM), a nonprofit organization for preserving and providing access to early Canadian publications, first on microfiche and now online. By the time today's Web site contributions to the social history of our time are old enough to be called "heritage", many of them could have vanished. They are not being archived by the National Library.

Most exciting and innovative is the Canadian Conservation Institute (CCI), created in 1972 to promote the proper care and preservation of Canada's cultural heritage and advance the practice, science, and technology of conservation.

This Alexandria location was selected by Internet Archive, a California-based group preserving all the current Web sites and many other cultural artifacts in digital form. This company has been working since 1996 on their incredible WayBack Machine, which is now open to the public. All its files are backed up locally, and mirrored in Egypt.

The WayBack was invented by Brewster Kahle, director and co-founder of Internet Archive. He had been working to provide universal access to all human knowledge since the mid-1980s, developing transformational technologies for information discovery and digital libraries. A 1982 graduate of Massachusetts Institute of Technology (MIT), Brewster Kahle invented the Internet's first publishing system, Wide Area Information Server (WAIS) in 1989, and founded WAIS Inc., a pioneering electronic publishing company.

With Internet Archive and the WayBack Machine, Web sites posted to the World Wide Web have been given a life of their own and now outlive the authors. The sites built and maintained by the lady who died of cancer, and the man who had the fatal heart attack, mentioned in previous chapters, are both therefore extant. This is good to know, but even more reassuring is the knowledge that brilliant contributions to the Internet by its oldest users will be preserved and made accessible to anyone in need of their special wisdom. What could have been lost forever is now online, forever.

A public nonprofit organization, Internet Archive already has over 100 terabytes (that's 100,000,000,000,000 bytes) of data in its Internet library, the

largest in the world, offering researchers, historians, and the general public, permanent access to historical collections in digital format.

In addition to developing its own collections, Internet Archive plans to promote the formation of other Internet libraries, to elevate the content of the Internet from ephemera to enduring artifacts of our political and cultural lives.

As governments wake to the political significance of the World Wide Web, laws will be enacted regarding public accessibility of information only available on the Internet. Failing current archiving, much of this material could have been lost by the time the laws come into effect. The Internet Archive, meanwhile, has prevented such a calamity.

Electronic Frontier pioneer Stewart Brand, founder of the WELL online service in San Francisco, and of The Whole Earth Catalog among other good things, has written, regarding the Internet Archive as an essential service:

"Its founding is bound to be looked back on with the same fondness and respect as people now have for the public libraries seeded by Andrew Carnegie a century ago. Digitized information has such rapid turnover these days that total loss is the norm. Civilization is developing severe amnesia as a result; indeed it may have become too amnesiac already to notice the problem properly.

"The Internet Archive is the beginning of a cure — the beginning of complete, detailed, accessible, searchable memory for society, and not just scholars this time, but everyone."

As Donald Heath, president of the Internet Society in Reston, Virginia says, "We don't know where this Internet is going, and once we get there it will be very instructive to look back."

"With a Way-Back machine," states James Pitkow, of the Xerox Palo Alto Research Center, "historians and others would literally have a window on the past."

Two major tasks of Internet Archive are to protect stored resources against accidents and data degradation and maintain the accessibility of data as formats become obsolete. They are studying ways to achieve this, and by maintaining copies of the Internet Archive's collections at multiple sites they reduce the risk of loss through accidents and natural disasters.

Cities, provinces and the Federal Government all agree to the advocacy of preserving written records. Archives, museums, and historical societies do what they can to keep our heritage alive. This is a sign of civilization. Writings on the walls of caves send the same message across the ages. Researchers seek out information in ancient scrolls, on tablets, and on paper in libraries around the world. These are all preserved, indexed and made available for all to see, and now it has been realized that the treasure trove of social history floating about cyberspace on the Internet also needs to be archived.

As the members of our first generation of senior computer journalists pass on, their contribution to current online literature, the social history contained on their Web sites, was definitely in danger of disappearing because they did not

fall within the purview of any government, academic or industrial group. Among the countless Web sites being posted on the Internet every day, those produced by some of our seniors will now be considered, in future times, to be important documents of our generation. The advent of Internet Archives has made this possible.

Demonstrating the symbiotic relationship between the Internet and its older users, the Web site called "Old Folks at Home on the World Wide Web" links readers to examples of the seeds sown by seniors in cyberspace, and to sources from which they glean. Links to every reference in this work can also be found on that Web site at <http://www.flora.org/oldfolks/>

By expanding and sharing his personal file-finding system, Tim Berners-Lee has made life exciting for millions of people around the world. Though intended for business and research, the linking he invented now also brings people and information together everywhere and has added yet another dimension to the amazing life experiences of the oldest generation.

In 1996 the Public Broadcasting System interviewed this author for a TV series about understanding the Internet. Though not yet very knowledgeable on the subject, I managed to suggest that anyone who could bake bread in a wood stove, and manufacture children's clothing on a treadle sewing machine, could organize a site on the World Wide Web. Tim Berners-Lee, interviewed on the same show, was much more lucent. He explained the difference between the Internet and the Web. "The Net is made of cables and computers, little

computers, the root packets and abstract space, which is just what the authors of the Web have made it. big computers that set them up, send them out. When you explore the Net you find computers. The Web is an abstract universe of information. The important thing about the Web is that you don't see computers and networks. So when you explore the Web you find documents, pictures, sound. You find people. You're exploring an abstract space, which is just what the authors of the Web have made it.

"Anybody who reads the Web ought to be able to write something for Web . . . it's . going to be so much fun for everybody to be able to write hypertext. Of course, when everybody is producing things, as with paper, there's going to be so much rubbish out there, so much junk . . . we're going to need to distinguish the wheat from the chaff, but the chaff is also useful."

And so it is, useful, fascinating, forever, for whomever is interested.

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Interviews:

I have interviewed hundreds of people for this thesis, including the following, some in person but mostly by e-mail.

Carol MacIvor, Canadian Conservation Institute Information Managing Editor about CCI

Cara Prest, Canadian Heritage Information Network about (CHIN)

Ian Allen, professor at Algonquin College

Rony Aoun, student at Carleton University, about production of HTML.

Pierre Bourque, computer journalist, about the value of the internet for seniors.

Tom Kyle, 71 year old retired industrialist, re setting up Web sites.

Fred Thompson, futurist, regarding "blogs".

Richard Denesiuk of Creative Retirement Manitoba regarding intergenerational advice.

Jim Olson in Eau Claire, Minnesota about Elder Hostels

Douglas Rushkoff of the mediasquatters about cyberspace being youth-specific.

Shirley Barwise Calgary Freenet Senior about being called "old"

John Dapp in Montoursville, PA, about humour on the Internet

Bill Foad in Toronto who is a paraplegic, always on the net with friends.

Ilona Vogel, 76, in Australia who e-mails her family all around the world.

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